AGENDA

Eau Claire County
Local Emergency Planning Committee
Wednesday, May 1, 2024, at 1:00 p.m.
Hybrid Meeting

In-Person Location:
Eau Claire County EOC
5061 US Highway 53, Eau Claire • Room 123

Access by Phone:
1-415-655-0001, Access Code: 25393022737##

Access Link:
https://eauclairecounty.webex.com/eauclairecounty/j.php?MTID=m8bd91f3c177961b5f6999e824450bb44
Password: HSfgmduV352

For those wishing to make public comment, you can submit your request to speak and/or written comment to Valerie Desio at valerie.desio@eauclairecounty.gov at least 60 minutes prior to the start of the meeting.

1. Call to Order and confirmation of meeting notice
2. Roll Call
3. Public Comment
4. Election of LEPC Chair – **Discussion/Action**
5. Election of LEPC Vice Chair – **Discussion/Action**
6. Appointment of LEPC Clerk – **Discussion/Action**
7. Appoint/Reappointments to the LEPC – **Information/Discussion**
    a. Katherine Schneider (Appointment – County Board)
    b. Connie Russell (Appointment – County Board)
    c. Marisa Stanley (Reappointment)
    d. Jack Running (Reappointment)
    e. Jason Knecht (Reappointment)
    f. James Hager (Reappointment)
    g. Matthew Jaggar (Reappointment)
8. Review/Approval of Committee Meeting Minutes – **Discussion/Action**
    a. February 29, 2024 — Pages 2-4
9. Review/Approval of 2024 Sulfuric Acid Battery Plan – **Discussion/Action** — Pages 5-49
10. Review/Approval of Off-Site Emergency Response Plans – **Discussion/Action**
    a. Central Storage and Warehouse — Pages 50-86
    b. Home City Ice — Pages 87-103
    c. Imperia Foods Inc — Pages 104-130
11. Local Hazardous Materials Spill Response Team Report **– Information/Discussion**
12. Emergency Management Updates **– Information/Discussion**
13. Next Meeting Date: To Be Determined – **Information**
14. Adjourn

Prepared by: Valerie Desio – Emergency Management Specialist

Please note: Upon reasonable notice, efforts will be made to accommodate the needs of disabled individuals through sign language, interpreters, or other auxiliary aids. For additional information or to request the service, contact the County ADACoordinator at 839-6945 (FAX) 839-1669 or (TDD) 839-4735 or by writing to the ADA Coordinator, Human Resources Department, Eau Claire County Courthouse, 721 Oxford Ave., Eau Claire, Wisconsin 54703.

MINUTES
Eau Claire County
Local Emergency Planning Committee
Thursday, February 29, 2024, at 4:00 p.m.
Hybrid Meeting

Present: Katherine Schneider, Darrell Christy, Benjamin Frederick, Jason Knecht, Jack Running, Matt Jagger, Jamie Burkhardt, Marisa Stanley, Robert King, Frank Neibauer, Thomas Lochner, James Hager, Sarah Seifert

Absent: Kyle Johnson, Diane Hunter, Dustin Walters

Others: Tyler Esh, Valerie Desio – Committee Clerk

Call to Order and confirmation of meeting notice

Chair Christy called the meeting to order at 4:00 p.m. and confirmed that the meeting was noticed.

Roll Call

The roll was called by the clerk, and it is noted above under present. A quorum was confirmed.

Review/Approval of Committee Meeting Minutes

The Committee reviewed the minutes from September 14, 2023. Motion by Katherine Schneider, seconded by Jack Running to approve the September 14, 2023 Meeting Minutes. All in favor, motion carried.

Review/Approval of 2024 Hazardous Materials Strategic Plan

Tyler Esh, Emergency Management Coordinator, outlined the Plan to the Committee. Valerie Desio, Emergency Management Program Assistant, noted changes made since the packet was sent include the updating of Attachment V: Facilities Subject to Emergency Planning and Attachment VI: Tier II Facilities to match most recent data submitted from WHOPRS. Received request from Marisa Stanley to correct page 3, group 2 header to match Section 301(c) and a request from Robert King to fix spelling errors on page 8, Section V. Motion by Frank Neibauer, seconded by James Hager, to approve the 2024 Hazardous Materials Strategic Plan with corrections as mentioned. All in favor, motion carried.

Review/Approval of LEPC Bylaws

Tyler Esh noted that the LEPC Bylaws have not changed in several years but puts forth several recommendations for the LEPC to consider. As the Eau Claire County Emergency Manager is the designated Coordinator of Information and Community Emergency Coordinator and not elected each year, recommended to change the language to “Eau Claire County Emergency

Manager will be designated". Second recommendation was to determine if changes needed to be made to Meeting Dates and Times section. Current language is LEPC will meet a minimum of one time per fiscal quarter. Last year, due to the holidays and no actionable items, no Q4 LEPC meeting was held. As per Section 301(c), the LEPC is only obligated to meet once per year. With input from several LEPC members, decision was made to change language to LEPC will meet a minimum of once per year and as needed. Motion by Jack Running, seconded by Frank Neibauer to approve the changes for meetings. All in favor, motion carried. Motion by Thomas Lochner, seconded by James Hager to approve the LEPC Bylaws with changes as mentioned. All in favor, motion carried.

LEPC Compliance Inspector Designation for FFY 2024

Tyler Esh noted that each fiscal year, the LEPC must designate a Compliance Inspector for EPCRA planning. Historically, this has been assigned to Wisconsin Emergency Management. Motion by Matt Jagger, seconded by Marisa Stanley to designate Wisconsin Emergency Management as the LEPC Compliance Inspector for FFY 2024. All in favor, motion carried.

Local Hazardous Materials Spill Response Team Report

Jamie Burkhardt, City of Eau Claire Fire Department updated the Committee on the latest hazardous materials incidents. From September 15 to February 29, there were:

- 47 events were CO related, 9 with CO present, 12 with detector issues.
- 41 events were natural gas leaks, many related to installation of Fiber.
- 4 event was a gas spill.
- 1 other hazardous conditions.
- 4 events were investigations.
- 4 event was oil or other chemical spill.
- 3 events were related to steam/vapor.

Emergency Management Updates

Tyler Esh updated the Committee on the following items regarding Emergency Management:

- The effects of HSHS/Prevea closures are being tracked by Emergency Management. The most noticeable effects for the LEPC will be the state updating the Radiological Emergency Plan (REP) to designate a new facility for radiological emergencies. Fire/EMS agencies are also affected by these closures and currently working with other hospitals to maintain access to supplies, medical control, and occupational health.

- There are several upcoming trainings, including MCI responder, Skywarn Weather Spotter, Community Resilience, PIO, ICS 300/400, Community Lifelines, and annual pipeline training. See the Emergency Management Calendar for more information.

- Emergency Management is working on several exercises for this year. They range from an Altoona Tornado TTX, Eau Claire EPA Hazardous Release TTX, Airport TTX, and a large-scale EOC exercise.

- Emergency Management has additional training material and equipment available to municipalities to use for event planning and training for active threats.

- Emergency Management currently has two ongoing grant projects: Commodity Flow Study and Hazard Mitigation Plan Update. The initial draft of the year 2 Commodity Flow Study was just released by our contractor. The final draft should be ready for the May LEPC meeting with the potential for a presentation from the contractor. The process of updating our Hazard Mitigation Plan has begun and several LEPC members are a part of the Planning Team. This will ensure the County is eligible for future available mitigation funding.

- Valerie Desio presented a new GIS tool that Emergency Management will be utilizing for future incidents and disasters. This tool will allow Emergency Management to compile information, make it easily readable, and keep the public informed. These tools will be utilized in upcoming exercises.

Next Meeting Date

The next meeting will be held on May 1, 2024 at 1pm following the EPA Hazardous Material Tabletop Exercise. Updated off-site plans will be ready for approval.

Adjourn

Motion by Frank Neibauer, seconded by James Hager to adjourn the meeting. All in favor.

Meeting adjourned at 4:38 p.m.

Respectfully Submitted,

Valerie Desio – Clerk, Local Emergency Planning Committee

EAU CLAIRE COUNTY

County Wide

Sulfuric Acid Battery Plan

MAY 2024

TABLE OF CONTENTS

I. INTRODUCTION/GENERAL INFORMATION

A. General Information

This County Wide Battery Plan will cover facilities with only batteries present on site using sulfuric acid in an electrolyte solution that meets the planning notification requirements of the Emergency Planning and Community Right-to-Know Act (EPCRA). The information in this plan has been organized in a manner to be user friendly to emergency responders.

A hazardous materials response would use the Incident Command System (ICS) to ensure that all responders and their support assets are coordinated for an effective and efficient response, which is necessary to (1) save lives, and (2) mitigate property and environmental damage. Certain resources are identified which can provide specialized hazardous materials response equipment and capabilities. Personal protective equipment and devices such as respiratory protective devices, clothing, equipment, etc., will be utilized, as the incident requires.

B. Plan Limitations

This Countywide Battery Plan meets the minimum EPCRA planning requirements that were first referenced in the "Guide for Complying with SARA Hazardous Materials Off-Site Planning Requirements" (September 1989). The vulnerability zones set forth in this Plan are based on the EPA's Technical Guidance for Hazardous Analysis. The zones are based on a credible worst-case scenario and identify the potential area for impact should an air-borne release of electrolyte solution with sulfuric acid occur.

The vulnerability zones are NOT intended to be used as a guide for population protection in fire-related incidents. Fire incidents were not considered in the development of this plan and the plan provides basic information about the facility for first responders to employ. However, in an actual fire situation at this facility, the Incident Commander is strongly recommended to reference the fire department's own individual agency pre-emergency plans and standard operation procedures as well as Eau Claire County's Emergency Operations Plan (EOP).

C. County Specific Information

Emergency Support Function (ESF) 4: Firefighting, as it may relate to this facility when making decisions at an incident involving fire. Additional resource materials should be utilized that will assist in the response to a chemical emergency.

Emergency Support Function (ESF) 10: Hazardous Materials

Further, fire departments that would respond to an incident at Battery facilities with batteries containing electrolyte solution of sulfuric acid are strongly encouraged to meet

with facility representatives to determine ways to minimize an event at the facility and to determine what additional information and factors should be taken into consideration in the event of a fire, should one occur.

The field incident commander shall determine the actual response to an incident. Vulnerability zones will be determined depending on wind speed and direction, the amount of material released and other pertinent factors.

Alert, Warning, and Emergency Public Information procedures are covered in the Eau Claire County Emergency Operations Plan (EOP) Emergency Support Function (ESF) 2: Communications and Warning.

II. LIST OF PLANNING FACILITIES

All facilities use sulfuric acid batteries creating a VULNERABILITY ZONE (Credible Worst-Case Scenario) of <0.1 miles or less than 528 feet.

FAC ID #	FACILITY NAME	FACILITY ADDRESS	MUNICIPALITY
120264	American Phoenix, Inc.	800 Wisconsin Street, 11 Eau Claire, Wisconsin 54703	City of Eau Claire
13019	AT&T – PK0106	304 South Dewey Street Eau Claire, Wisconsin 54701	City of Eau Claire
933	AT&T – PK0116	310 North Dewey Street Eau Claire, Wisconsin 54703	City of Eau Claire
203435	Dakota Supply Group	3413 Truax Court Eau Claire, Wisconsin 54703	
64496	Eau Claire Cooperative Oil Co.	4970 Kane Road Eau Claire, Wisconsin 54703	Town of Union
202685	Ferguson – 1676	2626 Truax Boulevard Eau Claire, Wisconsin 54703	City of Eau Claire
201315	First Supply LLC – Eau Claire	596 Cameron Street Eau Claire, Wisconsin 54703	City of Eau Claire
202051	Fleet Farm	3165 Old Town Hall Road Eau Claire, Wisconsin 54701	City of Eau Claire
196827	Great Lakes Coca-Cola Eau Claire Distribution	2020 Truax Boulevard Eau Claire, Wisconsin 54703	City of Eau Claire
150128	Hutchinson Technology	2435 Alpine Road	City of Eau Claire
137176	Indianhead Foodservice Distributor	313 Hastings Place Eau Claire, Wisconsin 54702	City of Eau Claire

FAC ID #	FACILITY NAME	FACILITY ADDRESS	MUNICIPALITY
601127	Mayo Clinic Health System Northwest Wisconsin Region, Inc.	1221 Whipple Street Eau Claire, Wisconsin 54702	City of Eau Claire
173687	MCI (EUCRWI)(WIEUCRWI)	333 Putnam Street Eau Claire, Wisconsin 54703	City of Eau Claire
143371	Menard, Inc. – Eau Claire	5101 Menard Drive Eau Claire, Wisconsin 54703	Town of Union
378183	Nestle Healthcare Nutrition, Inc	3555 Preston Road Eau Claire, Wisconsin 54702	City of Eau Claire
161165	Sam's Club #8185	4001 Gateway Drive Eau Claire, Wisconsin 54701	City of Eau Claire
200730	Silver Spring Foods	2424 Alpine Road Eau Claire, Wisconsin 54703	City of Eau Claire
198598	WI-4410_Charter Communications_Eau Claire	1048 Mary Lane Eau Claire, Wisconsin 54703	Town of Union
161672	Wal-Mart #1669	3915 Gateway Drive Eau Claire, Wisconsin 54701	City of Eau Claire
203447	WSC Eau Claire	4200 White Avenue, Eau Claire, Wisconsin 54703	City of Eau Claire
99570	Xcel Energy Eau Claire Substation	Old Wells Road Eau Claire, Wisconsin 54703	City of Eau Claire

III. RESPONSE/TECHNICAL SUPPORT

A. Response

Eau Claire County has response elements in place with the ability to meet normal emergency response needs: performing firefighting, hazardous materials response, law enforcement, emergency medical services, and rescue tasks. Eau Claire County does have equipment and resources available to respond to incidents involving hazardous materials.

The City of Eau Claire Fire Department Hazardous Materials Response Team serves as the State Regional Hazardous Materials Response Team and is available to provide hazardous materials response to communities in Eau Claire County.

Other local hazardous materials response resources include:

i. Eau Claire County Hazardous Materials Team located at: City of Eau Claire Fire Department

ii. Eau Claire County's Municipal Fire Departments are located at:

- Altoona Fire Department
- Augusta-Bridge Creek Fire Department
- Boyd Fire Department
- DNR Wildland Fire
- Eau Claire Fire Department
- Fairchild Fire Department
- Fall Creek Area Fire District
- Mondovi Fire Department
- Osseo Rural Fire Department
- Stanley Fire Department
- Strum Fire Department
- Township Fire Department

B. Technical Support

Safety Data Sheets (SDS) for the battery electrolyte solution with sulfuric acid present in Eau Claire County battery planning facilities are located in Attachment A of this plan for:

- Battery – Retail Sales
- Battery – UPS (uninterruptable power supply)
- Battery – Material Handling Equipment
- Battery – Mobility Equipment
- Battery – Other

The following entities may be of assistance in the event of an incident involving the battery electrolyte solution with sulfuric acid:

CHEMTREC	800-424-9300
National Response Center 24-hr phone number	800-424-8802
Wisconsin Emergency Management Duty Officer	715-829-8499
County Hazardous Materials Team	715-839-5013

IV. VULNERABILITY ANALYSIS

A. Battery Types

- Retail Sales
- UPS (uninterruptable power supply)
- Material Handling Equipment
- Mobility Equipment
- Other

B. Assumptions

Vulnerability Zones were determined using the CAMEO program as the result of a release of sulfuric acid from the largest battery or group of batteries within a 10-minute time period. Even in a worst-case scenario, it is improbable that all the electrolyte solution with sulfuric acid will be released at one time.

The worst-case scenario for battery facilities with sulfuric acid present in electrolyte solution would involve the following: the largest battery or shipment of batteries is destroyed during a catastrophic event releasing sulfuric acid in a 30% or less concentration battery electrolyte solution. According to calculations derived from using CAMEO for Hazard Analysis, a release of sulfuric acid in a 30% or less concentration would pose a hazard of less than 0.1 mile or 528 feet.

In a worst-case scenario (duration: 10 minutes; wind speed: 3.35 mph; ground: urban; stability class: F; LOC: 0.008 gm/m^3) a release of battery electrolyte solution with sulfuric acid would result in a vulnerability zone that would stay within the perimeter of the facility and would not affect any special facilities. Each battery planning facility that utilizes battery electrolyte solution with sulfuric acid has a facility on-site emergency plan. Access to the facilities creates no problems as all streets are two-way and are not major traffic routes.

V. EVACUATION/SHELTERING

The determination to shelter in place or evacuate will be made by the on-scene commander, as appropriate. Under some circumstances time may not allow for a safe evacuation, especially when extremely toxic chemical fumes are involved. An evacuation under these considerations may expose the population to dangerous toxic chemicals and the decision may be made to shelter in place. Preferred areas for protective sheltering would be interior hallways, rooms without windows or exterior doors, enclosed stairways and rooms on the side of the building away from where the hazard is approaching. Doors, windows and other potential air leaks should be sealed up to prevent toxic fumes from entering.

General Evacuation/Shelter Procedures are covered in the Eau Claire County Emergency Response Plan (EOP) ESF 1 includes definitions of safety procedures and lists primary agencies and their responsibilities for shelter-in-place procedures. If evacuation is deemed necessary, experience indicates that shelter space would be needed for only 30% of the population within the initial isolation and evacuation zones and the remaining 70% would seek shelter with family or friends outside the risk zone.

VI. SPECIAL FACILITIES

No Special Facilities are affected. In a credible worst-case scenario, a release of battery electrolyte solution with sulfuric acid would result in a vulnerability zone that would stay within the perimeter of the facility and would not affect any special facilities. Each Battery planning facility utilizing batteries that contain electrolyte solution with sulfuric acid has a facility on-site emergency plan and designated hazardous materials clean up contractor.

VII. TRANSPORTATION/SPECIAL CONSIDERATIONS

Hazardous materials in transport move through Eau Claire County in significant quantities each day. There is one major interstate highway, I94, and several major state highways. A Transportation Route Map of Eau Claire County is included in Attachment B.

Note: There are no local ordinances in Eau Claire County that mandate specific routes for vehicles carrying EHSs. Thus, EHSs may be transported over any local, state, or federal highway for which weight limits are met.

VIII. DISTRIBUTION LIST

Facilities
Local Fire Department(s)
Eau Claire County Emergency Management/Local Emergency Planning Committee
Eau Claire County Hazmat Team
Wisconsin Emergency Management West Central Regional Office

Attachment A – Sulfuric Acid Safety Data Sheet (SDS)

GHS Safety Data Sheet

Revision Issued: 6/08/2014 Supercedes: 3/26/2013 First Issued: 1/02/1986

Section 1 - Chemical Product And Company Identification

Product Identifier: Sulfuric Acid (15%-93%)
Synonyms/Common Names:
H2SO4; Oil of Vitriol; Spirit of Sulfur; Hydrogen Sulfate; Oleum
Product Use & Restrictions: Refer to label

CAS Number: 7664-93-9 HBCC MSDS No. CS18100

Hill Brothers Chemical Company
1675 No. Main Street, Orange, California 92867
Telephone No: 714-998-8800 | Outside CA: 800-821-7234
Emergency: Chemtrec: 800-424-9300

Section 2 - Hazard Identification

Classifications of the Product:
Skin Corrosion/Irritation – Category 1
Serious Eye Damage/Eye Irritation – Category 1
Corrosive to Metals – Category 1

Labels | Signal Word: DANGER

Pictograms:

Hazard Statements:
H314: Causes severe skin burns and eye damage
H290: May be corrosive to metals

Precautionary Statements:
P280: Wear protective gloves. Wear eye or face protection. Wear protective clothing.
P264: Wash hand thoroughly after handling.
P304 + P340 + P310: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or physician.
P301 + P310 + P330 + P331: IF SWALLOWED: Immediately call a POISON CENTER or physician.
P303 + P361 + P353 + P363 + P310: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. Wash contaminated clothing before reuse. Immediately call a POISON CENTER or physician.
P305 + P351 + P338 + P310: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do so. Continue rinsing. Immediately call a POISON CENTER or physician.
P405: Store locked up.

P501: Dispose of contents and container in accordance with all local, regional, national and international regulations.

Section 3 – Composition/Information on Ingredients

Chemical Name: Sulfuric Acid
Synonyms/ Common Names: H_2SO_4; Oil of Vitriol; Spirit of Sulfur; Hydrogen Sulfate; Oleum
CAS Number: 7664-93-9

Section 4 - First Aid Measures

Ingestion: If liquid sulfuric acid or solutions containing sulfuric acid have been swallowed and the person is conscious, give him 8 oz. of water or milk of water or milk to children under 5), immediately to dilute the sulfuric acid. Do NOT induce vomiting. Do not attempt to make the exposed person vomit. Do not leave victim unattended. GET MEDICAL ATTENTION IMMEDIATELY.
Inhalation: If a person breathes in large amounts of sulfuric acid, move the exposed person to fresh air at once. If breathing has stopped, perform artificial respiration. If breathing is difficult, give oxygen. Keep the affected person warm and at rest. GET MEDICAL ATTENTION AS SOON AS POSSIBLE.
Skin: If liquid sulfuric acid or solutions containing sulfuric acid get on the skin, immediately flush the contaminated skin with water for at least 15 minutes. If skin surface is damaged, apply a clean dressing. If liquid sulfuric acid or solutions containing sulfuric acid penetrate through the clothing, immediately remove the clothing, shoes and constrictive jewelry under a safety shower and continue to wash the skin for at least 15 minutes. GET MEDICAL ATTENTION IMMEDIATELY.
Eyes: If liquid sulfuric acid or solutions containing sulfuric acid get into the eyes, flush eyes immediately with a directed stream of water for at least 30 minutes while forcibly holding eyelids apart to ensure complete irrigation of all eye and lid tissue. GET MEDICAL ATTENTION IMMEDIATELY. Contact lenses should not be worn when working with this chemical.
Medical Conditions Generally Aggravated by Exposure: Persons with pre-existing skin disorders and/or respiratory disorders (e.g. Asthma-like conditions) may be more susceptible to the effects of this material, and may be aggravated by exposure to this material.
Summary of Acute Health Hazards: Concentrated sulfuric acid will effectively remove the elements of water from many organic materials with which it comes in contact. It is even more rapidly injurious to mucous membranes and exceedingly dangerous to the eyes.
Ingestion: Corrosive. Causes serious burns of the mouth or perforation of the esophagus or stomach. May be fatal if swallowed.
Inhalation: Corrosive and highly toxic. May be harmful or fatal if inhaled. May cause severe irritation and burns of the nose, throat and respiratory tract.
Skin: Corrosive. Splashes on the skin will cause severe skin burns. Burning and charring of the skin are a result of the great affinity for, and strong exothermic reaction with, water. Direct contact can be severely irritating to the skin and may result in redness, swelling, burns and severe skin damage.
Eyes: Corrosive. Direct contact with the liquid or exposure to vapors or mists may cause stinging, tearing, redness, swelling, corneal damage and irreversible eye damage. Splashes in the eyes will cause severe burns. Contact lenses should not be worn when working with this chemical.
Effects of Overexposure: May cause severe irritation and burns of the mouth,

nose, throat, respiratory and digestive tract, coughing, nausea, vomiting, abdominal pain, chest pain, pneumonitis (inflammation of the fluid in the lungs), pulmonary edema (accumulation of the fluid in the lungs), and perforation of the stomach. Overexposure to acid mists has been reported to cause erosion to tooth enamel.
Note to Physicians: Sulfuric acid is reported to cause pulmonary function impairment. Periodic surveillance is indicated. Sulfuric acid may cause acute lung damage. Surveillance of the lungs is indicated. Ingestion may cause gastroesophageal perforation. Perforation may occur within 72 hours, but along with abscess formation, can occur weeks later. Long term complications may include esophageal, gastric or pyloric strictures or stenosis.

Section 5 - Fire Fighting Measures

Extinguishing Media: Fires involving small amount of combustibles may be smothered with suitable dry chemical, soda ash, lime, sand or CO2. Use water on combustibles burning in vicinity of this material but use care as water applied directly to this acid result in evolution of heat and causes splattering.
Unusual Fire and Explosion Hazards: Not flammable but highly reactive and capable of igniting finely divided combustible materials on contact. Reacts violently with water and organic materials with evolution of heat. If involved in fire, may release hazardous oxides of sulfur. Vapors are heavier than air and may accumulate in low areas. Containers exposed to extreme heat may rupture due to pressure buildup. Contact with common metals may generate hydrogen, which can form flammable mixture with air. Fire may produce irritating, corrosive, and/or toxic gases.
Special Firefighting Procedures: Causes severe, deep burns to tissue; very corrosive effect. Sulfuric Acid is extremely slippery. Emergency responders in the danger area should wear bunker gear and self-contained breathing apparatus for fires beyond the incipient stage (29CFR 1910.156). In addition, wear other appropriate protective equipment as conditions warrant (see Section 8). Water reactive. Contact with water may generate heat. Isolate damage area, keep unauthorized personnel out. If tank, railcar, or tank truck is involved in a fire, isolate for ½ mile in all directions. Consider initial evacuation for ½ mile in all directions. Stop spill/release if it can be done with minimal risk. Move undamaged containers from danger area if it can be done with minimal risk. Fires involving small amounts of combustibles may be smothered with suitable dry chemicals. Use water on combustibles burning but avoid using water directly on acid as it results in evolution of heat and causes splattering.
NFPA Rating: Health - 3; Flammability - 0; Instability – 2; Special Hazard: -W-
0=Insignificant 1=Slight 2=Moderate 3=High 4=Extreme

Section 6 - Accidental Release Measures

Personal Precautions: If sulfuric acid is spilled or leaked, ventilate area. Stay upwind and away from spill release. Avoid discharge into drains, water courses or onto the ground. Persons not wearing protective equipment and clothing should be restricted from areas of spills or leaks until cleanup has been completed.
Protective Equipment: Wear appropriate protective equipment including respiratory protection as conditions warrant (see Section 8).
Emergency Procedures: Use Caution around spill area, Sulfuric Acid is extremely slippery.
Methods of Containment and Clean-Up: Collect spilled or leaked material in the most convenient and safe manner for reclamation or for disposal in a secured sanitary landfill. Sulfuric acid should be absorbed in vermiculite, dry sand, earth, or a

similar material. It may also be diluted and neutralized. Add slowly to solution of soda ash and calcium hydroxide aka: slaked lime with stirring.

Section 7 - Handling and Storage

Safe Handling: Protect against physical damage and water. Keep containers closed. Sulfuric Acid is extremely slippery. Do not enter confined spaces such as tanks or pits without following proper entry procedures such as ASTM D-4276.
Storage: To prevent ignition of hydrogen gas generated in metal containers (from metal contact) smoking, open flames and sparks must not be permitted in storage areas. This product has a great affinity for water, abstracting it from the air and also from many organic substances; hence it will char wood, etc. When diluting, the acid should be added to the diluent. Separate from carbides, chlorates, fulminates, nitrates, picrates, powdered metals, and combustible materials. Keep away from strong oxidizing agents including oxygen and chlorine.
Work/Hygienic Practices: Avoid contact with the skin and avoid breathing vapors. Do not eat, drink, or smoke in work area. Wash hands before eating, drinking, or using restroom. Do NOT place food, coffee or other drinks in the area where dusting or splashing of solutions is possible.
Ventilation: General mechanical ventilation (typically 10 air changes per hour) may be sufficient to keep sulfuric acid vapor concentrations within specified time-weighted TLV range. If general ventilation proves inadequate to maintain safe vapor concentrations, supplemental local exhaust may be required.

Section 8 - Exposure Controls/Personal Protection

			Exposure Limits (TWAs) in Air		
Chemical Name	CAS Number	%	ACGIH TLV	OSHA PEL	STEL
Sulfuric Acid (H_2SO_4)	7664-93-9	15-93	0.2 mg/m³	1 mg/m³	3 mg/m³
Sulfur Dioxide	7446-09-5	< 2	2 ppm	5 ppm	5 ppm

Engineering Controls: See Section 7: Ventilation

Personal Protection

Personal Protective Measures: Good industrial hygiene practices recommend that engineering controls be used to reduce environmental concentrations to the permissible exposure level. However, there are some exceptions where respirators may be used to control exposure. Respirators may be used when engineering and work practice controls are not technically feasible, when such controls are in the process of being installed, or when they fail and need to be supplemented. If the use of respirators is necessary, a NIOSH/MSHA approved air purifying respirator with N95 filter may be used under conditions where airborne concentrations are expected to exceed exposure limits (see Section II). Protection provided by air purifying respirators is limited (see manufacturers respirator selection guide). Use a positive pressure air supplied respirator if there is potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air purifying respirators may not provide adequate protection. A respiratory protection program that meets OSHA'a 29 CFR 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant a respirator's use.
Protective Clothing: Employees should be provided with and required to use

impervious clothing, gloves, face shields (eight-inch minimum), and other appropriate protective clothing necessary to prevent any possibility of skin contact with liquid sulfuric acid or solutions containing more than 1% sulfuric acid by weight.
Eye Protection: Employees should be provided with and required to use splash-proof safety goggles where there is any possibility of liquid sulfuric acid or solutions containing sulfuric acid contacting the eyes. Contact lenses should not be worn when working with this chemical.
Other Protective Clothing or Equipment: Rubber apron, rubber boots, eyewash stations and safety showers must be available in the immediate work area for emergency use.

Section 9 - Physical and Chemical Properties

Appearance: Colorless to dark brown
Odor: Odorless
Odor Threshold: > 1 mg/m^3
pH: 0.3 (1N Solution)
Melting Point/Freezing Point: 11°C; 51.8°F
Initial Boiling Point/Range: 337°
Flash Point: Non-flammable
Evaporation Rate (N-Butyl Acetate=1): < 1
Flammability: N/A
Upper/Lower Explosive Limit: N/A
Vapor Pressure(mmHg): <0.00120 mm
Vapor Density(Air=1): 3.4
Relative Density: N/A
Solubility in Water: 100%
Partition Coefficient: N/A
Autoignition Temperature: N/A
Decomposition Temperature: N/A
Viscosity: N/A

% Acid	15	20	30	35	36	40	50	72	75-93
Specific Gravity	1.105	1.14-1.15	1.23	1.27	1.27	1.3	1.4	1.63	1.67-1.84
Weight/Gallon in Lbs.	9.213	9.5	10.246	10.55	10.6	10.89	11.73	13.6	13.9-15.4

Molecular Weight: 98
% Volatiles: Negligible
How to detect this compound: Sampling and analyses may be performed by collection of sulfuric acid on a cellulose membrane filter, followed by extraction with distilled water and isopropyl alcohol, treatment with perchloric acid, and titration with barium perchlorate. Also, detector tubes certified by NIOSH under 42 CFR Part 84 or other direct-reading devices calibrated to measure sulfuric acid may be used.

Section 10 - Stability and Reactivity

Reactivity, Chemical Stability, Possibility of Hazardous Reactions or Polymerization: Sulfuric Acid reacts vigorously, violently or explosively with many organic and inorganic chemicals and with water. Hazardous Polymerization will not occur.
Conditions to Avoid: Temperatures above 150°F. Exposure to moist air or water.
Incompatibilities Materials: Contact of acid with organic materials (such as chlorates, carbides, fulminates, and picrates), alkaline materials and water may cause fires and explosions. Contact of acid with metals may form toxic sulfur dioxide fumes and flammable hydrogen gas. Contact with hypochlorites (e.g., chlorine bleach), sulfides, or cyanides will produce toxic gases.
Hazardous Decomposition Products: Toxic gases and vapors (such as sulfuric

acid fume, sulfur dioxide, and carbon monoxide) may be released when sulfuric acid decomposes. Decomposes to water and sulfur trioxide above 644°F.

Section 11 - Toxicological Information

Routes of Exposure: Sulfuric acid can affect the body if it is inhaled or if it comes in contact with the eyes or skin. It can also affect the body if it is swallowed. Points of Attack: Sulfuric acid attacks the respiratory system, eyes, skin, teeth, and lungs.

Symptoms related to physical, chemical, and toxicological characteristics: Workers exposed to industrial sulfuric acid mist showed a statistical increase in laryngeal cancer. This suggests a possible relationship between carcinogenesis and inhalation of sulfuric acid mist.

Acute and Chronic Effects: Sulfuric acid mist severely irritates the eyes, respiratory tract, and skin. Concentrated sulfuric acid destroys tissue due to its severe dehydrating action, whereas the dilute form acts as a mild irritant due to acid properties. A worker sprayed in the face with liquid fuming sulfuric acid suffered skin burns of the face and body, as well as pulmonary edema from inhalation. Splashed in the eye, the concentrated acid causes extremely severe damage, often leading to blindness, whereas dilute acid produces more transient effects from which recovery may be complete. Repeated exposure of workers to the mist causes chronic conjunctivitis, tracheobronchitis, stomatitis, and dermatitis, as well as dental erosion. While ingestion of the liquid is unlikely in ordinary industrial use, the highly corrosive nature of the substance may be expected to produce serious mucous membrane burns of the mouth and esophagus.
Numerical Measures of Toxicity: The LC50 of mist of 1-micron particle size for an 8 hour exposure was 50 mg/m³ for adult guinea pigs and 18 mg/m³ for young animals. Continuous exposure of guinea pigs to 2 mg/m³ for 5 days caused pulmonary edema and thickening of the alveolar walls; exposure of guinea pigs to 2 mg/m³ for 1 hour caused an increase in pulmonary airway resistance from reflex bronchoconstriction. Sequelae were pulmonary fibrosis, residual bronchitis, and pulmonary emphysema; in addition, necrosis of the skin resulted in marked scarring. In human subjects, concentrations of about 5 mg/m³ were objectionable, usually causing cough, an increase in respiratory rate, and impairment of ventilatory capacity. Workers exposed to concentrations of 12.6 to 35 mg/m³ had a markedly higher incidence of erosion and discoloration of teeth than was noted in unexposed individuals.
Carcinogenicity Lists:
ACGIH: A2 – Suspected Human Carcinogen (Sulfuric Acid contained in strong inorganic acid mists)
National Toxicology Program (NTP): Known carcinogen (listed as 'Strong inorganic acid mists containing Sulfuric Acid).
International Agency for Research on Cancer (IARC) Monograph: Group 1 carcinogen (Sulfuric Acid)
Occupational Safety & Health Administration (OSHA) Regulated: Yes
Warning
This product contains Sulfuric Acid, listed as 'Strong inorganic acid mists contain', a chemical known to the State of California to cause cancer.

Section 12 - Ecological Information

Ecotoxicity: Fish: Bluegill/Sunfish: 49 mg/L; 48 Hr; TLm (tap water @ 20°C)

Fish: Bluegill/Sunfish: 24.5 ppm; 48 Hr; TLm (fresh water)
Persistence and degradability: Sulfuric acid (98% solution) is soluble in water and remains indefinitely in the environment as sulfate.
Bioaccumulative Potential: Sulfuric acid (98% solution) has low potential for bioaccumulation.
Mobility in Soil: Sulfuric acid (98% solution) is soluble in water and has high mobility in soil. During transport through the soil, sulfuric acid (98% solution) will dissolve some of the soil material; in particular, the carbonate based materials. The acid will be neutralised to some degree with adsorption of the proton also occurring on clay materials. However, significant amounts of acid are expected to remain for transport down towards the ground water table. Upon reaching the ground water table, the acid will continue to move, now in the direction of the ground water flow. Lime addition may be required to rectify low pH resulting from sulfuric acid (98% solution) spillages.

Section 13 - Disposal Considerations

Sulfuric acid may be placed in sealed containers or absorbed in vermiculite, dry sand, earth, or a similar material and disposed. Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification. Empty containers must be handled with care due to material residue.

Section 14 - Transport Information

UN#:
UN2796, (with not more than 51% acid)
UN1830, (with more than 51% acid)
UN/DOT Proper Shipping Name: Sulfuric Acid
Transport Hazard Class: 8
Packing Group: II
Marine Pollutant: Yes
Transport in Bulk: N/A
Special Precautions: N/A

Section 15 - Regulatory Information

Sulfuric Acid
Section 302 Extremely Hazardous Substance (EHS): CAS # 7664-93-9
1000 Lbs. (454 Kilograms) (85 Gals.) Threshold Planning Quantity (TPQ)
Section 304 Extremely Hazardous Substance (EHS): CAS # 7664-93-9
1000 Lbs. (454 Kilograms) (85 Gals.) Reportable Quantity (RQ)
CERCLA Hazardous Substance: CAS #7664-93-9
1000 Lbs. (454 Kilograms) (85 Gals.) Reportable Quantity (RQ)
SARA 313: This material contains 20-99% Sulfuric Acid (CAS# 7664-93-9), which is subject to the reporting requirements of Section 313 of SARA Title III and 40 CFR Part 373. Sulfuric Acid (acid aerosols including mists, vapors, gas, fog, and other airborne forms of any particle size).
Sulfur Dioxide
Section 302 Extremely Hazardous Substance (EHS): CAS # 7446-09-5
500 Lbs. (227 Kilograms) (42.5 Gals.) Threshold Planning Quantity (TPQ)
Section 304 Extremely Hazardous Substance (EHS): CAS # 7446-09-5
500 Lbs. (227 Kilograms) (42.5 Gals.) Reportable Quantity (RQ)

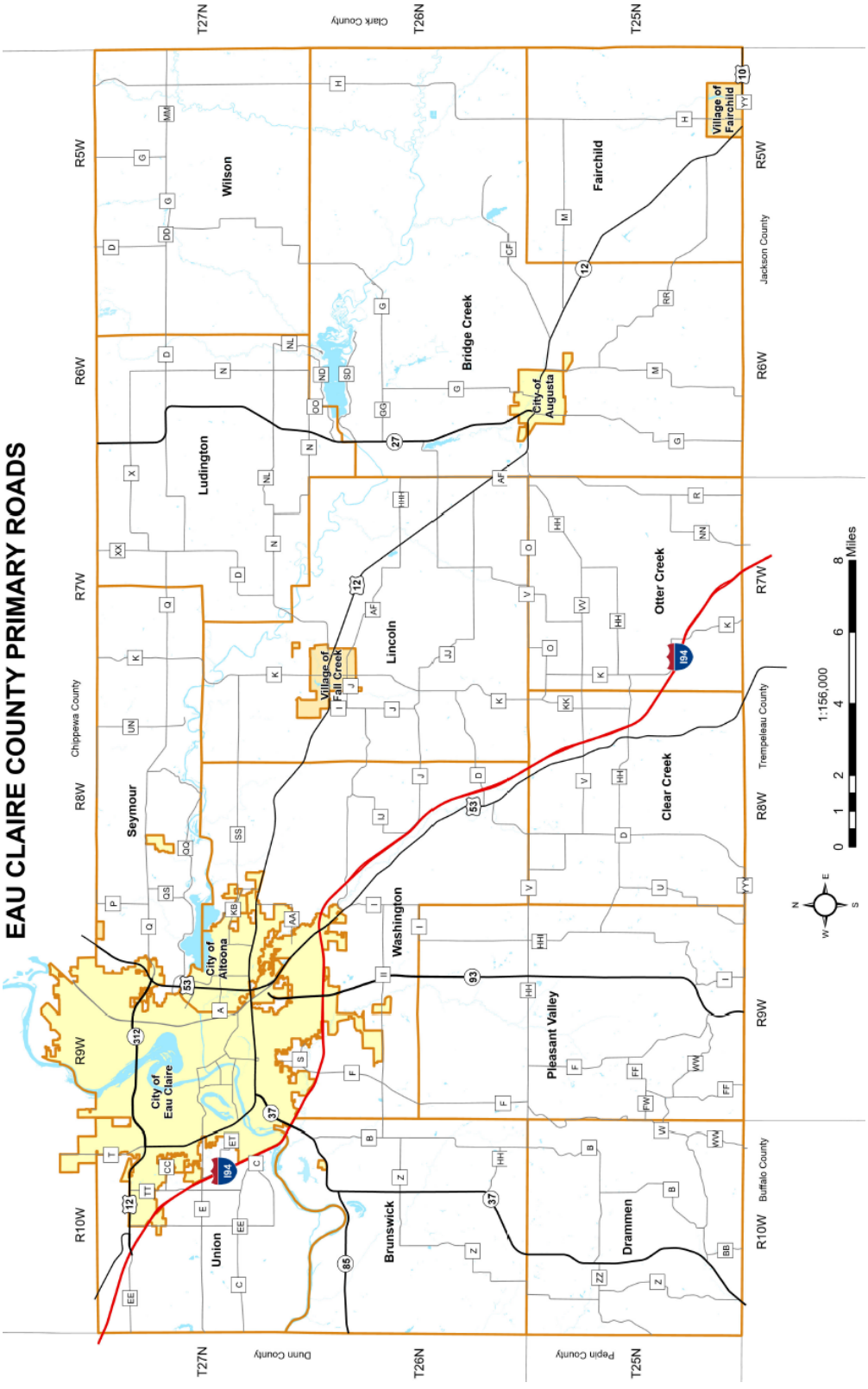
Section 16 - Other Information

Chemical Family/Type: Inorganic Acid
Sections changed since last revision: 2, 4, 6, 8, 9, 13

IMPORTANT! Read this MSDS before use or disposal of this product. Pass along the information to employees and any other persons who could be exposed to the product to be sure that they are aware of the information before use or other exposure. This MSDS has been prepared according to the OSHA Hazard Communication Standard [29 CFR 1910.1200]. The MSDS information is based on sources believed to be reliable. However, since data, safety standards, and government regulations are subject to change and the conditions of handling and use, or misuse are beyond our control, **Hill Brothers Chemical Company** makes no warranty, either expressed or implied, with respect to the completeness or continuing accuracy of the information contained herein and disclaims all liability for reliance thereon. Also, additional information may be necessary or helpful for specific conditions and circumstances of use. It is the user's responsibility to determine the suitability of this product and to evaluate risks prior to use, and then to exercise appropriate precautions for protection of employees and others.

Attachment B – Maps

Transportation Route Map



Attachment C – Facility Battery Plans

Appendix for Each Battery Planning Facility

Section II. includes the table of Sulfuric Acid battery planning facilities located within Eau Claire County that meet the requirements of this County Wide Sulfuric Acid Battery Plan. Each of the facilities identified in Section II. have abbreviated sulfuric acid battery plans/appendices present in WHOPRS that includes the facility specific information with regard to their EHS Sulfuric Acid batteries. This Attachment includes Appendices for all facilities identified in Section II.

Planning Cycle

Facility Appendices will be updated during the fiscal year that the facility is scheduled for renewal based on the planning cycle of an update every three years set by Eau Claire County Emergency Management. A listing of facilities and their most recent and upcoming renewal dates are listed below. Note: Facilities that are bolded are being updated in this plan.

Facility ID	Facility	Last Updated	Next Update
120264	American Phoenix, Inc.	FFY 2023	FFY 2026
13019	**AT&T – PK0106**	**FFY 2024**	**FFY 2027**
933	**AT&T – PK0116**	**FFY 2024**	**FFY 2027**
199193	**AT&T – S. Barstow St EQRM-P10602**	**FFY 2024**	**CLOSED-OUT**
203328	**Costco Wholesale #1664**	**NEW**	**FFY 2027**
202533	Core-Mark Eau Claire	NEW	FFY 2025
203435	**Dakota Supply Group**	**NEW**	**FFY 2026**
64496	Eau Claire Cooperative Oil Company	FFY 2022	FFY 2025
202685	Ferguson – 1676	FFY 2022	FFY 2025
201315	First Supply LLC – Eau Claire	FFY 2022	FFY 2025
202051	Fleet Farm	FFY 2022	FFY 2025
196827	**Great Lakes Coca Cola Eau Claire Distribution**	**FFY 2024**	**FFY 2027**
150125	Hutchinson Technology	FFY 2024	FFY 2027
137176	**Indianhead Foodservice Distributor**	**FFY 2024**	**FFY 2027**
601127	Mayo Clinic Health System– Northwest Wisconsin Region	FFY 2023	FFY 2026
173687	MCI (EUCRWI)(WIEUCRWI)	FFY 2022	FFY 2025
143371	**Menard, Inc – Eau Claire**	**FFY 2024**	**FFY 2027**
202918	Nestle Healthcare Nutrition	FFY 2023	FFY 2026
161165	Sam's Club	FFY 2023	FFY 2026
200730	Silver Spring Foods	FFY 2023	FFY 2026
161672	Wal-Mart #1669	FFY 2023	FFY 2026
198598	WI_4410_Charter Communications_ Eau Claire	FFY 2022	FFY 2025
203447	**WSC Eau Claire**	**NEW**	**FFY 2025**
99570	**Xcel Energy – Eau Claire Substation**	**FFY 2024**	**FFY 2027**

ATTACHMENT C, APPENDIX FOR FACILITY ID #13019
AT&T PK0106
304 S DEWEY ST
EAU CLAIRE WI, WI 54701

Facility Coordinator:
Darren Merhalski
Property Manager
Work #: 262-225-6965
24 Hr. #: 920-939-1175
Email: dm488q@att.com

1st Alternate Coordinator:
Jeremy McGrue
National EPCRA Manager
Work #: 469-295-2319
24 Hour #: 800-566-9357
Email: jeremy.mcgrue@att.com

Extremely Hazardous Substance Present:

CAS. NO	CHEMICAL	MAX. AMT.	VUL.ZONE
7664-93-9	*Sulfuric Acid	7,968 lbs.	< 0.1 mi.

*EPA Extremely Hazardous Substance

Assumptions: This AT&T Facility provides backup power during power failures. The facility will operate for five to eight hours on battery without a generator. With generator power the facility can maintain service for an extended time as long as fuel is available. Sulfuric acid is present at 7,968 lbs. in a concentration of 30% or less, battery electrolyte solution. While the facility has 7,968 lbs. of sulfuric acid on site, the amount in the largest container is 46 lbs. The credible worst-case scenario involves a release of 46 lbs. of sulfuric acid in battery electrolyte solution at a concentration of 30% or less. The result is a vulnerability zone that would stay within the perimeters of the facility and would not affect any special facilities off-site. The maximum number of employees affected is 18.

Scenario: The credible worst-case scenario for release would involve the largest battery/group of interconnected batteries that is damaged during operation or delivery releasing 46 lbs. of sulfuric acid in a concentration of 30% or less in a battery electrolyte solution. According to calculations derived from using Cameo for Hazard Analysis, the release would pose a hazard of <0.1 mile or 528 feet.

Primary Emergency Responders:

City of Eau Claire Police Department	715-839-4972
Eau Claire Fire Department	715-839-5013
Eau Claire Fire Department EMS	715-839-5013
Eau Claire County Emergency Management	715-829-8499

Special Resources Available at / from facility:
- Monitored by two off-site alarm systems
- Spill kit

Special Resources Needed for Response:
The facility will not respond to hazardous materials emergency but will evacuate the facility and await the response to their 911 call.

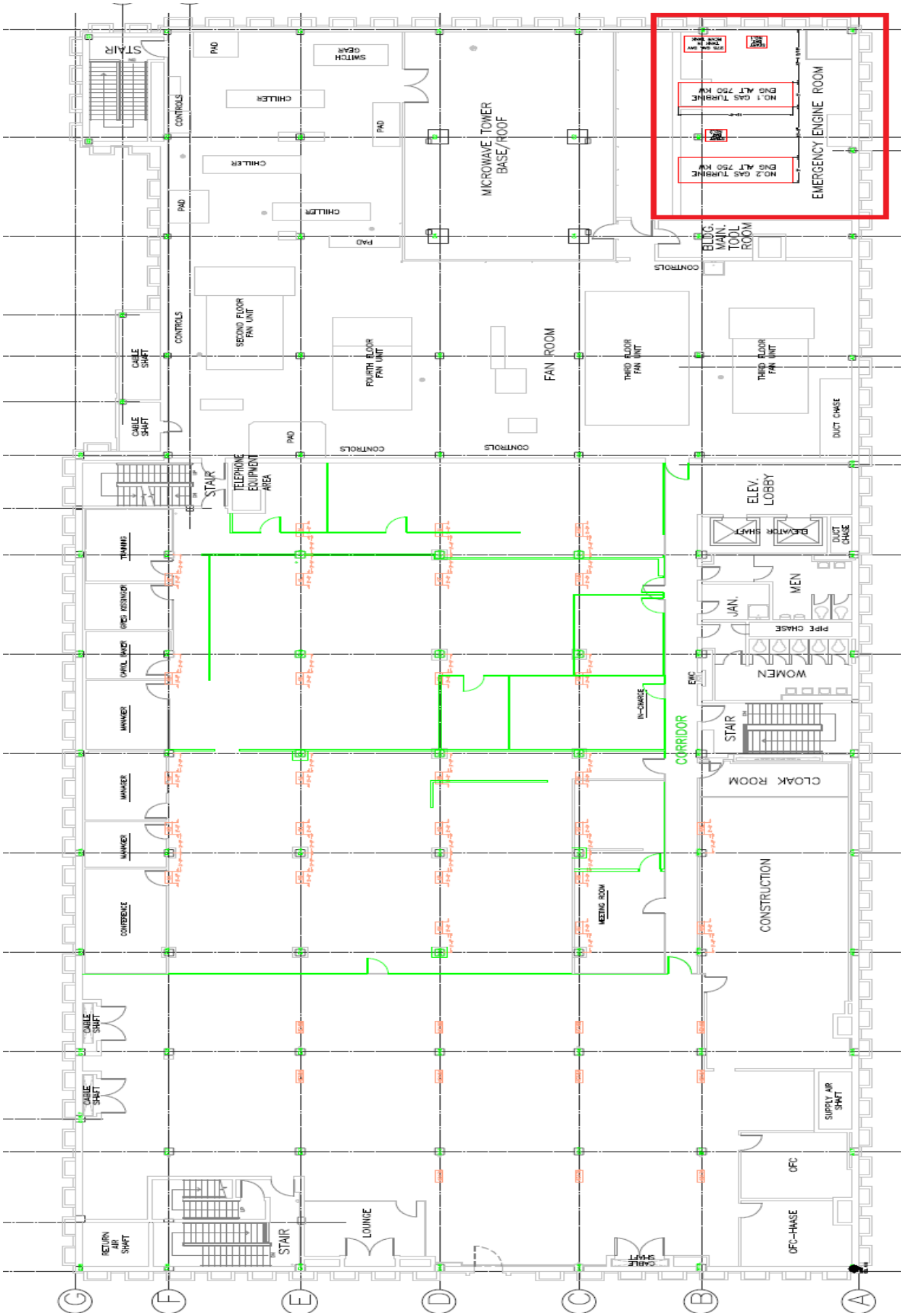
General:
AT&T PK0106 operates 5 days per week, 8:00 a.m. – 4:30 p.m.

Special Considerations:
None

Control Point:
The facility has multiple access points on Dewey Street, as well as a service entrance located off of the Grand Avenue Parking Lot.

Facility Map Identifying Sulfuric Acid Storage:

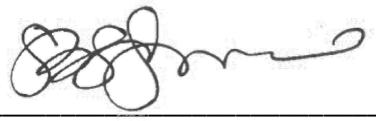
4th Floor Engine Room



NEW [X] UPDATE [ ] FINAL UPDATE [ ]

Facility Signatures:

I have reviewed the attached plan and to the best of my knowledge, all facility information is true, accurate, and complete. The plan is consistent with facility emergency plans and procedures.

Jeremy McGrue  1/10/2024

Facility Coordinator Date

County Signatures:

I have reviewed the attached plan and to the best of my knowledge, all information is true, accurate, and complete.

_____ _____

County Local Emergency Planning Committee Chair Date

_____ _____

County Emergency Management Director Date

ATTACHMENT C, APPENDIX FOR FACILITY ID #933
AT&T PK0116
310 N DEWEY ST
EAU CLAIRE, WI 54703

Facility Coordinator:
Darren Merhalski
Property Manager
Work #: 262-225-6965
24 Hr. #: 920-939-1175
Email: dm488q@att.com

1st Alternate Coordinator:
Jeremy McGrue
National EPCRA Manager
Work #: 469-295-2319
24 Hour #: 800-566-9357
Email: jeremy.mcgrue@att.com

Extremely Hazardous Substance Present:

CAS. NO	CHEMICAL	MAX. AMT.	VUL.ZONE
7664-93-9	*Sulfuric Acid	4,468 lbs.	< 0.1 mi.

*EPA Extremely Hazardous Substance

Assumptions: This AT&T Facility provides backup power during power failures. The facility will operate for five to eight hours on battery without a generator. With generator power the facility can maintain service for an extended time as long as fuel is available. Sulfuric acid is present at 7,968 lbs. in a concentration of 30% or less, battery electrolyte solution. While the facility has 7,968 lbs. of sulfuric acid on site, the amount in the largest container is 45 lbs. The credible worst-case scenario involves a release of 45 lbs. of sulfuric acid in battery electrolyte solution at a concentration of 30% or less. The result is a vulnerability zone that would stay within the perimeters of the facility and would not affect any special facilities off-site. The maximum number of employees affected is 1.

Scenario: The credible worst-case scenario for release would involve the largest battery/group of interconnected batteries that is damaged during operation or delivery releasing 45 lbs. of sulfuric acid in a concentration of 30% or less in a battery electrolyte solution. According to calculations derived from using Cameo for Hazard Analysis, the release would pose a hazard of <0.1 mile or 528 feet.

Primary Emergency Responders:

City of Eau Claire Police Department	715-839-4972
Eau Claire Fire Department	715-839-5013
Eau Claire Fire Department EMS	715-839-5013
Eau Claire County Emergency Management	715-829-8499

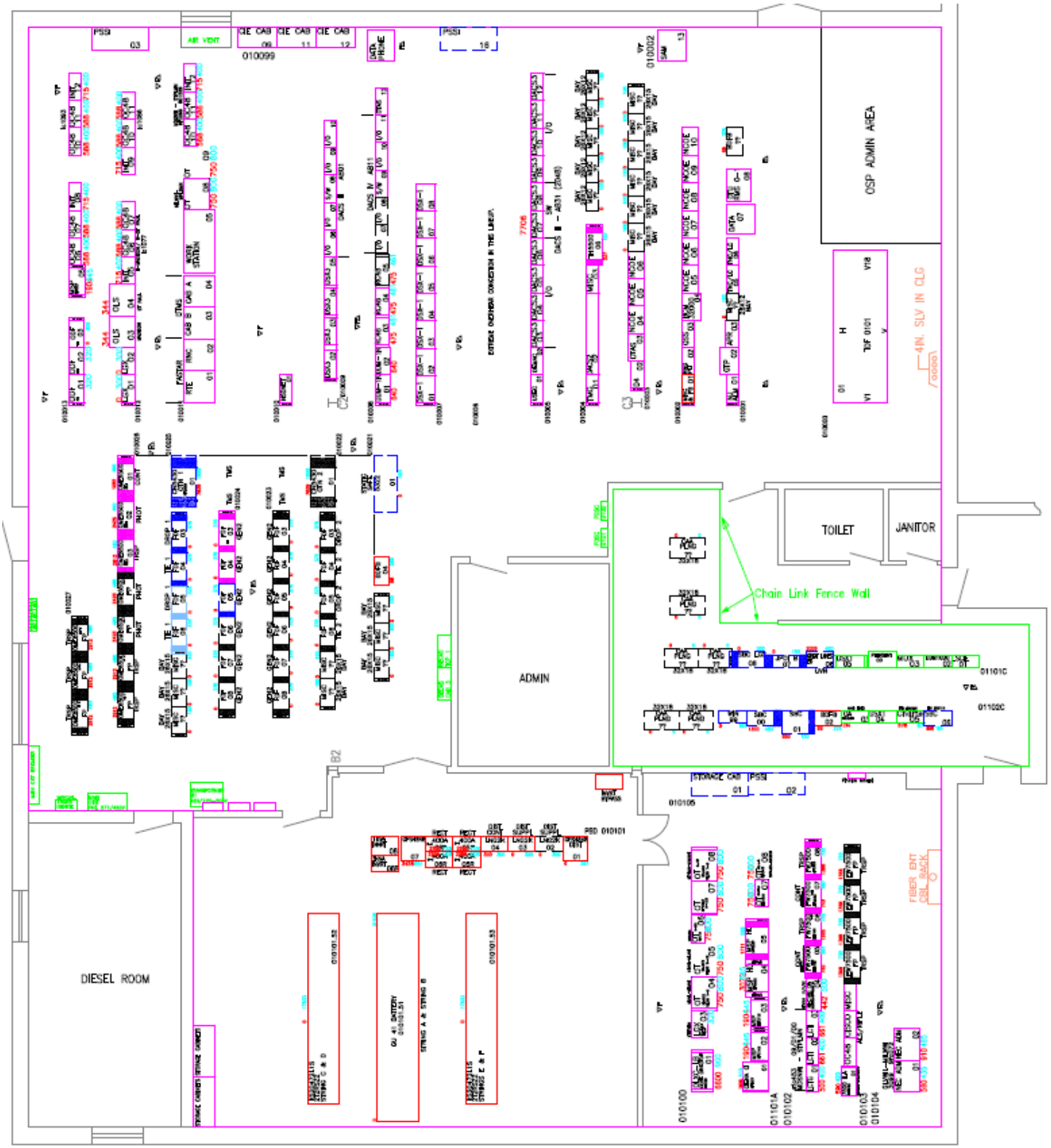
Special Resources Available at / from facility:
- Monitored by two off-site alarm systems
- Spill kit

Special Resources Needed for Response:
The facility will not respond to hazardous materials emergency but will evacuate the facility and await the response to their 911 call.

General:
AT&T PK0116 operates 5 days per week, 8:00 a.m. – 4:30 p.m.

Special Considerations:
None

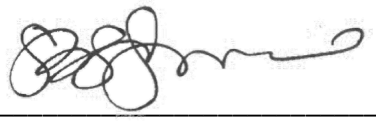
Facility Map Identifying Sulfuric Acid Storage:



NEW [X] UPDATE [ ] FINAL UPDATE [ ]

Facility Signatures:

I have reviewed the attached plan and to the best of my knowledge, all facility information is true, accurate, and complete. The plan is consistent with facility emergency plans and procedures.

Jeremy McGrue  1/10/2024

Facility Coordinator Date

County Signatures:

I have reviewed the attached plan and to the best of my knowledge, all information is true, accurate, and complete.

_____ _____

County Local Emergency Planning Committee Chair Date

_____ _____

County Emergency Management Director Date

ATTACHMENT C, APPENDIX FOR FACILITY ID #199193
AT&T SOUTH BARSTOW (P10602)
404 SOUTH BARSTOW
EAU CLAIRE WI, WI 54701

Facility Coordinator:
Darren Merhalski
Property Manager
Work #: 262-225-6965
24 Hr. #: 920-939-1175
Email: dm488q@att.com

1st Alternate Coordinator:
Jermey McGrue
National EPCRA Manager
Work #: 469-295-2319
24 Hour #: 800-566-9357
Email: jeremy.mcgrue@att.com

Extremely Hazardous Substance Present:

CAS. NO	CHEMICAL	MAX. AMT.	VUL. ZONE
None			

NEW [ ] UPDATE [ ] FINAL UPDATE [X]

Facility Signatures:

I have reviewed the attached plan and to the best of my knowledge, all facility information is true, accurate, and complete. The plan is consistent with facility emergency plans and procedures.

Jeremy McGrue  1/9/2024

Facility Coordinator Date

County Signatures:

I have reviewed the attached plan and to the best of my knowledge, all information is true, accurate, and complete.

_____ _____
County Local Emergency Planning Committee Chair Date

_____ _____
County Emergency Management Director Date

ATTACHMENT C, APPENDIX FOR FACILITY ID #202533
CORE-MARK EAU CLAIRE
2516 PROSPECT DR
EAU CLAIRE, WI 54703

Facility Coordinator:
Anthony Smith
Director of Operations
Work #: 715-874-2731
24 Hr. #: 502-202-1977
Email: anthony.smith@pfgc.com

1st Alternate Coordinator:
Kerry Comstock
Safety Supervisor
Work #: 715-874-2711
24 Hour #: 715-559-8550
Email: kerry.comstock@pfgc.com

Extremely Hazardous Substance Present:

CAS. NO	CHEMICAL	MAX. AMT.	VUL.ZONE
7664-93-9	*Sulfuric Acid	54,320 lbs.	< 0.1 mi.

*EPA Extremely Hazardous Substance

Assumptions: Core-Mark Eau Claire is a merchant wholesale facility that utilizes battery operated forklifts containing EHS sulfuric acid. Sulfuric acid is present at 54,320 lbs. in a concentration of 11% or less, battery electrolyte solution. The credible worst-case scenario involves a release of 525 lbs. of sulfuric acid in battery electrolyte solution at a concentration of 11% or less. The result is a vulnerability zone that would stay within the perimeters of the facility and would not affect any special facilities off-site. The maximum number of employees affected is 50.

Scenario: The credible worst-case scenario for release would involve the largest battery that is damaged during operation or delivery releasing 525 lbs. of sulfuric acid in a concentration of 11% or less in a battery electrolyte solution. According to calculations derived from using Cameo for Hazard Analysis, the release would pose a hazard of <0.1 mile or 528 feet.

Primary Emergency Responders:

City of Eau Claire Police Department	715-839-4972
Eau Claire Fire Department	715-839-5013
Eau Claire Fire Department EMS	715-839-5013
Eau Claire County Emergency Management	715-829-8499

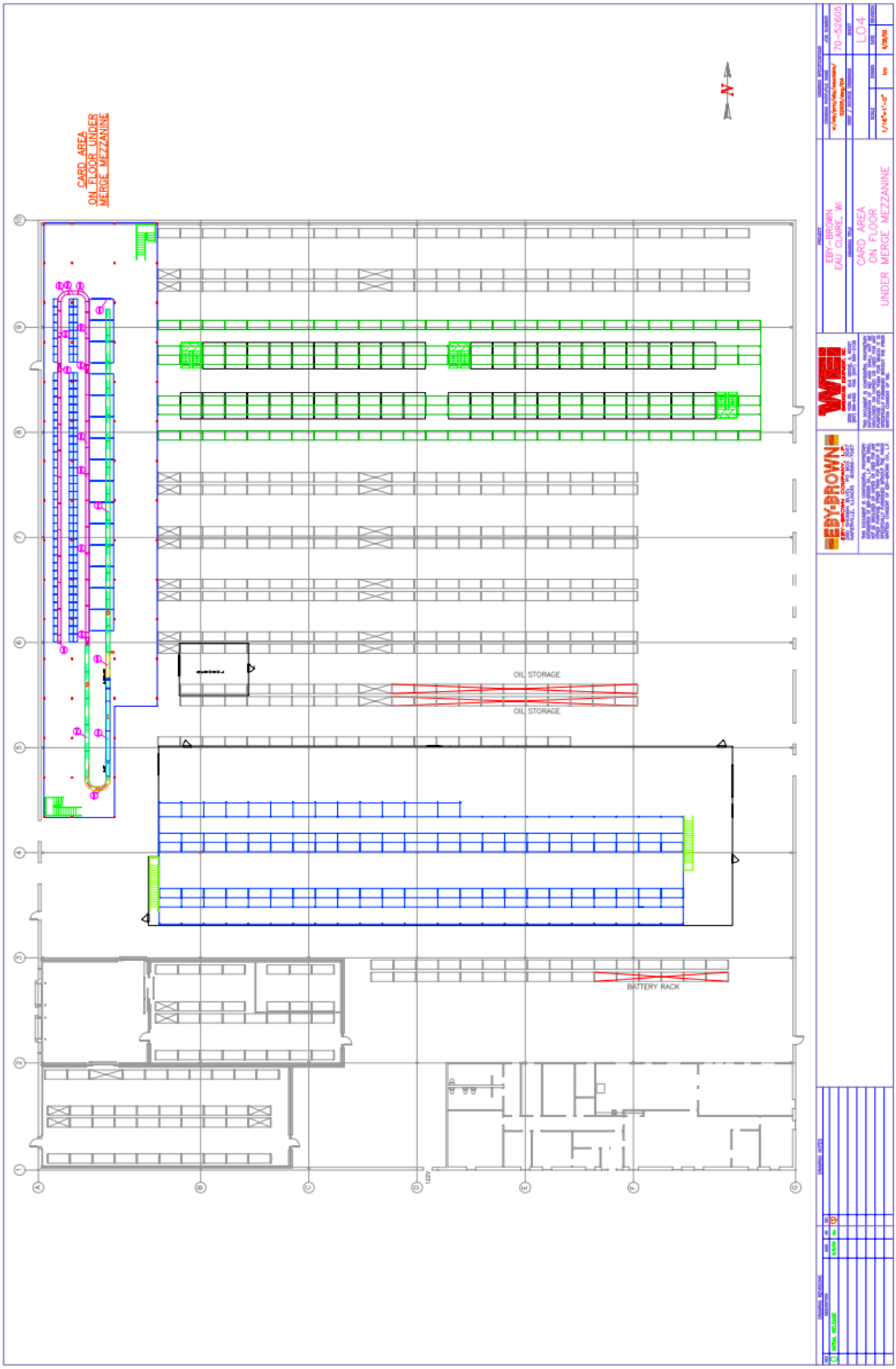
Special Resources Available at / from facility:
- The facility maintains a facility on-site emergency plan
- Absorbents and Neutralizers

Special Resources Needed for Response:
The facility will not respond to hazardous materials emergency but will evacuate the facility and await the response to their 911 call.

General:
Core-Mark operates 24 hours/7 days week.

Special Considerations:
None

Facility Map Identifying Sulfuric Acid Storage:



NEW [X] UPDATE [ ] FINAL UPDATE [ ]

Facility Signatures:

I have reviewed the attached plan and to the best of my knowledge, all facility information is true, accurate, and complete. The plan is consistent with facility emergency plans and procedures.

Facility Coordinator _____ Date 1-11-24

County Signatures:

I have reviewed the attached plan and to the best of my knowledge, all information is true, accurate, and complete.

County Local Emergency Planning Committee Chair _____ Date _____

County Emergency Management Director _____ Date _____

ATTACHMENT C, APPENDIX FOR FACILITY ID 203435
DAKOTA SUPPLY GROUP
3413 TRUAX COURT
EAU CLAIRE, WI 54703

Facility Coordinator:
Michael Place
Safety Manager
Work #: 701-237-9440 ext. 1602
24 Hr. #: 701-526-6440
Email: mike.place@dsgsuppply.com

1st Alternate Coordinator:
Karl Wrobel
General Manager
Work #: 608-781-2000 ext. 8871
24 Hour #: 608-397-7528
Email: karl.krobel@dsgsupply.com

Extremely Hazardous Substance Present:

CAS. NO	CHEMICAL	MAX. AMT.	VUL.ZONE
7664-93-9	*Sulfuric Acid	4880 lbs.	< 0.1 mi.

*EPA Extremely Hazardous Substance

Assumptions: Dakota Supply Group is a distribution facility that utilizes battery operated material handling equipment and stores batteries containing EHS sulfuric acid. Sulfuric acid is present at 4880 lbs. in a concentration of 44% (average 25%) or less, battery electrolyte solution. The credible worst-case scenario involves a release of 2440 lbs. of sulfuric acid in battery electrolyte solution at a concentration of 44% or less. The result is a vulnerability zone that would stay within the perimeters of the facility and would not affect any special facilities off-site. The maximum number of employees affected is 10.

Scenario: The credible worst-case scenario for release would involve the largest battery/group of interconnected batteries that is damaged during operation or delivery releasing 2440 lbs. of sulfuric acid in a concentration of 44% or less in a battery electrolyte solution. According to calculations derived from using Cameo for Hazard Analysis, the release would pose a hazard of <0.1 mile or 528 feet.

Primary Emergency Responders:

Eau Claire Police Department	715-839-4972
Eau Claire Fire Department	715-839-5013
Eau Claire Fire Department EMS	715-839-5013
Eau Claire County Emergency Management	715-829-8499

Special Resources Available at / from facility:
- The facility maintains a facility on-site emergency plan
- Spill Kit & Sewer Cover
- Splash Apron, Face Shields, Gloves and Goggles
- Absorbents and Neutralizers

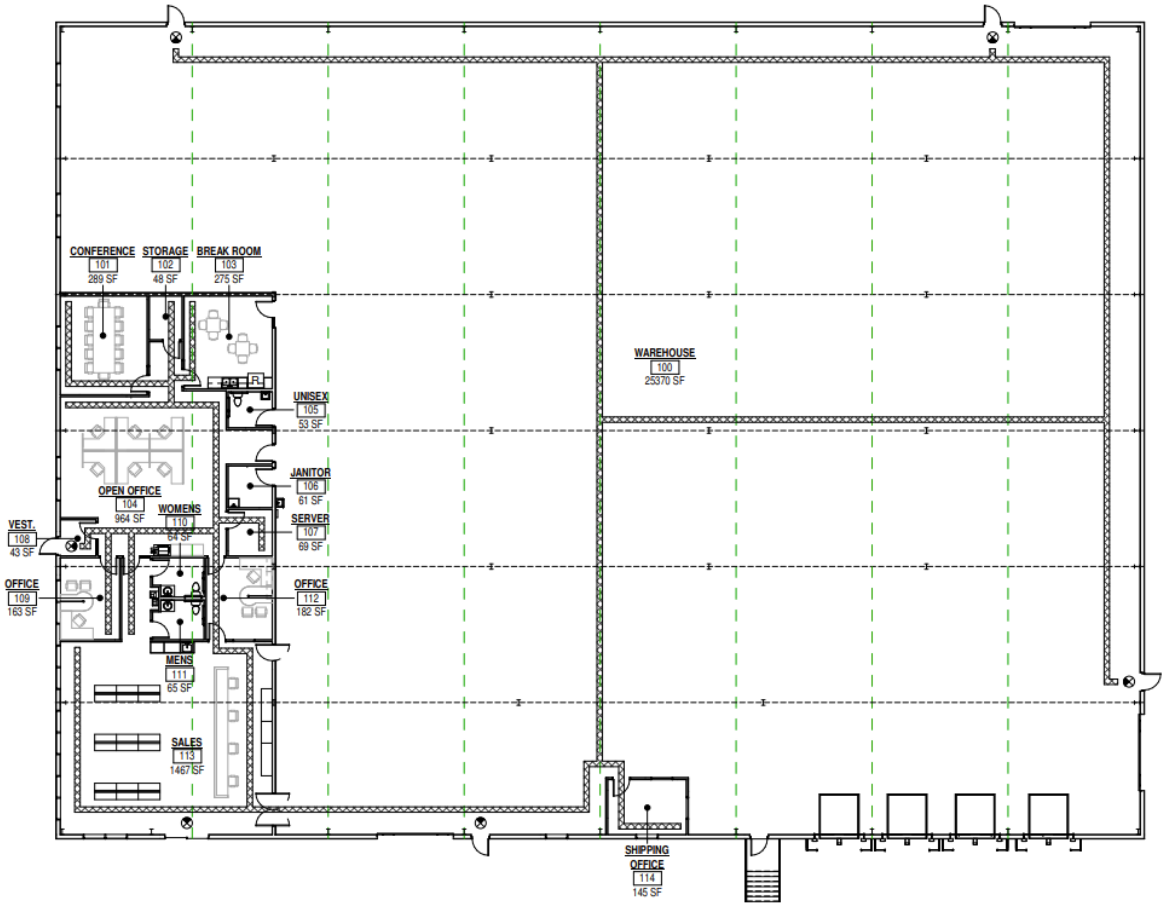
Special Resources Needed for Response:
The facility will not respond to hazardous materials emergency but will evacuate the facility and await the response to their 911 call. The facility's hazardous materials contractor is WRR Environmental Services (5200 Ryder Road, Eau Claire WI 54701, 715-834-9624).

General:
Dakota Supply Group operates 5 days per week (Monday-Friday) 6:30am-5:00pm.

Special Considerations:
None

Facility Map Identifying Sulfuric Acid Storage:

Charging stations in NW corner of building (west of the door below this caption



N

2 CODE COMPLIANCE PLAN

1/16" = 1'-0"

Electric machines, when not being charged, are parked in the shipping area to the north/west of the shipping office (located directed above this caption)

NEW [X] UPDATE [ ] FINAL UPDATE [ ]

Facility Signatures:

I have reviewed the attached plan and to the best of my knowledge, all facility information is true, accurate, and complete. The plan is consistent with facility emergency plans and procedures.

√ Michael Place (e-sign acknowledgment)	4/3/2024
Facility Coordinator	Date

County Signatures:

I have reviewed the attached plan and to the best of my knowledge, all information is true, accurate, and complete.

County Local Emergency Planning Committee Chair	Date
County Emergency Management Director	Date

ATTACHMENT C, APPENDIX FOR FACILITY ID #196827
GREAT LAKES COCA-COLA EAU CLAIRE DISTRIBUTION
202 TRUAX BLVD
EAU CLAIRE, WI 54703

Facility Coordinator:
Joshua Meyer
General Manager
Work #: 651-428-6586
24 Hr. #: 651-428-6586
Email: joshua.meyer@glccd.com

1st Alternate Coordinator:
Patrick Lien
Manager
Work #: 715-210-2976
24 Hour #: 715-210-2976
Email: patrick.lien@glccd.com

Extremely Hazardous Substance Present:

CAS. NO	CHEMICAL	MAX. AMT.	VUL.ZONE
7664-93-9	*Sulfuric Acid	2,896 lbs.	< 0.1 mi.

*EPA Extremely Hazardous Substance

Assumptions: Great Lakes Coca-Cola is a soft drink distribution center that stores product of various sizes for distribution to points of sale within the region. Sulfuric Acid is stored in lead batteries used by forklifts inside the warehouse. Sulfuric acid is present at 2,896 lbs. in a concentration of 30% or less, battery electrolyte solution. The credible worst-case scenario involves a release of 2,823 lbs. of sulfuric acid in battery electrolyte solution at a concentration of 30% or less. The result is a vulnerability zone that would stay within the perimeters of the facility and would not affect any special facilities off-site. The maximum number of employees affected is 38.

Scenario: The credible worst-case scenario for release would involve the largest battery/group of interconnected batteries that is damaged during operation or delivery releasing 2,823 lbs. of sulfuric acid in a concentration of 30% or less in a battery electrolyte solution. According to calculations derived from using Cameo for Hazard Analysis, the release would pose a hazard of <0.1 mile or 528 feet.

Primary Emergency Responders:

City of Eau Claire Police Department	715-839-4972
Eau Claire Fire Department	715-839-5013
Eau Claire Fire Department EMS	715-839-5013
Eau Claire County Emergency Management	715-829-8499

Special Resources Available at / from facility:
- The facility maintains a facility on-site emergency plan
- Spill Kit
- Absorbents and Neutralizers

Special Resources Needed for Response:
The facility will not respond to hazardous materials emergency but will evacuate the facility and await the response to their 911 call.

General:
Great Lakes Coca-Cola operates on a single shift system, 0800-1700 Monday through Friday.

Special Considerations:
None

Facility Map Identifying Sulfuric Acid Storage:

NEW [X] UPDATE [ ] FINAL UPDATE [ ]

Facility Signatures:

I have reviewed the attached plan and to the best of my knowledge, all facility information is true, accurate, and complete. The plan is consistent with facility emergency plans and procedures.

Facility Coordinator — Date: 2/26/24

County Signatures:

I have reviewed the attached plan and to the best of my knowledge, all information is true, accurate, and complete.

County Local Emergency Planning Committee Chair — Date

County Emergency Management Director — Date

ATTACHMENT C, APPENDIX FOR FACILITY ID #137176
INDIANHEAD FOODSERVICE DISTRIBUTOR
313 HASTINGS PLACE
EAU CLAIRE, WISCONSIN 54702-1506

Facility Coordinator:
Jesse Gillett
Board Secretary
Work #: 715-930-7977
24 Hr. #: 715-271-0717
Email: jgillett@callifd.com

1st Alternate Coordinator:
Dan Walker
Operations Manager
Work #: 715-834-6512 ext. 127
24 Hour #: 715-225-8864
Email: dwalker@callifd.com

Extremely Hazardous Substance Present:

CAS. NO	CHEMICAL	MAX. AMT.	VUL.ZONE
7664-93-9	*Sulfuric Acid	9,410.19 lbs.	< 0.1 mi.

*EPA Extremely Hazardous Substance

Assumptions: Indianhead Foodservice Distributor is a food warehousing operation that supplies food products for the away-from-home eating industry. Sulfuric acid is used in batteries that power forklifts and other machinery used to move the food products inside the building; forklifts move throughout the building. The sulfuric acid from all these batteries totals 9,410.19 pounds. However, the batteries vary in capacity from 36V batteries containing 262 pounds of sulfuric acid, to 6V batteries containing 39 pounds of sulfuric acid; all batteries contain a 30% solution. The credible worst-case scenario involves a release of 262 lbs. of sulfuric acid in battery electrolyte solution at a concentration of 30% or less. The result is a vulnerability zone that would stay within the perimeters of the facility and would not affect any special facilities off-site. The maximum number of employees affected is 170.

Scenario: The credible worst-case scenario for release would involve the largest battery/group of interconnected batteries that is damaged during operation or delivery releasing 262 lbs. of sulfuric acid in a concentration of 30% or less in a battery electrolyte solution. According to calculations derived from using Cameo for Hazard Analysis, the release would pose a hazard of <0.1 mile or 528 feet.

Primary Emergency Responders:

City of Eau Claire Police Department	715-839-4972
Eau Claire Fire Department	715-839-5013
Eau Claire Fire Department EMS	715-839-5013
Eau Claire County Emergency Management	715-829-8499

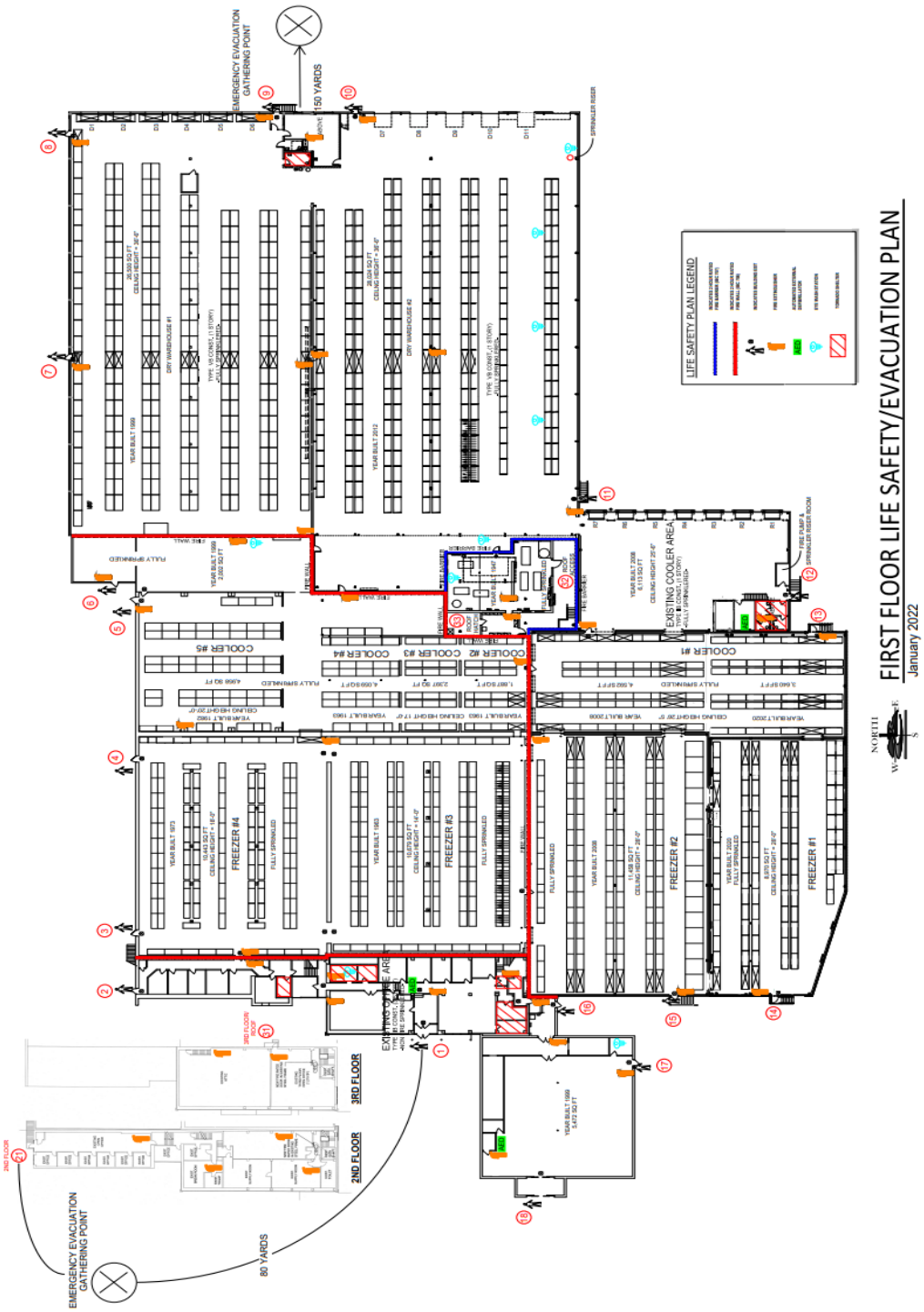
Special Resources Available at / from facility:
- The facility maintains a facility on-site emergency plan
- Splash Apron, Face Shields, Gloves and Goggles

Special Resources Needed for Response:
The facility will not respond to hazardous materials emergency but will evacuate the facility and await the response to their 911 call.

General:
The facility currently operates on a 24/7 schedule, with the exception of a time period from 8:00 p.m. on Friday to 4:00 a.m. Sunday.

Special Considerations:
None

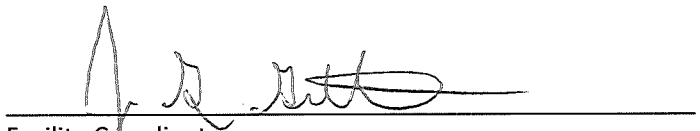
Facility Map Identifying Sulfuric Acid Storage:



NEW [X] UPDATE [ ] FINAL UPDATE [ ]

Facility Signatures:

I have reviewed the attached plan and to the best of my knowledge, all facility information is true, accurate, and complete. The plan is consistent with facility emergency plans and procedures.



Facility Coordinator

2/21/2024

Date

County Signatures:

I have reviewed the attached plan and to the best of my knowledge, all information is true, accurate, and complete.

County Local Emergency Planning Committee Chair

Date

County Emergency Management Director

Date

ATTACHMENT C, APPENDIX FOR FACILITY ID #143371
MENARD, INC – EAU CLAIRE
5101 MENARD DRIVE
EAU CLAIRE, WI 54703

Facility Coordinator:
Rob Ebben
Environmental Compliance Coordinator
Work #: 715-876-2300
24 Hr. #: 715-214-6112
Email: rebben@menard-inc.com

1st Alternate Coordinator:
Chris Witkowski
Facilities Manager
Work #: 715-876-8400
24 Hour #: 715-828-0145
Email: cwitkiwowski@menard-inc.com

Extremely Hazardous Substance Present:

CAS. NO	CHEMICAL	MAX. AMT.	VUL.ZONE
7664-93-9	*Sulfuric Acid	3,744 lbs.	< 0.1 mi.

*EPA Extremely Hazardous Substance

Assumptions: Menard, Inc. is a home improvement retail facility that utilizes battery operated material handling equipment containing EHS sulfuric acid. Sulfuric acid is present at 3,744 lbs. in a concentration of 20% or less, battery electrolyte solution. The credible worst-case scenario involves a release of 321 lbs. of sulfuric acid in battery electrolyte solution at a concentration of 20% or less. The result is a vulnerability zone that would stay within the perimeters of the facility and would not affect any special facilities off-site. The maximum number of employees affected is 975.

Scenario: The credible worst-case scenario for release would involve the largest battery/group of interconnected batteries that is damaged during operation or delivery releasing 321 lbs. of sulfuric acid in a concentration of 20% or less in a battery electrolyte solution. According to calculations derived from using Cameo for Hazard Analysis, the release would pose a hazard of <0.1 mile or 528 feet and would stay within the perimeters of the facility and would not affect any special facilities off-site.

Primary Emergency Responders:

Eau Claire County Sheriff's Office	715-839-4701
Township Fire Department	715-834-6868
Eau Claire Fire Department EMS	715-839-5013
Eau Claire County Emergency Management	715-829-8499

Special Resources Available at / from facility:
- The facility maintains a facility on-site emergency plan
- Absorbents and Neutralizers

Special Resources Needed for Response:
Menards has absorbent and neutralizer material on supply and staff are able to use it in the event of a spill. If a large failure of multiple batteries were to occur, they would evacuate the facility and await the response to their 911 call.

General:
In the event of an incident on the Menards complex, staff in guard shacks and at intersections will direct emergency personnel to the scene. The facility is staffed 24/7.

Special Considerations:
None

NEW [X] UPDATE [ ] FINAL UPDATE [ ]

Facility Signatures:

I have reviewed the attached plan and to the best of my knowledge, all facility information is true, accurate, and complete. The plan is consistent with facility emergency plans and procedures.

Facility Coordinator — Date: 11/30/2024

County Signatures:

I have reviewed the attached plan and to the best of my knowledge, all information is true, accurate, and complete.

County Local Emergency Planning Committee Chair — Date

County Emergency Management Director — Date

ATTACHMENT C, APPENDIX FOR FACILITY ID 203447
WSC EAU CLAIRE
4200 WHITE AVE
EAU CLAIRE, WI 54703

Facility Coordinator:
Jeffrey Vaile
Distribution Manager
Work #: 920-371-5912
24 Hr. #: 920-371-5912
Email: Jeffrey.vaile@wausausupply.com

1st Alternate Coordinator:
Kris Zwicky
Safety & Environmental Manager
Work #: 715-297-9227
24 Hour #: 715-297-9227
Email: kris.zwicky@wausausupply.com

Extremely Hazardous Substance Present:

CAS. NO	CHEMICAL	MAX. AMT.	VUL.ZONE
7664-93-9	*Sulfuric Acid	2250 lbs.	< 0.1 mi.

*EPA Extremely Hazardous Substance

Assumptions: WSC Eau Claire is a warehouse facility that utilizes battery operated material handling equipment containing EHS sulfuric acid. Sulfuric acid is present at 2250 lbs. in a concentration of 30% or less, battery electrolyte solution. The credible worst-case scenario involves a release of 1444 lbs. of sulfuric acid in battery electrolyte solution at a concentration of 30% or less. The result is a vulnerability zone that would stay within the perimeters of the facility and would not affect any special facilities off-site. The maximum number of employees affected is 20.

Scenario: The credible worst-case scenario for release would involve the largest battery/group of interconnected batteries that is damaged during operation or delivery releasing 1444 lbs. of sulfuric acid in a concentration of 30% or less in a battery electrolyte solution. According to calculations derived from using Cameo for Hazard Analysis, the release would pose a hazard of <0.1 mile or 528 feet.

Primary Emergency Responders:

Eau Claire Police Department	715-839-4972
Eau Claire Fire Department	715-839-5013
Eau Claire Fire Department EMS	715-839-5013
Eau Claire County Emergency Management	715-829-8499

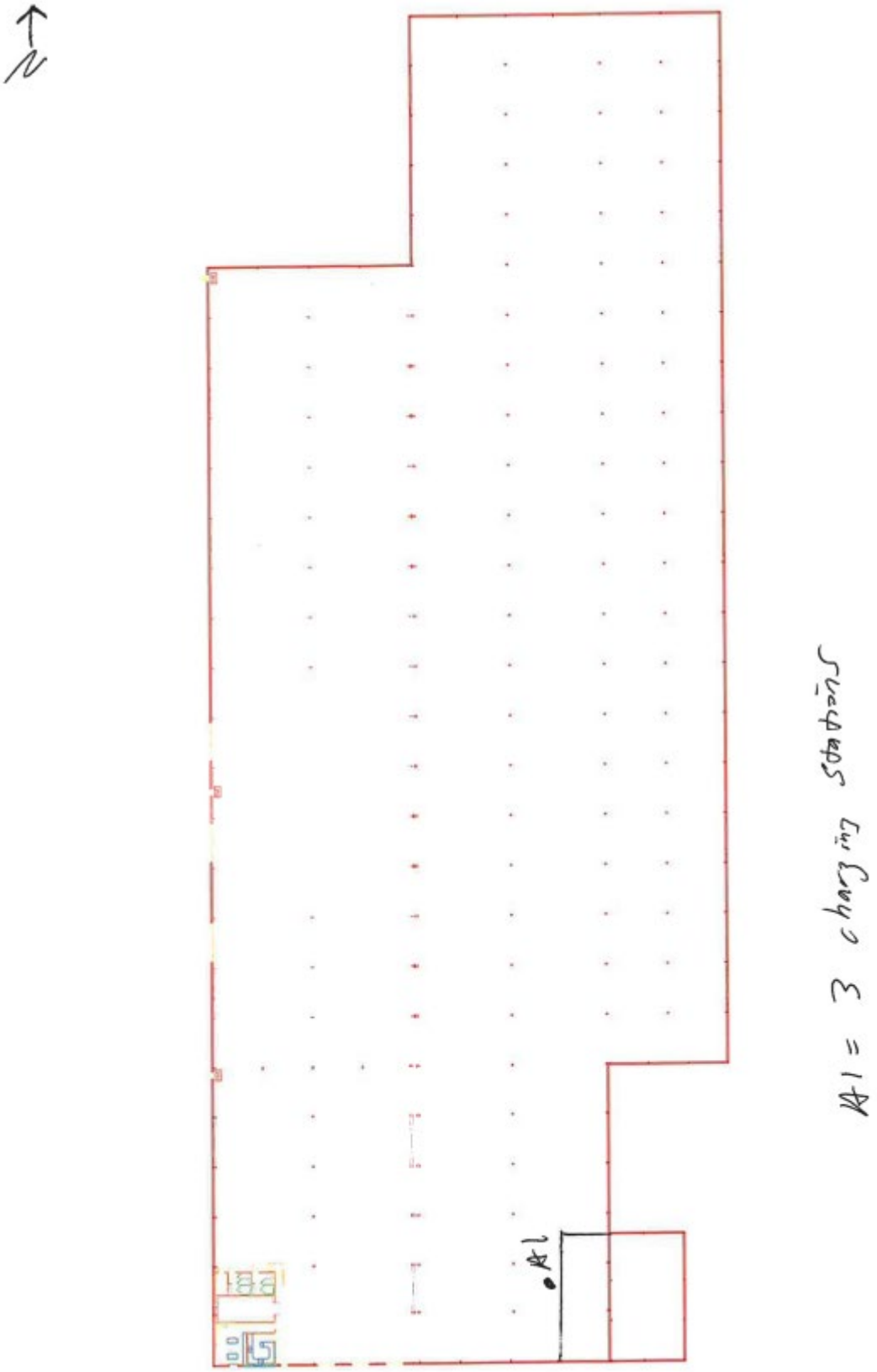
Special Resources Available at / from facility:
- The facility maintains a facility on-site emergency plan
- Splash Apron, Face Shields, Gloves and Goggles
- Absorbents and Neutralizers

Special Resources Needed for Response:
The facility will not respond to hazardous materials emergency but will evacuate the facility and await the response to their 911 call.

General:
WSC Eau Claire operates 5 days per week (Monday-Thursday); 6am-6pm & (Friday); 6am-5pm.

Special Considerations:
None

Facility Map Identifying Sulfuric Acid Storage:



NEW [X] UPDATE [ ] FINAL UPDATE [ ]

Facility Signatures:

I have reviewed the attached plan and to the best of my knowledge, all facility information is true, accurate, and complete. The plan is consistent with facility emergency plans and procedures.

Facility Coordinator — Date: 4-4-24

County Signatures:

I have reviewed the attached plan and to the best of my knowledge, all information is true, accurate, and complete.

County Local Emergency Planning Committee Chair — Date

County Emergency Management Director — Date

ATTACHMENT C, APPENDIX FOR FACILITY ID #99570
XCEL ENERGY – EAU CLAIRE SUBSTATION
3803 WELLS ROAD
EAU CLAIRE, WI 54703

Facility Coordinator:
Jason Hayden
Sr Operations Manager
Work #: 715-737-1466
24 Hr. #: 715-461-0001
Email: jason.d.hayden@xcelenergy.com

1st Alternate Coordinator:
NSP Transmission Control Center
Operator
Work #: 715-737-2610
24 Hour #: 715-7367-2610
Email: witransmissionoper@xcelenergy.com

Extremely Hazardous Substance Present:

CAS. NO	CHEMICAL	MAX. AMT.	VUL.ZONE
7664-93-9	*Sulfuric Acid	6,550 lbs.	< 0.1 mi.

*EPA Extremely Hazardous Substance

Assumptions: Xcel Energy-Eau Claire Substation is an unmanned electrical substation facility that stores batteries containing EHS sulfuric acid. Sulfuric acid is present at 6,550 lbs. in a concentration of 20% or less, battery electrolyte solution. The credible worst-case scenario involves a release of 1,310 lbs. of sulfuric acid in battery electrolyte solution at a concentration of 20% or less. The result is a vulnerability zone that would stay within the perimeters of the facility and would not affect any special facilities off-site. The batteries are kept in a coated steel containment structure with spill pads and a neutralizing agent. The maximum number of employees affected is 0.

Scenario: The credible worst-case scenario for release would involve the largest battery that is damaged during operation or delivery releasing 1,310 lbs. of sulfuric acid in a concentration of 20% or less in a battery electrolyte solution. According to calculations derived from using Cameo for Hazard Analysis, the release would pose a hazard of <0.1 mile or 528 feet.

Primary Emergency Responders:

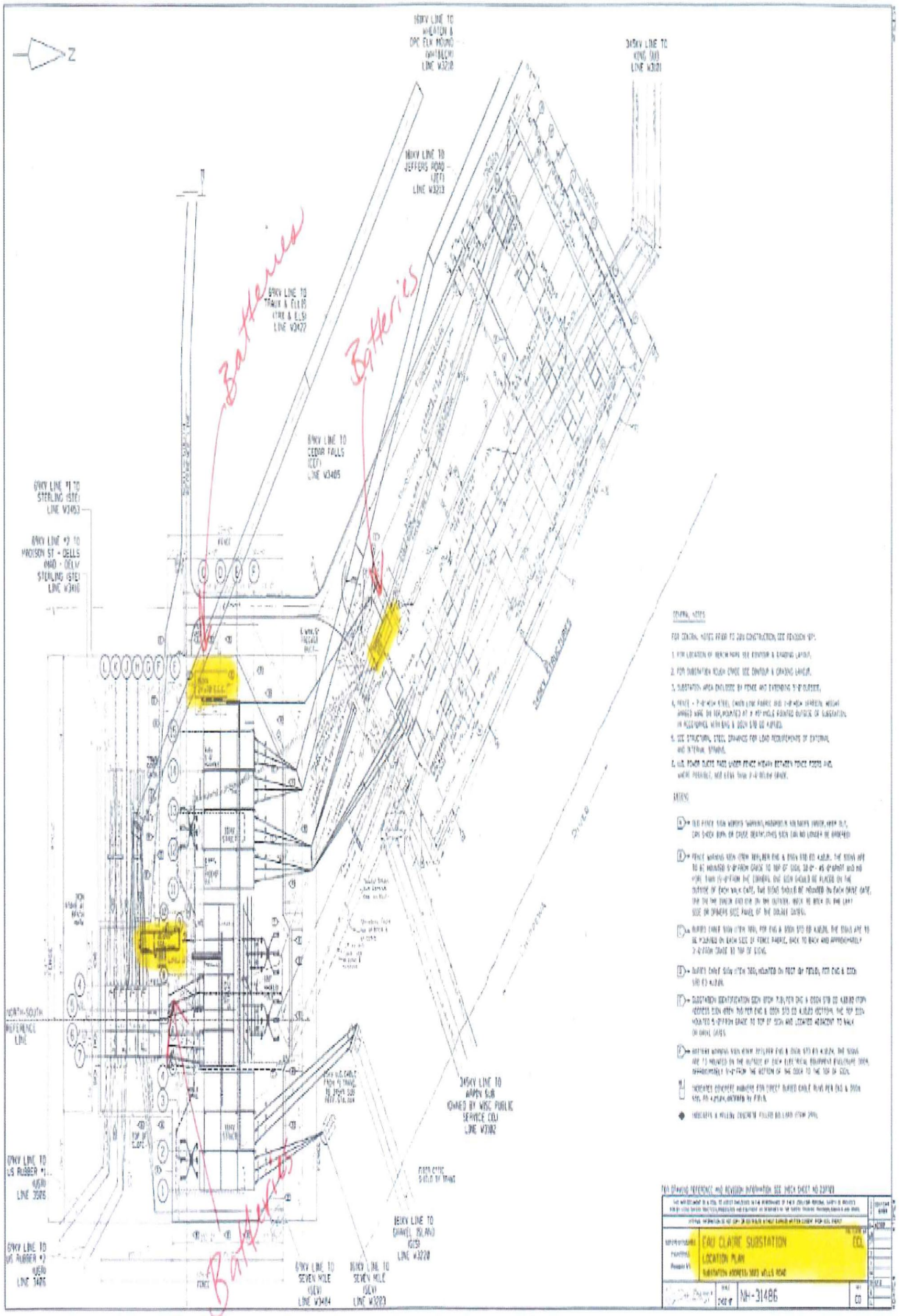
City of Eau Claire Police Department	715-839-4972
Eau Claire Fire Department	715-839-5013
Eau Claire Fire Department EMS	715-839-5013
Eau Claire County Emergency Management	715-829-8499

Special Resources Available at / from facility:
- Splash Apron, Face Shields, Gloves and Goggles
- Absorbents and Neutralizers

Special Resources Needed for Response:
A loss of power to the charger will result in an alarm being sent to Xcel Energy's dispatch center. A troubleman would be dispatched to the substation to investigate.

Special Considerations:
None

Facility Map Identifying Sulfuric Acid Storage:



NEW [X] UPDATE [ ] FINAL UPDATE [ ]

Facility Signatures:

I have reviewed the attached plan and to the best of my knowledge, all facility information is true, accurate, and complete. The plan is consistent with facility emergency plans and procedures.

Jason Hayden Digitally signed by Jason Hayden
Date: 2024.02.27 09:13:58 -06'00'

Facility Coordinator Date

County Signatures:

I have reviewed the attached plan and to the best of my knowledge, all information is true, accurate, and complete.

County Local Emergency Planning Committee Chair Date

County Emergency Management Director Date

Central Storage & Warehouse Co.

Facility Off-Site

Emergency Response Plan

Facility #198620
Central Storage & Warehouse Co.
2650 Fortune Drive
Eau Claire, Wisconsin 54703

Eau Claire County
Office of Emergency Management
721 Oxford Avenue, Suite 3344
Eau Claire, Wisconsin 54703

TABLE OF CONTENTS

SECTION 1: FACILITY INFORMATION

A. FACILITY LOCATION

Central Storage & Warehouse Co.
2650 Fortune Drive
Eau Claire, Wisconsin 54703

B. FACILITY ID

198620

C. EMERGENCY CONTACTS

Primary:
Ryan Steele
Phone: 608-221-7600
24 Hour: 608-977-1592
rsteele@csw-wi.com

Secondary:
Deb Kressin
Phone: 715-874-2951
24 Hour: 715-559-6514
debkre@csw-wi.com

D. ACCESS TO FACILITY

There are two access points on Fortune Drive. Fortune Drive is accessible from Venture Drive and North Clairemont Avenue.

E. CHEMICALS ON SITE: EXTREMELY HAZARDOUS SUBSTANCES (EHS)

Ammonia (Anhydrous) Chemical ID: 395173 CAS: 7664417 **ERG: Guide 125**	**Inventory:** Max Daily Amount (lbs): 7400 Ave. Daily Amount (lbs): 7400 Number of days on site: 365	**Storage:** Container: Above ground tank Location: Receiver and accumulator located in Engine room, Westernmost portion of building
Sulfuric Acid Chemical ID: 395174 CAS: 7664939 **ERG: Guide 137**	**Inventory:** Max Daily Amount (lbs): 1730 Ave. Daily Amount (lbs): 1730 Number of days on site: 365	**Storage:** Container: Batteries Location: Forklift batteries in forklifts and in battery charging area

F. HAZARDOUS SUBSTANCES

Lead Chemical ID: 395172 CAS: 7439921 **ERG: Guide 151**	**Inventory:** Max Daily Amount (lbs): 13985 Ave. Daily Amount (lbs): 13985 Number of days on site: 365	**Storage:** Container: Batteries Location: Charging room and forklifts

SECTION II: EMERGENCY RESPONSE

A. PRIMARY RESPONSE AGENCIES

- City of Eau Claire Police Department 715-839-4972
- Eau Claire Fire Department 715-839-5013
- Eau Claire Fire Department EMS 715-839-5013
- Eau Claire County Emergency Management 715-829-8499

B. HAZARDOUS MATERIALS RESPONSE TEAM

Eau Claire County has a Level B Hazardous Materials Response Team. For Level B response, the local Fire Chief notifies the Level B team of a response needed through the Eau Claire County Emergency Communications Center. For Level A responses by the Level A Regional Hazardous Materials Response Team, requests shall be made through the WEM Duty officer by the County Emergency Management Coordinator.

C. SUPPORT AND RESOURCES AVAILABLE FROM FACILITY

There are detectors located in the Mechanical Room, fire alarm and ventilation systems, and alarm monitoring provided by True Lock.

SECTION III: GENERAL INFORMATION AND ASSUMPTIONS

The vulnerability zones set forth in the Plan are based on the EPA Technical Guidance for Hazards Analysis. The zones are based on a credible worst-case scenario and identify the potential area for impact should an air-borne release of a single EHS chemical occur.

The vulnerability zones are NOT intended to be used as a guide for population protection in fire-related incidents. Fire incidents were considered in the development of this plan and the plan provides basic information about the facility for first responders to employ. However, in an actual fire situation at this facility, the Incident commander is strongly recommended to reference the fire department own individual agency pre-emergency plans and standard operating procedures as well as the County's Emergency Operations Plan (EOP) – Emergency Support Function (ESF) 4: Firefighting, as they may relate to this facility when making decisions at an incident involving fire.

Further, fire departments that would respond to an incident at this facility are strongly encouraged to meet with facility representatives to determine ways to minimize an event at the facility and to determine what additional information and factors should be taken into consideration in the event of a fire, should one occur.

The field incident commander shall determine the actual response to an incident and the affected area may vary from the planning vulnerability zone identified in this Plan. Depending on wind speed and direction, the amount of material released and other pertinent factors, the ACTUAL vulnerability zone may be smaller, and in some instances larger, than the credible worst-case vulnerability zone identified herein.

The vulnerability zones determined in the Plan are for general PLANNING PURPOSES.

SECTION IV: HAZARD ANALYSIS

Central Storage & Warehouse provides a cold storage environment for storage of food products. To the east and north are agricultural fields; to the west is undeveloped land. Other industrial facilities are located to the south. The parcel is located near the border of Eau Claire and Chippewa counties. An average of ten (10) employees are on site at all times. The size of the building is 66,000 square feet. EHS utilized/stored at the facility includes Anhydrous Ammonia and Sulfuric Acid.

Sulfuric Acid

Sulfuric acid is used in batteries that power forklifts and other machinery used to move the food products inside the building; forklifts move throughout the building. The total quantity of sulfuric acid electrolyte is 6,750 lbs. The portion of the solution that is sulfuric acid can range up to 1,730 lbs.

Vulnerability Zones were determined using the CAMEO program as the result of a release of sulfuric acid from the largest battery or group of batteries within a 10-minute time period. Even in a worst-case scenario, according to calculations derived from using CAMEO for Hazard Analysis, a release of sulfuric acid in a 30% or less concentration would pose a hazard of less than 0.1 mile or 528 feet and impact employees on site.

Anhydrous Ammonia

Anhydrous Ammonia is used by Central Storage & Warehouse in the cooling system which conditions air for cold storage. Piping for the Anhydrous Ammonia is located above the roof of the building and inside the building. A diffuser is located on the roof top to disperse any system release of Anhydrous Ammonia. A leak of Anhydrous Ammonia in the main containment area would be detected by equipment that is monitored by True Lock Security (24/7).

The largest containment of Anhydrous Ammonia in the cooling system is the receiver (2,464 lbs.). The greatest potential for release would be the failure of "receiver units" which contain the greatest volume of material. Anhydrous Ammonia is delivered to the facility by truck. The maximum shipment is 2,500 pounds. This is the amount of material used in the worst-case scenario.

Based on the total amount of anhydrous ammonia on site, the evacuation area is estimated to be greater than 6.3 miles using the scenario criteria listed below. The impact area would encompass the cities of Chippewa Falls, Lake Hallie, and Eau Claire and affect approximately 72,103 people (30,235 housing units) according to the CAMEO modeling tool. According to FEMA's Resilience Analysis and Planning Tool as many as 4,114 households in this area do not have a vehicle and 10,863 households are without a smartphone.

The worst-case scenario criteria are:

- Neutral Air Stability (Class F)
- Night Time
- Open Country
- 3.35 mph wind
- 1/10 IDLH (Immediately Dangerous to Life and Health) concentration
- Rapid release of maximum quantity of chemical in a single vessel (10 min.)

Using the re-evaluation criteria listed below, the evacuation area for a release of 2,500 pounds of anhydrous ammonia is 0.7 miles. The impact area would affect approximately 13 people (5 housing units) according to the CAMEO modeling tool.

The reevaluation scenario criteria are:

- Neutral Air Stability (Class D)
- Open Country
- 11.9 mph wind
- 1/10 IDLH (Immediately Dangerous to Life and Health) concentration
- 10 minute release of maximum quantity of chemical in a single vessel

SECTION V: SPECIAL FACILITIES AFFECTED

There are no special facilities (hospitals, nursing homes, schools, day care centers, correctional facilities, and other high population facilities with limited transportation) within the re-evaluation scenario.

SECTION VI: POPULATION PROTECTION

A. SHELTER-IN-PLACE

The lead time for a hazardous materials incident may be very short. As a result, there may not be time enough for safe evacuation, especially when extremely toxic chemical fumes are involved. An evacuation under these considerations may expose the population to dangerous toxic chemicals and the decision may be made to shelter-in-place. Preferred areas for protective sheltering would be interior hallways, rooms without windows or exterior doors, enclosed stairways and rooms on the side of the building away from where the hazard is approaching. Doors, windows, and other potential air leaks should be sealed up to prevent toxic fumes from entering.

B. EVACUATION

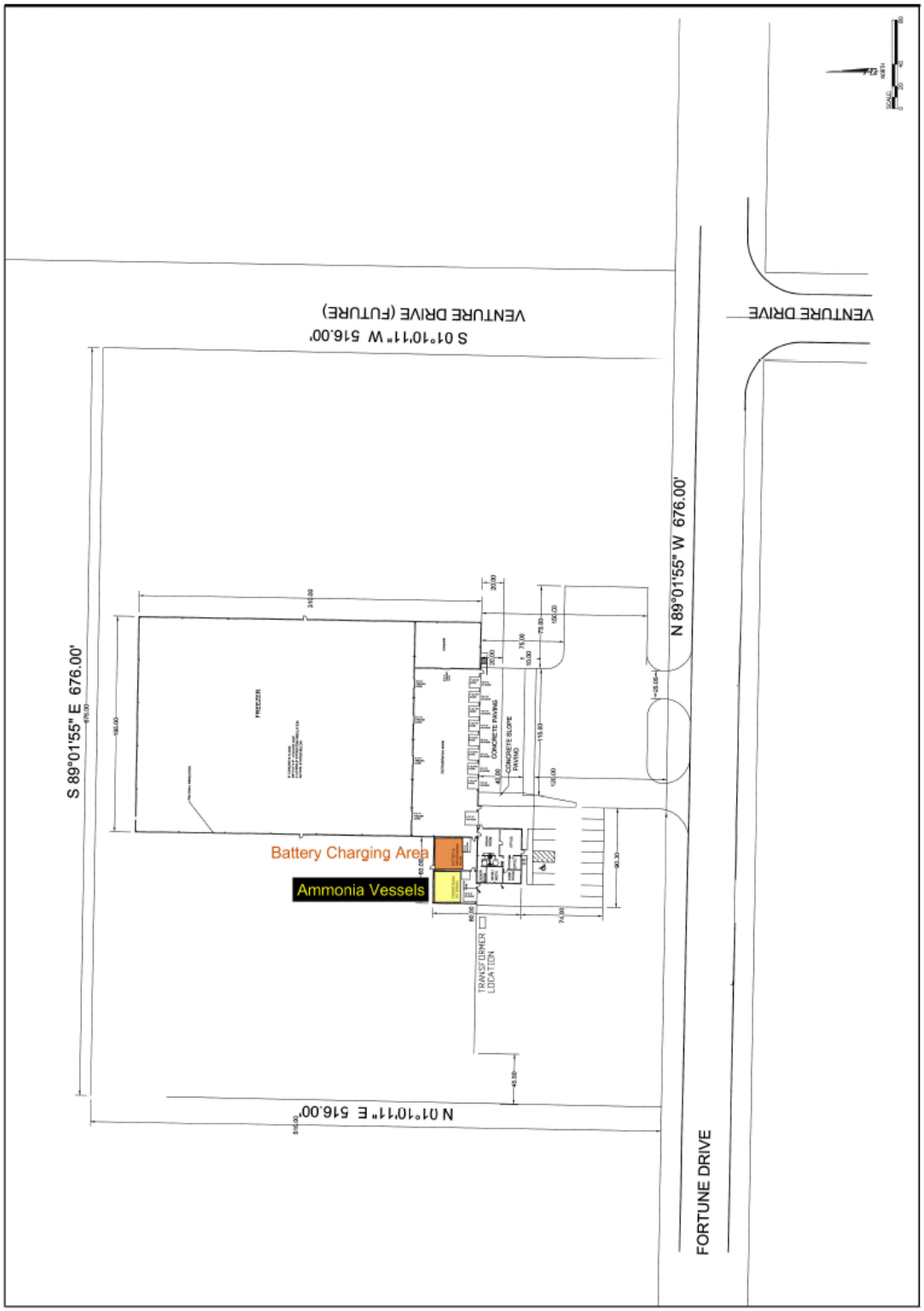
Experience indicated that shelter space would need to be provided for only 30% of the population within the initial isolation and evacuation zones and the remaining 70% would seek shelter with family and friends outside the risk zone. All public schools listed are eligible evacuation shelters.

SECTION VII: SPECIAL CONSIDERATIONS

A. POTENTIAL FOR AFFECTING OTHER JURISDICTIONS

The vulnerability zone is greater than 10 miles and extends outside of Eau Claire County into Chippewa and Dunn County(ies). Eau Claire County Emergency Management will notify, in writing, all counties affected that a particular section of their jurisdiction falls within the vulnerability of that planning facility. A copy of the plan, after it has been accepted by Wisconsin Emergency Management (WEM), will be provided to the County Emergency Management Offices of those counties that are affected by the facility's vulnerability zone.

SECTION VIII: SITE PLAN MAP



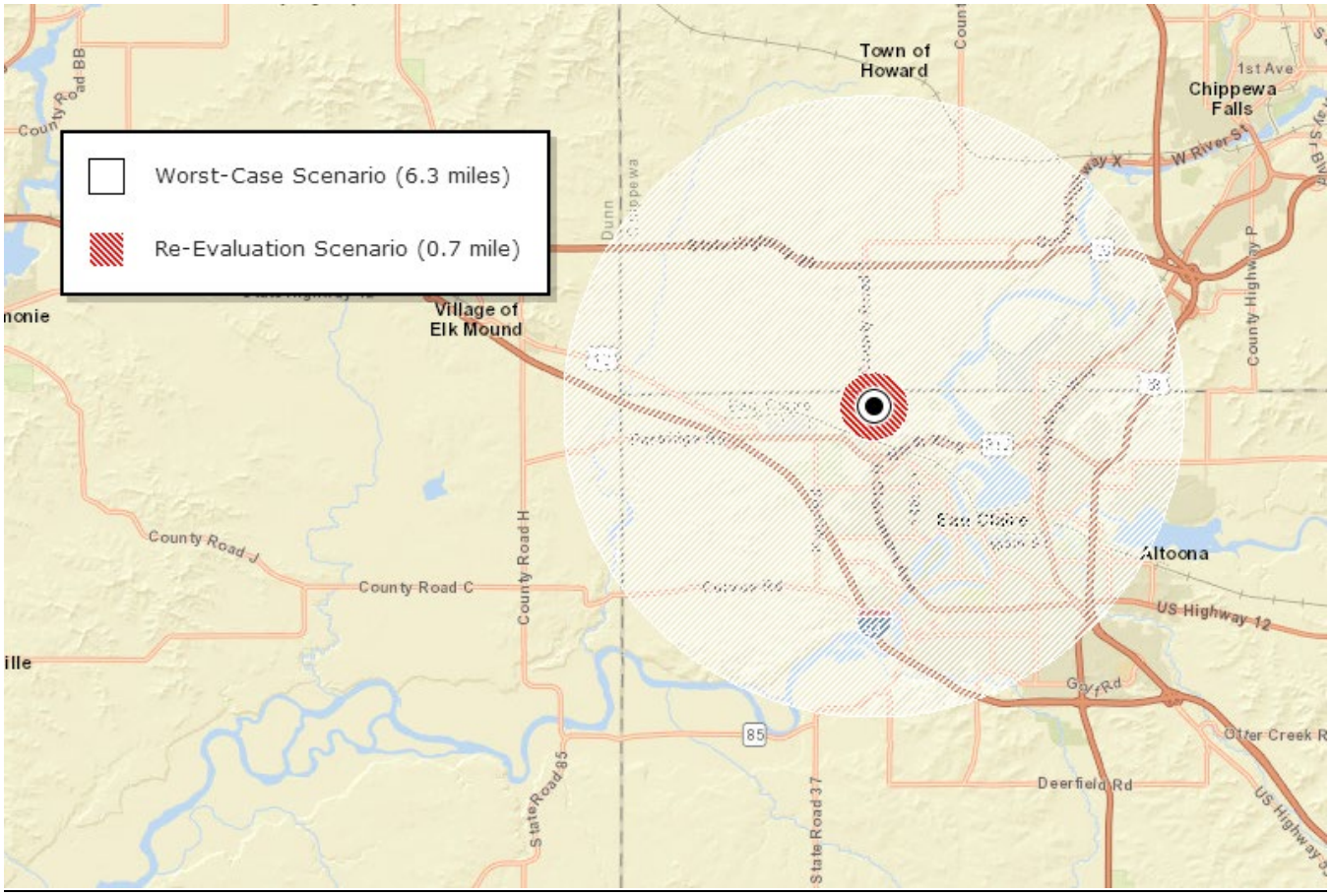
SECTION IX: DISTRIBUTION LIST

Facility
Eau Claire Fire Department
Wisconsin Emergency Management West Central Regional Office
Eau Claire Fire Department Hazmat
Eau Claire County Emergency Management Office
Adjacent County Emergency Management Office

SECTION X: ATTACHMENTS

Attachment 1: Vulnerability Zone Maps

Anhydrous Ammonia



Attachment 2: SDS Data Sheets

SAFETY DATA SHEET

Ammonia

Airgas
an Air Liquide company

Section 1. Identification

GHS product identifier : Ammonia

Chemical name : ammonia, anhydrous

Other means of identification : ammonia; anhydrous ammonia; Aqueous ammonia; Aqua ammonia

Product use : Synthetic/Analytical chemistry.

Synonym : ammonia; anhydrous ammonia; Aqueous ammonia; Aqua ammonia

SDS # : 001003

Supplier's details : Airgas USA, LLC and its affiliates
259 North Radnor-Chester Road
Suite 100
Radnor, PA 19087-5283
1-610-687-5253

24-hour telephone : 1-866-734-3438

Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture : FLAMMABLE GASES - Category 2
GASES UNDER PRESSURE - Liquefied gas
ACUTE TOXICITY (inhalation) - Category 4
SKIN CORROSION/IRRITATION - Category 1
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1
AQUATIC HAZARD (ACUTE) - Category 1

GHS label elements

Hazard pictograms :

Signal word : Danger

Hazard statements : Flammable gas.
Contains gas under pressure; may explode if heated.
May cause frostbite.
May form explosive mixtures in Air.
Harmful if inhaled.
Causes severe skin burns and eye damage.
Very toxic to aquatic life.

Precautionary statements

General : Read and follow all Safety Data Sheets (SDS'S) before use. Close valve after each use and when empty. Use equipment rated for cylinder pressure. Do not open valve until connected to equipment prepared for use. Use a back flow preventative device in the piping. Use only equipment of compatible materials of construction. Always keep container in upright position. Approach suspected leak area with caution.

Prevention : Wear protective gloves. Wear eye or face protection. Wear protective clothing. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use only outdoors or in a well-ventilated area. Avoid release to the environment. Avoid breathing gas. Wash hands thoroughly after handling.

Section 2. Hazards identification

Response : Collect spillage. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or physician. IF SWALLOWED: Immediately call a POISON CENTER or physician. Rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. Wash contaminated clothing before reuse. Immediately call a POISON CENTER or physician. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or physician. Leaking gas fire: Do not extinguish, unless leak can be stopped safely. Eliminate all ignition sources if safe to do so.

Storage : Store locked up. Protect from sunlight when ambient temperature exceeds 52°C/125°F. Store in a well-ventilated place.

Disposal : Dispose of contents and container in accordance with all local, regional, national and international regulations.

Hazards not otherwise classified : Liquid can cause burns similar to frostbite.

Section 3. Composition/information on ingredients

Substance/mixture : Substance

Chemical name : ammonia, anhydrous

Other means of identification : ammonia; anhydrous ammonia; Aqueous ammonia; Aqua ammonia

CAS number/other identifiers

CAS number : 7664-41-7

Product code : 001003

Ingredient name	%	CAS number
ammonia, anhydrous	100	7664-41-7

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact : Get medical attention immediately. Call a poison center or physician. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician.

Inhalation : Get medical attention immediately. Call a poison center or physician. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

Skin contact : Get medical attention immediately. Call a poison center or physician. Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. To avoid the risk of static discharges and gas ignition, soak contaminated clothing thoroughly with water before removing it. Continue to rinse for at least 10 minutes. In case of contact with liquid, warm frozen tissues slowly with lukewarm water and get medical attention. Do not rub affected area. Chemical burns must be treated promptly by a physician. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Section 4. First aid measures

Ingestion : Get medical attention immediately. Call a poison center or physician. Remove victim to fresh air and keep at rest in a position comfortable for breathing. Chemical burns must be treated promptly by a physician. Ingestion of liquid can cause burns similar to frostbite. If frostbite occurs, get medical attention. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. As this product rapidly becomes a gas when released, refer to the inhalation section.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact : Causes serious eye damage. Liquid can cause burns similar to frostbite.

Inhalation : Harmful if inhaled.

Skin contact : Causes severe burns. Dermal contact with rapidly evaporating liquid could result in freezing of the tissues or frostbite.

Frostbite : Try to warm up the frozen tissues and seek medical attention.

Ingestion : Ingestion of liquid can cause burns similar to frostbite.

Over-exposure signs/symptoms

Eye contact : Adverse symptoms may include the following:, pain, watering, redness, frostbite

Inhalation : No specific data.

Skin contact : Adverse symptoms may include the following:, pain or irritation, redness, blistering may occur, frostbite

Ingestion : Adverse symptoms may include the following:, frostbite, stomach pains

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

Specific treatments : No specific treatment.

Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media : Use an extinguishing agent suitable for the surrounding fire.

Unsuitable extinguishing media : None known.

Specific hazards arising from the chemical : Contains gas under pressure. Flammable gas. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. This material is very toxic to aquatic life. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

Hazardous thermal decomposition products : Decomposition products may include the following materials:
nitrogen oxides

Section 5. Fire-fighting measures

Special protective actions for fire-fighters : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Contact supplier immediately for specialist advice. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool. If involved in fire, shut off flow immediately if it can be done without risk. If this is impossible, withdraw from area and allow fire to burn. Fight fire from protected location or maximum possible distance. Eliminate all ignition sources if safe to do so.

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. For incidents involving large quantities, thermally insulated undergarments and thick textile or leather gloves should be worn.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : Accidental releases pose a serious fire or explosion hazard. No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Do not breathe gas. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders : If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Environmental precautions : Ensure emergency procedures to deal with accidental gas releases are in place to avoid contamination of the environment. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities. Collect spillage.

Methods and materials for containment and cleaning up

Small spill : Immediately contact emergency personnel. Stop leak if without risk. Use spark-proof tools and explosion-proof equipment.

Large spill : Immediately contact emergency personnel. Stop leak if without risk. Use spark-proof tools and explosion-proof equipment. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

Protective measures : Put on appropriate personal protective equipment (see Section 8). Contains gas under pressure. Do not get in eyes or on skin or clothing. Do not breathe gas. Avoid release to the environment. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Store and use away from heat, sparks, open flame or any other ignition source. Empty containers retain product residue and can be hazardous. Do not puncture or incinerate container. Use equipment rated for cylinder pressure. Close valve after each use and when empty. Protect cylinders from physical damage; do not drag, roll, slide, or drop. Use a suitable hand truck for cylinder movement.

Advice on general occupational hygiene : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Section 7. Handling and storage

Conditions for safe storage, including any incompatibilities : Store in accordance with local regulations. Store in a segregated and approved area. Store away from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10). Store locked up. Eliminate all ignition sources. Keep container tightly closed and sealed until ready for use. Cylinders should be stored upright, with valve protection cap in place, and firmly secured to prevent falling or being knocked over. Cylinder temperatures should not exceed 52 °C (125 °F).
Refer to ANSI/CGA G-2.1, Section 5.13 for electrical classification of anhydrous ammonia storage and handling areas. Where anhydrous ammonia is stored indoors, use electrical (ventilating, lighting and material handling) equipment with the appropriate electrical classification rating and use only non-sparking tools.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
ammonia, anhydrous	**ACGIH TLV (United States, 3/2015).** STEL: 24 mg/m³ 15 minutes. STEL: 35 ppm 15 minutes. TWA: 17 mg/m³ 8 hours. TWA: 25 ppm 8 hours. **NIOSH REL (United States, 10/2013).** STEL: 27 mg/m³ 15 minutes. STEL: 35 ppm 15 minutes. TWA: 18 mg/m³ 10 hours. TWA: 25 ppm 10 hours. **OSHA PEL (United States, 2/2013).** TWA: 35 mg/m³ 8 hours. TWA: 50 ppm 8 hours. **OSHA PEL 1989 (United States, 3/1989).** STEL: 27 mg/m³ 15 minutes. STEL: 35 ppm 15 minutes.

Appropriate engineering controls : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use ventilation equipment with the appropriate electrical classification rating.

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles and/or face shield. If inhalation hazards exist, a full-face respirator may be required instead.

Skin protection

Section 8. Exposure controls/personal protection

Hand protection : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. If contact with the liquid is possible, insulated gloves suitable for low temperatures should be worn. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Body protection : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.

Other skin protection : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection : Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Section 9. Physical and chemical properties

Appearance

Physical state : Gas. [Liquefied gas]

Color : Colorless.

Molecular weight : 17.03 g/mole

Molecular formula : H3-N

Boiling/condensation point : -33°C (-27.4°F)

Melting/freezing point : -77.7°C (-107.9°F)

Critical temperature : 132.85°C (271.1°F)

Odor : Pungent.

Odor threshold : Not available.

pH : Not available.

Flash point : Not available.

Burning time : Not applicable.

Burning rate : Not applicable.

Evaporation rate : Not available.

Flammability (solid, gas) : Extremely flammable in the presence of the following materials or conditions: oxidizing materials.

Lower and upper explosive (flammable) limits : Lower: 15%
Upper: 28%

Vapor pressure : 114.1 (psig)

Vapor density : 0.59 (Air = 1)

Specific Volume (ft^3/lb) : 22.7273

Gas Density (lb/ft^3) : 0.044

Relative density : Not applicable.

Solubility : Not available

Solubility in water : 540 g/l

Partition coefficient: n-octanol/water : Not available.

Auto-ignition temperature : 651°C (1203.8°F)

Decomposition temperature : Not available.

Section 9. Physical and chemical properties

SADT : Not available.

Viscosity : Not applicable.

Physical/chemical properties comments : SPECIFIC GRAVITY (AIR=1): @ 70°F (21.1°C) = 0.59
PH: Approx. 11.6 for 1 N Sol'n. in water

Section 10. Stability and reactivity

Reactivity : No specific test data related to reactivity available for this product or its ingredients.

Chemical stability : The product is stable.

Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to avoid : Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition.

Incompatible materials : Oxidizers

Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Hazardous polymerization : Under normal conditions of storage and use, hazardous polymerization will not occur.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
ammonia, anhydrous	LC50 Inhalation Gas.	Rat	7338 ppm	1 hours

IDLH : 300 ppm

Irritation/Corrosion

Not available.

Sensitization

Not available.

Mutagenicity

Not available.

Carcinogenicity

Not available.

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Section 11. Toxicological information

Not available.

Information on the likely routes of exposure : Not available.

Potential acute health effects

Eye contact : Causes serious eye damage. Liquid can cause burns similar to frostbite.

Inhalation : Harmful if inhaled.

Skin contact : Causes severe burns. Dermal contact with rapidly evaporating liquid could result in freezing of the tissues or frostbite.

Ingestion : Ingestion of liquid can cause burns similar to frostbite.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : Adverse symptoms may include the following:, pain, watering, redness, frostbite

Inhalation : No specific data.

Skin contact : Adverse symptoms may include the following:, pain or irritation, redness, blistering may occur, frostbite

Ingestion : Adverse symptoms may include the following:, frostbite, stomach pains

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

Not available.

General : No known significant effects or critical hazards.

Carcinogenicity : No known significant effects or critical hazards.

Mutagenicity : No known significant effects or critical hazards.

Teratogenicity : No known significant effects or critical hazards.

Developmental effects : No known significant effects or critical hazards.

Fertility effects : No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Not available.

Other information : IDLH : 300 ppm

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
ammonia, anhydrous	Acute EC50 29.2 mg/l Marine water Acute LC50 2080 µg/l Fresh water Acute LC50 0.53 ppm Fresh water Acute LC50 300 µg/l Fresh water Chronic NOEC 0.204 mg/l Marine water	Algae - Ulva fasciata - Zoea Crustaceans - Gammarus pulex Daphnia - Daphnia magna Fish - Hypophthalmichthys nobilis Fish - Dicentrarchus labrax	96 hours 48 hours 48 hours 96 hours 62 days

Persistence and degradability

Not available.

Bioaccumulative potential

Not available.

Mobility in soil

Soil/water partition coefficient (K_{OC}) : Not available.

Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Empty Airgas-owned pressure vessels should be returned to Airgas. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Do not puncture or incinerate container.

Section 14. Transport information

	DOT	TDG	Mexico	IMDG	IATA
UN number	UN1005	UN1005	UN1005	UN1005	UN1005
UN proper shipping name	AMMONIA, ANHYDROUS	AMMONIA, ANHYDROUS; OR ANHYDROUS AMMONIA	AMMONIA, ANHYDROUS	AMMONIA, ANHYDROUS	AMMONIA, ANHYDROUS
Transport hazard class(es)	2.2 	2.3 (8) 	2.3 (8) 	2.3 (8) 	2.3 (8) 
Packing group	-	-	-	-	-
Environment	No.	No.	No.	Yes.	No.

Section 14. Transport information

Additional information	Inhalation hazard This product is not regulated as a marine pollutant when transported on inland waterways in sizes of ≤5 L or ≤5 kg or by road, rail, or inland air in non-bulk sizes, provided the packagings meet the general provisions of §§ 173.24 and 173.24a. **Reportable quantity** 100 lbs / 45.4 kg Package sizes shipped in quantities less than the product reportable quantity are not subject to the RQ (reportable quantity) transportation requirements. **Limited quantity** Yes. **Packaging instruction** **Passenger aircraft** Quantity limitation: Forbidden. **Cargo aircraft** Quantity limitation: Forbidden. **Special provisions** 13,T50	Product classified as per the following sections of the Transportation of Dangerous Goods Regulations: 2.13-2.17 (Class 2), 2.40-2.42 (Class 8), 2.7 (Marine pollutant mark). The marine pollutant mark is not required when transported by road or rail. **Explosive Limit and Limited Quantity Index** 0 **ERAP Index** 3000 **Passenger Carrying Ship Index** Forbidden **Passenger Carrying Road or Rail Index** Forbidden **Special provisions**	Toxic Inhalation Hazard Zone D	The marine pollutant mark is not required when transported in sizes of ≤5 L or ≤5 kg.	The environmentally hazardous substance mark may appear if required by other transportation regulations. **Passenger and Cargo Aircraft**Quantity limitation: 0 Forbidden **Cargo Aircraft Only** Quantity limitation: Forbidden

"Refer to CFR 49 (or authority having jurisdiction) to determine the information required for shipment of the product."

Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code : Not available.

Section 15. Regulatory information

U.S. Federal regulations : **TSCA 8(a) CDR Exempt/Partial exemption**: Not determined

United States inventory (TSCA 8b): This material is listed or exempted.

Clean Water Act (CWA) 311: ammonia, anhydrous

Clean Air Act (CAA) 112 regulated toxic substances: ammonia, anhydrous

Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs) : Not listed

Clean Air Act Section 602 Class I Substances : Not listed

Clean Air Act Section 602 Class II Substances : Not listed

DEA List I Chemicals (Precursor Chemicals) : Not listed

Section 15. Regulatory information

DEA List II Chemicals (Essential Chemicals) : Not listed

SARA 302/304

Composition/information on ingredients

Name	%	EHS	SARA 302 TPQ (lbs)	SARA 302 TPQ (gallons)	SARA 304 RQ (lbs)	SARA 304 RQ (gallons)
ammonia, anhydrous	100	Yes.	500	-	100	-

SARA 304 RQ : 100 lbs / 45.4 kg

SARA 311/312

Classification : Fire hazard
Sudden release of pressure
Immediate (acute) health hazard

Composition/information on ingredients

Name	%	Fire hazard	Sudden release of pressure	Reactive	Immediate (acute) health hazard	Delayed (chronic) health hazard
ammonia, anhydrous	100	Yes.	Yes.	No.	Yes.	No.

SARA 313

	Product name	CAS number	%
Form R - Reporting requirements	ammonia, anhydrous	7664-41-7	100
Supplier notification	ammonia, anhydrous	7664-41-7	100

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

State regulations

Massachusetts : This material is listed.
New York : This material is listed.
New Jersey : This material is listed.
Pennsylvania : This material is listed.

International regulations

International lists

National inventory

Australia : This material is listed or exempted.
Canada : This material is listed or exempted.
China : This material is listed or exempted.
Europe : This material is listed or exempted.
Japan : This material is listed or exempted.
Malaysia : This material is listed or exempted.
New Zealand : This material is listed or exempted.
Philippines : This material is listed or exempted.
Republic of Korea : This material is listed or exempted.
Taiwan : This material is listed or exempted.

Canada

WHMIS (Canada) : Class A: Compressed gas.
Class B-1: Flammable gas.
Class D-1A: Material causing immediate and serious toxic effects (Very toxic).
Class E: Corrosive material

Section 15. Regulatory information

CEPA Toxic substances: This material is listed.
Canadian ARET: This material is not listed.
Canadian NPRI: This material is listed.
Alberta Designated Substances: This material is not listed.
Ontario Designated Substances: This material is not listed.
Quebec Designated Substances: This material is not listed.

Section 16. Other information

Canada Label requirements : Class A: Compressed gas.
Class B-1: Flammable gas.
Class D-1A: Material causing immediate and serious toxic effects (Very toxic).
Class E: Corrosive material

Hazardous Material Information System (U.S.A.)

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks Although HMIS® ratings are not required on SDSs under 29 CFR 1910. 1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

The customer is responsible for determining the PPE code for this material.

National Fire Protection Association (U.S.A.)

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Copyright ©2001, National Fire Protection Association, Quincy, MA 02269. This warning system is intended to be interpreted and applied only by properly trained individuals to identify fire, health and reactivity hazards of chemicals. The user is referred to certain limited number of chemicals with recommended classifications in NFPA 49 and NFPA 325, which would be used as a guideline only. Whether the chemicals are classified by NFPA or not, anyone using the 704 systems to classify chemicals does so at their own risk.

Procedure used to derive the classification

Classification	Justification
Flam. Gas 2, H221	Expert judgment
Press. Gas Liq. Gas, H280	Expert judgment
Acute Tox. 4, H332	Expert judgment
Skin Corr. 1, H314	Expert judgment
Eye Dam. 1, H318	Expert judgment
Aquatic Acute 1, H400	Expert judgment

History

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Date of previous issue : 12/20/2016
Version : 0.09

Section 16. Other information

Key to abbreviations : ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL 73/78 = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
UN = United Nations

References : Not available.

Indicates information that has changed from previously issued version.

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.
Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

SAFETY DATA SHEET

Version 6.17
Revision Date 08/23/2023
Print Date 01/13/2024

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifiers

Product name : Sulfuric acid

Product Number : 339741
Brand : Aldrich
Index-No. : 016-020-00-8
CAS-No. : 7664-93-9

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses : Laboratory chemicals, Synthesis of substances

1.3 Details of the supplier of the safety data sheet

Company : Sigma-Aldrich Inc.
3050 SPRUCE ST
ST. LOUIS MO 63103
UNITED STATES

Telephone : +1 314 771-5765
Fax : +1 800 325-5052

1.4 Emergency telephone

Emergency Phone # : 800-424-9300 CHEMTREC (USA) +1-703-527-3887 CHEMTREC (International) 24 Hours/day; 7 Days/week

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Corrosive to Metals (Category 1), H290
Skin corrosion (Category 1A), H314
Serious eye damage (Category 1), H318

For the full text of the H-Statements mentioned in this Section, see Section 16.

2.2 GHS Label elements, including precautionary statements

Pictogram 

Signal Word Danger

Hazard statement(s)

H290	May be corrosive to metals.
H314	Causes severe skin burns and eye damage.

Precautionary statement(s)

P234	Keep only in original container.
P264	Wash skin thoroughly after handling.
P280	Wear protective gloves/ protective clothing/ eye protection/ face protection.
P301 + P330 + P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303 + P361 + P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower.
P304 + P340 + P310	IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/ doctor.
P305 + P351 + P338 + P310	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/ doctor.
P363	Wash contaminated clothing before reuse.
P390	Absorb spillage to prevent material damage.
P405	Store locked up.
P406	Store in corrosive resistant container with a resistant inner liner.
P501	Dispose of contents/ container to an approved waste disposal plant.

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS - none

SECTION 3: Composition/information on ingredients

3.1 Substances

Formula	:	H_2O_4S
Molecular weight	:	98.08 g/mol
CAS-No.	:	7664-93-9
EC-No.	:	231-639-5
Index-No.	:	016-020-00-8

Component	Classification	Concentration
sulphuric acid		
	Met. Corr. 1; Skin Corr. 1A; Eye Dam. 1; H290, H314, H318 Concentration limits: >= 0.3 %: Met. Corr. 1, H290; >= 15 %: Skin Corr. 1A, H314; 5 - < 15 %: Skin Irrit. 2, H315; 5 - < 15 %: Eye Irrit. 2, H319;	<= 100 %

For the full text of the H-Statements mentioned in this Section, see Section 16.

SECTION 4: First aid measures

4.1 Description of first-aid measures

General advice
First aiders need to protect themselves. Show this material safety data sheet to the doctor in attendance.

If inhaled
After inhalation: fresh air. Call in physician.

In case of skin contact
In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower. Call a physician immediately.

In case of eye contact
After eye contact: rinse out with plenty of water. Immediately call in ophthalmologist. Remove contact lenses.

If swallowed
After swallowing: make victim drink water (two glasses at most), avoid vomiting (risk of perforation). Call a physician immediately. Do not attempt to neutralise.

4.2 Most important symptoms and effects, both acute and delayed
The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

4.3 Indication of any immediate medical attention and special treatment needed
No data available

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media
For this substance/mixture no limitations of extinguishing agents are given.

5.2 Special hazards arising from the substance or mixture
Sulfur oxides
Not combustible.
Ambient fire may liberate hazardous vapours.

5.3 Advice for firefighters
Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

5.4 Further information
Suppress (knock down) gases/vapors/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel: Do not breathe vapors, aerosols. Avoid substance contact. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert.
For personal protection see section 8.

6.2 Environmental precautions

Do not let product enter drains.

6.3 Methods and materials for containment and cleaning up

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up with liquid-absorbent and neutralising material (e.g. Chemizorb® H^+, Merck Art. No. 101595). Dispose of properly. Clean up affected area.

6.4 Reference to other sections

For disposal see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities

Storage conditions
No metal containers.
Tightly closed.

Storage class
Storage class (TRGS 510): 8B: Non-combustible, corrosive hazardous materials

7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Ingredients with workplace control parameters

Component	CAS-No.	Value	Control parameters	Basis
sulphuric acid	7664-93-9	TWA	0.2 mg/m3	USA. ACGIH Threshold Limit Values (TLV)
		TWA	1 mg/m3	USA. Table Z-1-A Limits for Air Contaminants (1989 vacated values)
		TWA	1 mg/m3	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants

8.2 Exposure controls

Appropriate engineering controls
Change contaminated clothing and immerse in water. Preventive skin protection Wash hands and face after working with substance.

Personal protective equipment

Eye/face protection
Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Tightly fitting safety goggles

Skin protection
This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN 16523-1 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de).
Full contact
Material: Viton®
Minimum layer thickness: 0.7 mm
Break through time: 480 min
Material tested:Vitoject® (KCL 890 / Aldrich Z677698, Size M)

This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN 16523-1 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de).
Splash contact
Material: butyl-rubber
Minimum layer thickness: 0.7 mm
Break through time: 120 min
Material tested:Butoject® (KCL 898)

Body Protection
Acid-resistant protective clothing

Respiratory protection
Recommended Filter type: Filter type P2
The entrepeneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer.
These measures have to be properly documented.

required when vapours/aerosols are generated. Our recommendations on filtering respiratory protection are based on the following standards: DIN EN 143, DIN 14387 and other accompanying standards relating to the used respiratory protection system.

Control of environmental exposure
Do not let product enter drains.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

a)	Appearance	Form: clear, liquid Color: colorless
b)	Odor	odorless
c)	Odor Threshold	Not applicable
d)	pH	1.2 at 5 g/l
e)	Melting point/freezing point	Melting point: 10.31 °C (50.56 °F)
f)	Initial boiling point and boiling range	290 °C 554 °F - lit.
g)	Flash point	()No data available
h)	Evaporation rate	No data available
i)	Flammability (solid, gas)	No data available
j)	Upper/lower flammability or explosive limits	No data available
k)	Vapor pressure	1.33 hPa at 145.8 °C (294.4 °F)
l)	Vapor density	3.39 - (Air = 1.0)
m)	Density	1.84 g/cm3 at 25 °C (77 °F) - lit.
	Relative density	No data available
n)	Water solubility	soluble
o)	Partition coefficient: n-octanol/water	Not applicable for inorganic substances
p)	Autoignition temperature	No data available
q)	Decomposition temperature	No data available
r)	Viscosity	No data available
s)	Explosive properties	No data available
t)	Oxidizing properties	none

9.2 Other safety information

Surface tension	55.1 mN/m at 20 °C (68 °F)
Relative vapor density	3.39 - (Air = 1.0)

SECTION 10: Stability and reactivity

10.1 Reactivity
No data available

10.2 Chemical stability
The product is chemically stable under standard ambient conditions (room temperature) .

10.3 Possibility of hazardous reactions
A risk of explosion and/or of toxic gas formation exists with the following substances:
Water
Alkali metals
alkali compounds
Ammonia
Aldehydes
acetonitrile
Alkaline earth metals
alkalines
Acids
alkaline earth compounds
Metals
metal alloys
Oxides of phosphorus
phosphorus
hydrides
halogen-halogen compounds
oxyhalogenic compounds
permanganates
nitrates
carbides
combustible substances
organic solvent
acetylidene
Nitriles
organic nitro compounds
anilines
Peroxides
picrates
nitrides
lithium silicide
iron(III) compounds
bromates
chlorates
Amines
perchlorates
hydrogen peroxide

10.4 Conditions to avoid
no information available

10.5 Incompatible materials
animal/vegetable tissuesContact with metals liberates hydrogen gas.

10.6 Hazardous decomposition products
In the event of fire: see section 5

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity
LD50 Oral - Rat - male and female - 2,140 mg/kg
Remarks: (ECHA)
Inhalation: No data available
Dermal: No data available

Skin corrosion/irritation
Skin - Rabbit
Result: Extremely corrosive and destructive to tissue.
Remarks: (IUCLID)

Serious eye damage/eye irritation
Remarks: Causes serious eye damage.

Respiratory or skin sensitization
No data available

Germ cell mutagenicity
Test Type: Ames test
Test system: Salmonella typhimurium
Result: negative
Remarks: (HSDB)

Carcinogenicity
No data available

IARC:	No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
NTP:	No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
OSHA:	No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

Reproductive toxicity
No data available

Specific target organ toxicity - single exposure
No data available

Specific target organ toxicity - repeated exposure
No data available

Aspiration hazard
No data available

11.2 Additional Information

RTECS: WS5600000
Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin., spasm, inflammation and edema of the larynx, spasm, inflammation and edema of the bronchi, pneumonitis, pulmonary edema, burning sensation, Cough, wheezing, laryngitis, Shortness of breath, Headache, Nausea, Vomiting, Pulmonary edema. Effects may be delayed.
To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

After inhalation of aerosols: damage to the affected mucous membranes. After skin contact: severe burns with formation of scabs. After eye contact: burns, corneal lesions. After swallowing: severe pain (risk of perforation!), nausea, vomiting and diarrhoea. After a latency period of several weeks possibly pyloric stenosis.

Other dangerous properties can not be excluded.

Handle in accordance with good industrial hygiene and safety practice.

Stomach - Irregularities - Based on Human Evidence

Stomach - Irregularities - Based on Human Evidence

SECTION 12: Ecological information

12.1 Toxicity

Toxicity to daphnia and other aquatic invertebrates	static test EC50 - Daphnia magna (Water flea) - > 100 mg/l - 48 h (OECD Test Guideline 202)
Toxicity to algae	static test ErC50 - Desmodesmus subspicatus (green algae) - > 100 mg/l - 72 h (OECD Test Guideline 201)

12.2 Persistence and degradability
The methods for determining the biological degradability are not applicable to inorganic substances.

12.3 Bioaccumulative potential
No data available

12.4 Mobility in soil
No data available

12.5 Results of PBT and vPvB assessment
PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

12.6 Endocrine disrupting properties
No data available

12.7 Other adverse effects

Biological effects:
Harmful effect due to pH shift.
Caustic even in diluted form.
Does not cause biological oxygen deficit.
Endangers drinking-water supplies if allowed to enter soil and/or waters in large quantities.
Neutralisation possible in waste water treatment plants.
Discharge into the environment must be avoided.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product
Waste material must be disposed of in accordance with the national and local regulations. Leave chemicals in original containers. No mixing with other waste. Handle uncleaned containers like the product itself.

SECTION 14: Transport information

DOT (US)
UN number: 1830 Class: 8 Packing group: II
Proper shipping name: Sulfuric acid
Reportable Quantity (RQ): 1000 lbs
Poison Inhalation Hazard: No

IMDG
UN number: 1830 Class: 8 Packing group: II EMS-No: F-A, S-B
Proper shipping name: SULPHURIC ACID

IATA
UN number: 1830 Class: 8 Packing group: II
Proper shipping name: Sulphuric acid

SECTION 15: Regulatory information

SARA 302 Components

	CAS-No.	Revision Date
sulphuric acid	7664-93-9	2007-07-01

SARA 313 Components
The following components are subject to reporting levels established by SARA Title III, Section 313:

	CAS-No.	Revision Date
sulphuric acid	7664-93-9	2007-07-01

SARA 311/312 Hazards
Acute Health Hazard, Chronic Health Hazard

Massachusetts Right To Know Components

	CAS-No.	Revision Date
sulphuric acid	7664-93-9	2007-07-01

Pennsylvania Right To Know Components

	CAS-No.	Revision Date
sulphuric acid	7664-93-9	2007-07-01

California Prop. 65 Components

	CAS-No.	Revision Date
, which is/are known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.sulphuric acid	7664-93-9	2007-09-28

SECTION 16: Other information

Further information
The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Sigma-Aldrich Corporation and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product. See www.sigma-aldrich.com and/or the reverse side of invoice or packing slip for additional terms and conditions of sale.

The branding on the header and/or footer of this document may temporarily not visually match the product purchased as we transition our branding. However, all of the information in the document regarding the product remains unchanged and matches the product ordered. For further information please contact mlsbranding@sial.com.

Version: 6.17 Revision Date: 08/23/2023 Print Date: 01/13/2024

Attachment 3: Vulnerability Zone Calculations

Facility Name: CENTRAL STORAGE & WAREHOUSE LLC. Report Year: 2023 City: EAU CLAIRE State: WI

Chemical Name: ANHYDROUS AMMONIA CAS Number: 7664-41-7

Screening Name: Ammonia/Worst-Case

Screening Description

Amount Released	2,500	pounds
Concentration	100	% by weight
Release Duration	10	minutes
Physical State	(●) Gas ( ) Liquid ( ) Solid	
Surface area within dike		sq ft (enter a value only if stored in a container with a dike)
Atmospheric Concentration Level of Concern	0.035	gm/m^3

Matches the EPA Green Book LOC value for this chemical.

Weather Information

Wind Speed	3.35	mph
Ground Roughness	Open Country	
Stability Class	F	

Risk Assessment

Risk		Probability of described accident occurring
Consequences		Severity of consequences to people
Overall Risk		Combination of probability and severity of consequences

Estimate Threat Zone Radius — Threat Zone Radius 6.3 miles — Show on Map

Facility Name: CENTRAL STORAGE & WAREHOUSE LLC. Report Year: 2023 City: EAU CLAIRE State: WI

Chemical Name: ANHYDROUS AMMONIA CAS Number: 7664-41-7

Scenario Name: Ammonia/Reevaluation

Scenario Description

Amount Released	2,500	pounds
Concentration	100	% by weight
Release Duration	10	minutes
Physical State	(●) Gas ( ) Liquid ( ) Solid	
Surface area within dike		sq ft (enter a value only if stored in a container with a dike)
Atmospheric Concentration Level of Concern	0.035	gm/m^3

Matches the EPA Green Book LOC value for this chemical.

Weather Information

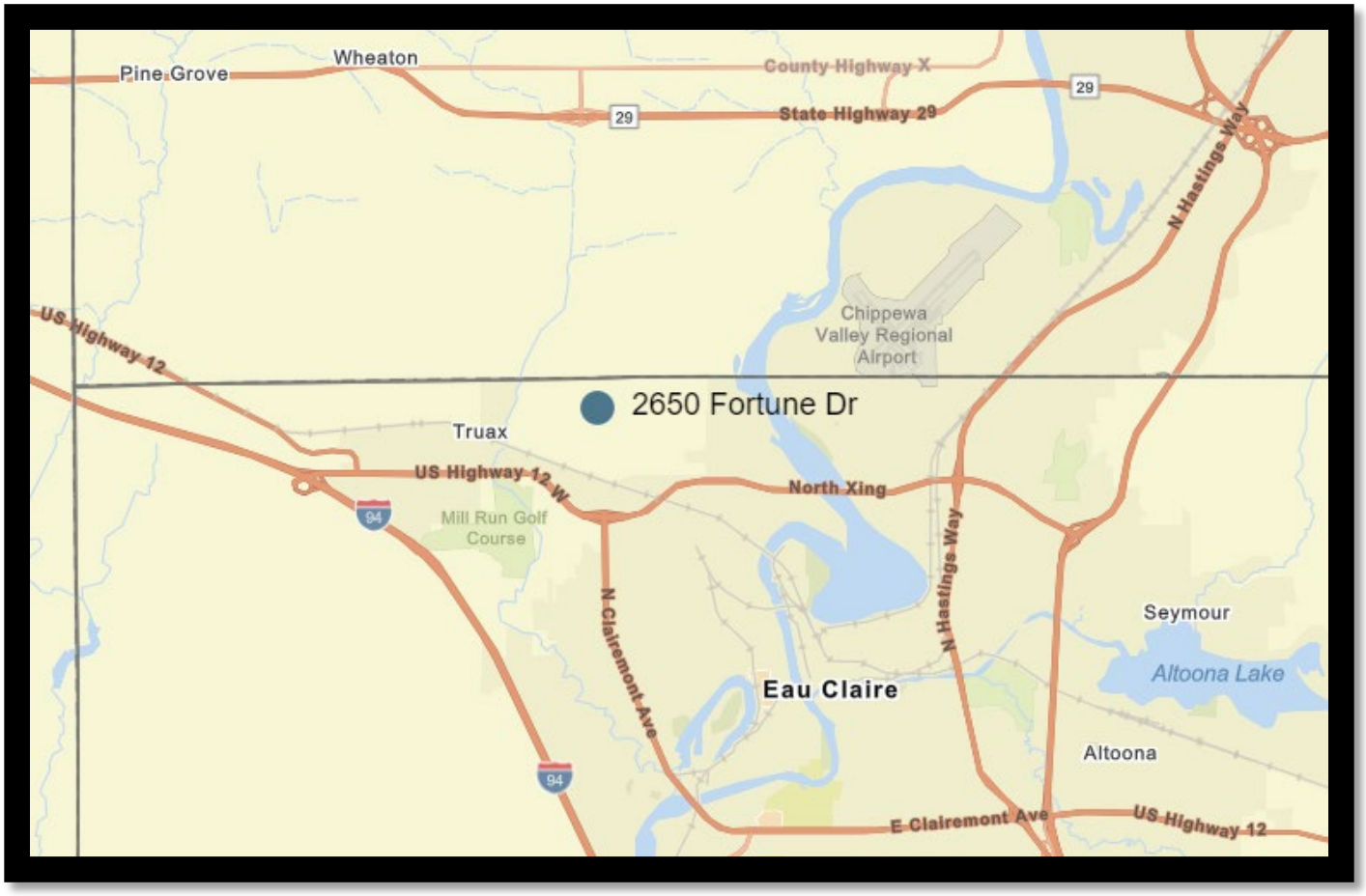
Wind Speed	11.9	mph
Wind From		degrees clockwise from 0 N (for example 45 means wind from NE)
Ground Roughness	Open Country	
Stability Class	D	

Risk Assessment

Risk		Probability of described accident occurring
Consequences		Severity of consequences to people
Overall Risk		Combination of probability and severity of consequences

Estimate Threat Zone Radius Threat Zone Radius 0.7 miles Show on Map

Attachment 4: Transportation Routes



Attachment 5: Sewer Map

Home City Ice, Eau Claire

Facility Off-Site

Emergency Response Plan

Facility #202993
Home City Ice, Eau Claire
2234 Sunset Dr
Eau Claire, WI 54703

Eau Claire County Office of Emergency Management
721 Oxford Avenue
Suite 3344
Eau Claire, Wisconsin 54703

TABLE OF CONTENTS

SECTION I: FACILITY INFORMATION

A. FACILITY LOCATION

Home City Ice, Eau Claire
2234 Sunset Dr
Eau Claire, WI 54703

B. FACILITY ID

202993

C. EMERGENCY CONTACTS

Primary:
Andrew Thalacker
Phone: 715-579-6824
24 Hour: 715-579-6824
athalacker@homecityice.com

Secondary:
Brady Fielder
Phone: 815-520-4462
24 Hour: 815-520-4462
bfielder@homecityice.com

D. ACCESS TO FACILITY

The facility operates 7 days a week from 7am-8pm. At any time, there may be up to 20 employees on site. The control point for the facility is the ammonia compressor room. The entrance closest to the compressor room is on the Southwest side of the building, inside the fenced gate.

E. CHEMICALS ON SITE: EXTREMELY HAZARDOUS SUBSTANCES (EHS)

Ammonia (anhydrous)	**Inventory:**	**Storage:**
Chemical ID: 469082 CAS: 7664-41-7 **ERG: Guide 125**	Max Daily Amount (lbs): 4500 Ave. Daily Amount (lbs): 4500 Number of days on site: 365	Container: Tank inside building Location: Sealed refrigeration system inside building

SECTION II: EMERGENCY RESPONSE

A. PRIMARY RESPONSE AGENCIES

- City of Eau Claire Police Department 715-839-4972
- Eau Claire Fire Department 715-839-5013
- Eau Claire Fire Department EMS 715-839-5013
- Eau Claire County Emergency Management 715-829-8499

B. HAZARDOUS MATERIALS RESPONSE TEAM

Eau Claire County has a Level B Hazardous Materials Response Team. For Level B response, the local Fire Chief notifies the Level B team of a response needed through the Eau Claire County Emergency Communications Center. For Level A responses by the Level A Regional Hazardous Materials Response Team, requests shall be made through the WEM Duty officer by the County Emergency Management Coordinator.

C. SUPPORT AND RESOURCES AVAILABLE FROM FACILITY

The facility is equipped with ammonia detectors and has access to gas masks, first aid kits, and an eye wash station.

SECTION III: GENERAL INFORMATION AND ASSUMPTIONS

The vulnerability zones set forth in the Plan are based on the EPA Technical Guidance for Hazards Analysis. The zones are based on a credible worst-case scenario and identify the potential area for impact should an air-borne release of a single EHS chemical occur.

The vulnerability zones are NOT intended to be used as a guide for population protection in fire-related incidents. Fire incidents were considered in the development of this plan and the plan provides basic information about the facility for first responders to employ. However, in an actual fire situation at this facility, the Incident commander is strongly recommended to reference the fire department own individual agency pre-emergency plans and standard operating procedures as well as the County's Emergency Operations Plan (EOP) – Emergency Support Function (ESF) 4: Firefighting, as they may relate to this facility when making decisions at an incident involving fire.

Further, fire departments that would respond to an incident at this facility are strongly encouraged to meet with facility representatives to determine ways to minimize an event at the facility and to determine what additional information and factors should be taken into consideration in the event of a fire, should one occur.

The field incident commander shall determine the actual response to an incident and the affected area may vary from the planning vulnerability zone identified in this Plan. Depending on wind speed and direction, the amount of material released and other pertinent factors, the ACTUAL vulnerability zone may be smaller, and in some instances larger, than the credible worst-case vulnerability zone identified herein.

The vulnerability zones determined in the Plan are for general PLANNING PURPOSES.

SECTION IV: HAZARD ANALYSIS

Home City Ice is an ice manufacturing facility located at 2234 Sunset Drive in Eau Claire, Wisconsin. The facility has two freezers for product storage. The facility is located in an urban area west of Highway 12 and South of Cameron Street; the immediate area is a mix of residential homes and commercial businesses. EHS utilized/stored at the facility includes anhydrous ammonia.

Anhydrous Ammonia

EHS Anhydrous Ammonia in a concentration of 100% solution is present at Home City Ice in a sealed refrigeration system inside the building. The maximum quantity stored at the facility is 4,500 lbs. The potential for release may be the result of mechanical failure.

The credible worst-case scenario (parameters listed below) would result from the rupture of the system releasing 4,500 lbs. of Anhydrous Ammonia in a concentration of 100% solution. According to the calculations derived from CAMEO for Hazard Analysis, the release would pose a hazard of greater than 10 miles. The Vulnerability Zone encompasses the entire Eau Claire/Chippewa Falls Urban Area (including the cities of Eau Claire, Altoona, and portions of Chippewa Falls), as well as portions of Dunn County. It is estimated that over 105,818 people (42,361 housing units) may be affected by the large release of anhydrous ammonia. According to FEMA's Resilience Analysis and Planning Tool as many as 6,014 households in this area do not have a vehicle and 16,608 households are without a smartphone.

Worst-Case Scenario criteria are:

- Very stable air (Class F)
- Night time
- Open area
- 3.35 mph wind
- IDLH (Immediately Dangerous to Life and Health) concentration
- Rapid release of maximum quantity of chemical in a single vessel (10 min.)

The re-evaluation scenario (parameters listed below) provides a more realistic representation of conditions in Eau Claire County. Results from the rupture of the system releasing 4,500 lbs. of Anyhydrous Ammonia in a concentration of 100% solution would pose a hazard of 1 mile. The population in this area is estimated to be 5,856 people (2,273 housing units). According to FEMA's Resilience Analysis and Planning Tool as many as 255 households in this area do not have a vehicle and 725 households are without a smartphone.

The re-evaluation scenario criteria are:

- Neutral Air Stability (Class D)
- Open Country
- 11.9 mph wind
- 1/10 IDLH (Immediately Dangerous to Life and Health) concentration
- 10 minute release of maximum quantity of chemical in a single vessel

SECTION V: SPECIAL FACILITIES AFFECTED

Special facilities (hospitals, nursing homes, schools, day care centers, correctional facilities, and other high population facilities with limited transportation) within the re-evaluation scenario are listed below and are identified on the required vulnerability zone map located in Attachment A.

Facility Name	Address	Phone	Capacity
Adventures Begin Childcare LLC	1721 Westgate Rd, Eau Claire, WI 54703	715-514-4442	75
Delong Middle School	2000 Vine St, Eau Claire, WI 54703	715-852-4900	1,004
Hillview Home	2220 Orchard Place, Eau Claire, WI	715-834-1965	4
Kess's Kids Family Day Care	2434 Haanstad Rd, Eau Claire, WI 54703	715-834-5954	8
Little Steps Day Care	2510 Melmar Ct, Eau Claire, WI 54703	715-456-7682	8
Northwest Pathways to Independence	2511 Calumet Rd, Eau Claire, WI 54703	715-552-5438	4
Peace Tree	2124 Briarwood Ct, Eau Claire, WI 54703	715-933-1434	8
Sherman Elementary	3110 W Vine St, Eau Claire, WI 54703	715-852-4800	492
Stable Living LLP	104/106 Illinois St, Eau Claire, WI 54703	715-456-6305	4

SECTION VI: POPULATION PROTECTION

A. SHELTER-IN-PLACE

The determination to shelter in place or to evacuate will be made by the on-scene commander as appropriate. The lead time for a hazardous materials incident may be very short. As a result, there may not be time enough for safe evacuation, especially when extremely toxic chemical fumes are involved. An evacuation under these considerations may expose the population to dangerous toxic chemicals and the decision may be made to shelter-in-place. Preferred areas for protective sheltering would be interior hallways, rooms without windows or exterior doors, enclosed stairways, and rooms on the side of the building away from where the hazard is approaching. Doors, windows, and other potential air leaks should be sealed up to prevent toxic fumes from entering.

B. EVACUATION

Experience indicates that shelter space would need to be provided for only 30% of the population within the initial isolation and evacuation zones and the remaining 70% would seek shelter with family and friends outside the risk zone.

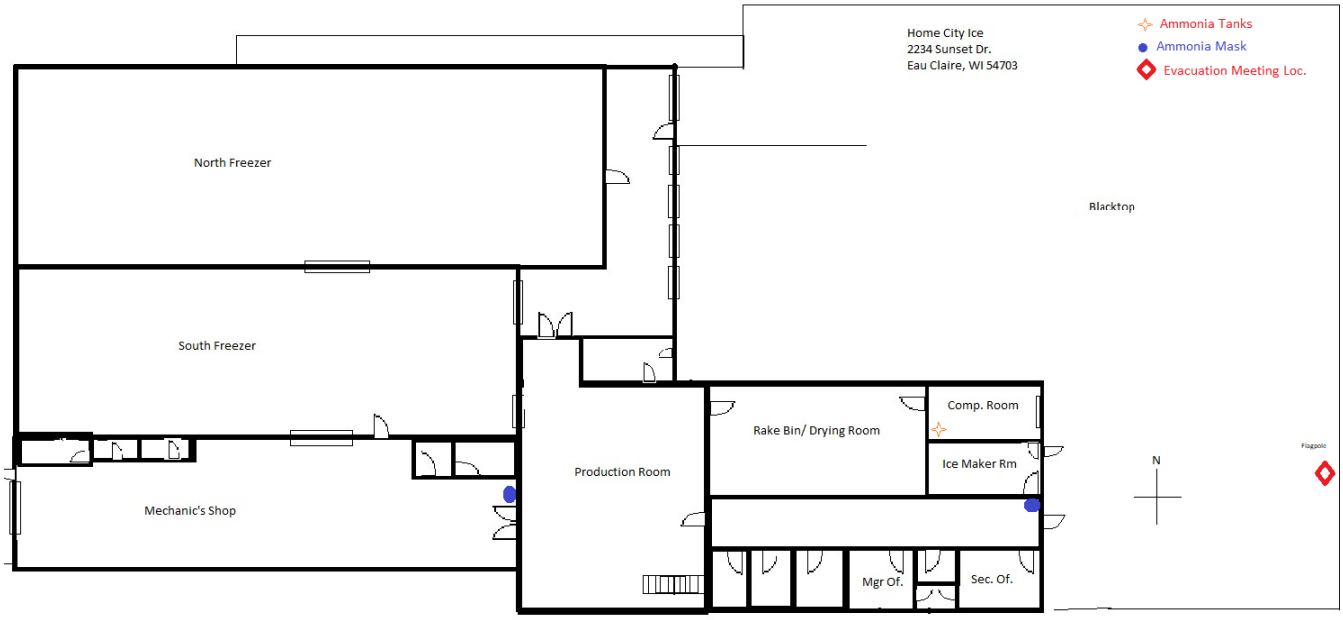
Roles and responsibilities relative to evacuation and sheltering may be found in the County EOP, ESF 1 and ESF 6.

SECTION VII: SPECIAL CONSIDERATIONS

A. POTENTIAL FOR AFFECTING OTHER JURISDICTIONS

The vulnerability zone is greater than 10 miles and extends outside of Eau Claire County into Chippewa and Dunn County(ies). Eau Claire County Emergency Management will notify, in writing, all counties affected that a particular section of their jurisdiction falls within the vulnerability of that planning facility. A copy of the plan, after it has been accepted by Wisconsin Emergency Management (WEM), will be provided to the County Emergency Management Offices of those counties that are affected by the facility's vulnerability zone.

SECTION VIII: SITE PLAN MAP

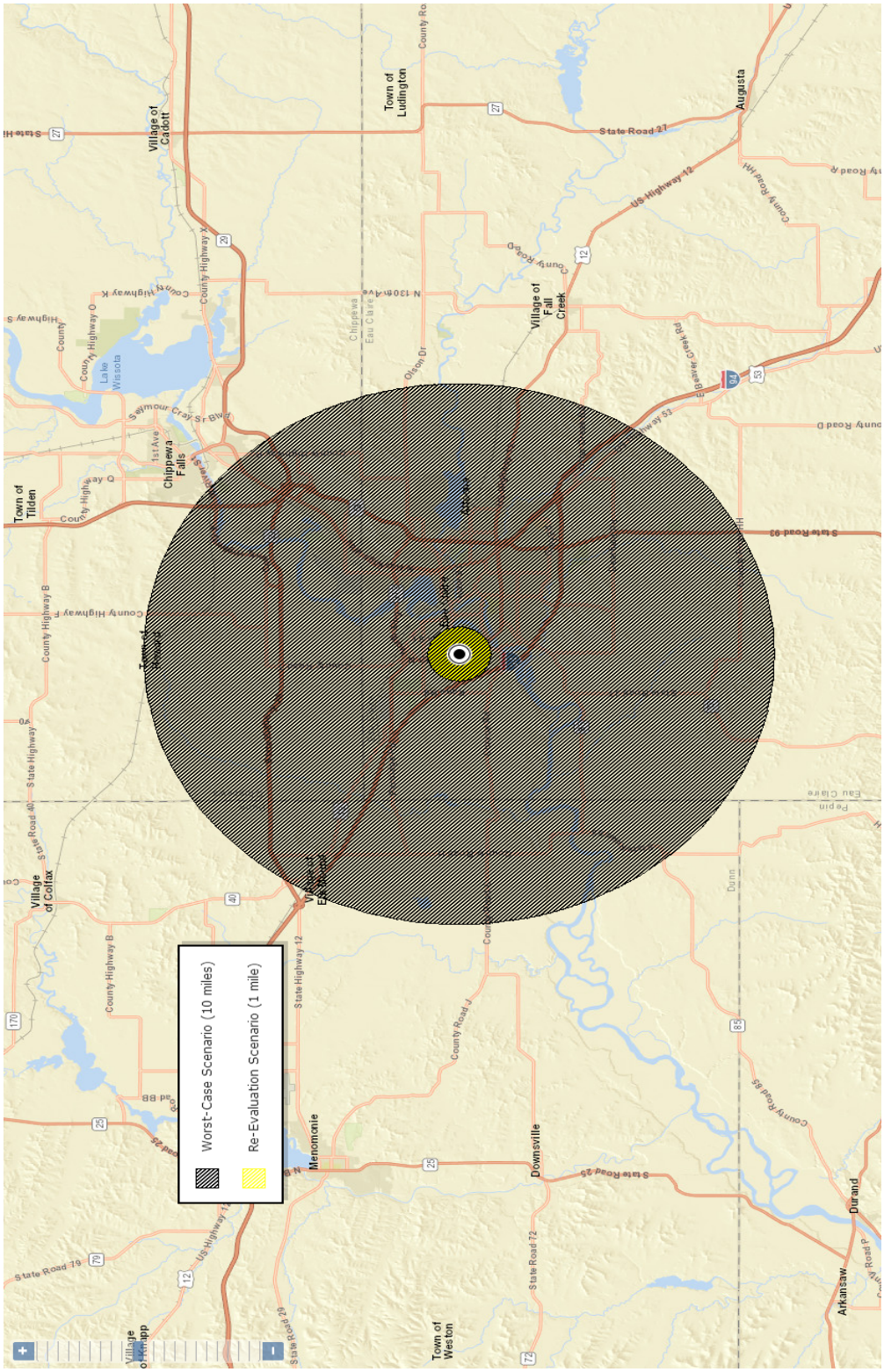


SECTION IX: DISTRIBUTION LIST

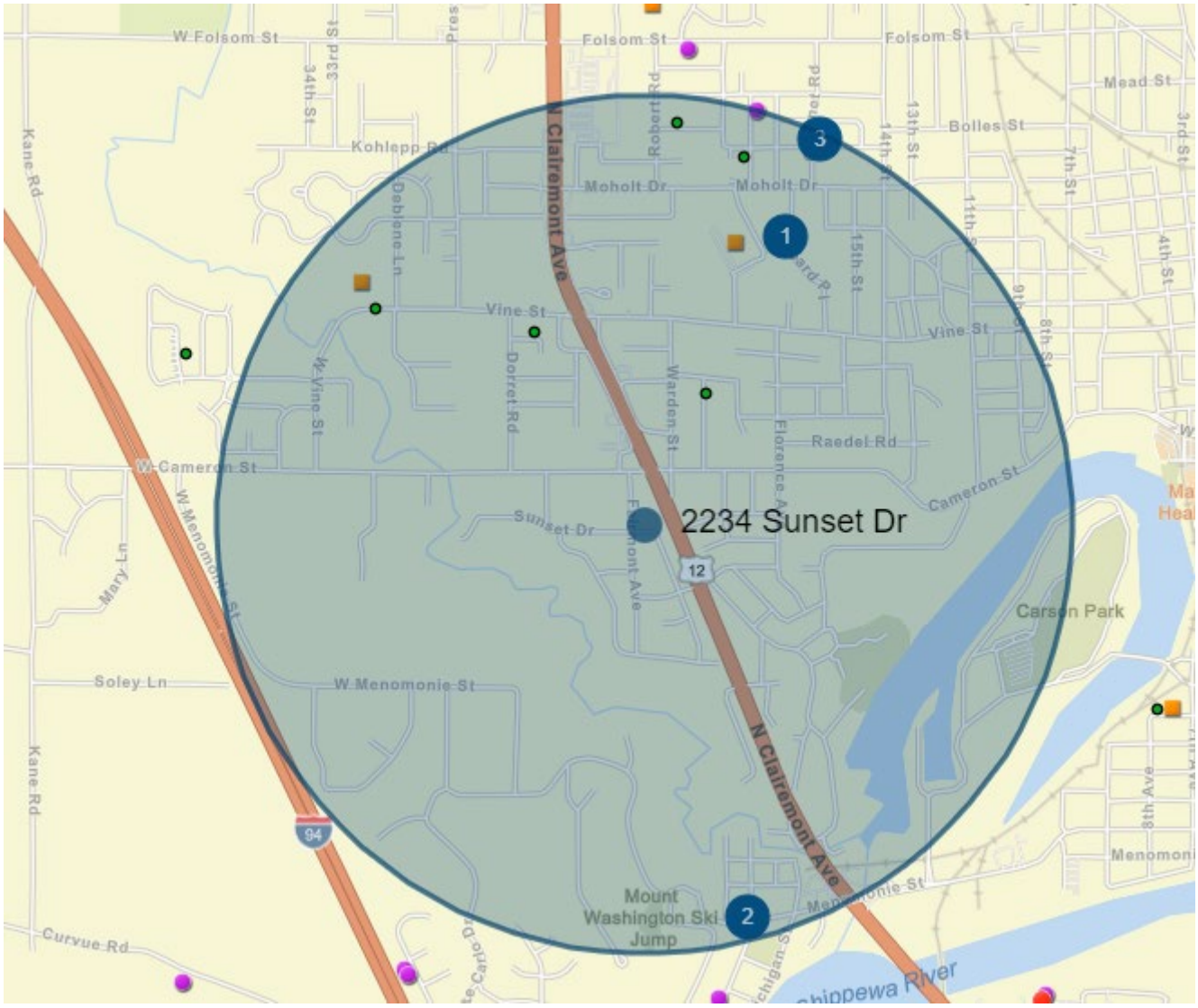
Facility
Eau Claire Fire Department
Wisconsin Emergency Management West Central Regional Office
Eau Claire Fire Department Hazmat
Eau Claire County Emergency Management Office
Adjacent County Emergency Management Office

SECTION X: ATTACHMENTS

Attachment 1: Vulnerability Zone Maps



Vulnerability Zone Map of Identified Affected Special Facilities (1 Mile Re-evaluation Scenario)



Attachment 2: MSDS Data Sheets

MATERIAL SAFETY DATA SHEET
ANHYDROUS AMMONIA

TI

DISTRIBUTORS:

TANNER INDUSTRIES, INC.

DIVISIONS:

NATIONAL AMMONIA	NORTHEASTERN AMMONIA
HAMLER INDUSTRIES	BOWER AMMONIA & CHEMICAL

735 Davisville Road, Third Floor, Southampton, PA 18966; 215-322-1238

CORPORATE EMERGENCY TELEPHONE NUMBER: 800-643-6226 CHEMTREC: 800-424-9300

DESCRIPTION

CHEMICAL NAME: Ammonia, Anhydrous **CAS REGISTRY NO**: 7664-41-7
SYNONYMS: Ammonia **CHEMICAL FAMILY**: Inorganic Nitrogen Compound
FORMULA: NH_3 **MOL. WT**: 17.03 (NH_3) **COMPOSITION**: 99+% Ammonia

STATEMENT OF HEALTH HAZARD

HAZARD DESCRIPTION:
Ammonia is an irritant and corrosive to the skin, eyes, respiratory tract and mucous membranes. Exposure to liquid or rapidly expanding gases may cause severe chemical burns and frostbite to the eyes, lungs and skin. Skin and respiratory related diseases could be aggravated by exposure.

Not recognized by OSHA as a carcinogen.
Not listed in the National Toxicology Program.
Not listed as a carcinogen by the International Agency for Research on Cancer.

EXPOSURE LIMITS FOR AMMONIA: Vapor

OSHA	50 ppm,	35 mg / m^3 PEL	8 hour TWA
NIOSH	35 ppm,	27 mg / m^3 STEL	15 minutes
	25 ppm,	18 mg / m^3 REL	10 hour TWA
	300 ppm,	IDLH	
ACGIH	25 ppm,	18 mg / m^3 TLV	8 hour TWA
	35 ppm,	27 mg / m^3 STEL	15 minutes

TOXICITY: LD 50 (Oral / Rat) 350 mg / kg

PHYSICAL DATA

BOILING POINT: -28°F at 1 Atm.
PH: N/A
SPECIFIC GRAVITY OF GAS (air = 1): 0.596 at 32°F
SPECIFIC GRAVITY OF LIQUID (water = 1): 0.682 at -28°F (Compared to water at 39°F).
PERCENT VOLATILE: 100% at 212°F
APPEARANCE AND ODOR: Colorless liquid or gas with pungent odor.
CRITICAL TEMPERATURE: 271.4 °F
GAS SPECIFIC VOLUME: 20.78 Ft^3/Lb at 32°F and 1 Atm.

VAPOR DENSITY: 0.0481 Lb/Ft^3 at 32° F
LIQUID DENSITY: 38.00 Lb/Ft^3 at 70° F
APPROXIMATE FREEZING POINT: -108°F
WEIGHT (per gallon): 5.15 pounds at 60° F
VAPOR PRESSURE: 114 psig at 70° F
SOLUBILITY IN WATER (per 100 pounds of water): 86.9 pounds at 32°F, 51 pounds at 68°F
SURFACE TENSION: 23.4 Dynes / cm at 52°F
CRITICAL PRESSURE: 111.5 atm

EMERGENCY TREATMENT

EFFECTS OF OVEREXPOSURE:

Eye: Tearing, edema or blindness may occur.

Skin: Irritation, corrosive burns, blister formation may result. Contact with liquid may produce a caustic burn and frostbite.

Inhalation: Acute exposure may result in severe irritation of the respiratory tract, bronchospasm, pulmonary edema or respiratory arrest.

Ingestion: Lung irritation and pulmonary edema may occur. ***Extreme exposure may result in death from spasm, inflammation or edema. Brief inhalation exposure to 5,000 ppm may be fatal.***

EMERGENCY AID: Remove patient to uncontaminated area.

Eye: Flush with copious amounts of tepid water for a minimum of 20 minutes. Eyelids should be held apart and away from eyeball for thorough rinsing.

Skin: Flush with copious amounts of tepid water for a minimum of 20 minutes while removing contaminated clothing, jewelry and shoes. Do not rub or apply ointment on affected area. Clothing may initially freeze to skin. Thaw frozen clothing from skin before removing.

Inhalation: Remove to fresh air. If not breathing, administer artificial respiration. If trained to do so, administer supplemental oxygen, if required.

Ingestion: If conscious, give large amounts of water to drink. May drink orange juice, citrus juice or diluted vinegar (1:4) to counteract ammonia. If unconscious, do not give anything by mouth. **Do not induce vomiting!**

SEEK IMMEDIATE MEDICAL HELP FOR ALL EXPOSURES!

***NOTE TO PHYSICIAN*: Respiratory injury may appear as a delayed phenomenon. Pulmonary edema may follow chemical bronchitis. Supportive treatment with necessary ventilation actions, including oxygen, may warrant consideration.**

FIRE AND EXPLOSION HAZARD DATA

FLASHPOINT: None.

FLAMMABLE LIMITS IN AIR: LEL/UEL 16% to 25%.(listed in the *NIOSH Pocket Guide to Chemical Hazards* 15% to 28%).

EXTINGUISHING MEDIA: Dry Chemical, CO_2, water spray or alcohol-resistant foam if gas flow cannot be stopped.

AUTO IGNITION TEMPERATURE: 1,204°F (If catalyzed). 1,570°F (If un-catalyzed).

SPECIAL FIRE-FIGHTING PROCEDURES:

Must wear protective clothing and a positive pressure SCBA. Stop source if possible. If a portable container (such as a cylinder or trailer) can be moved from the fire area without risk to the individual, do so to prevent the pressure relief valve of the trailer from discharging or the cylinder from rupturing. Fight fires using dry chemical, carbon dioxide, water spray or alcohol-resistant foam. Cool fire exposed containers with water spray. Stay upwind when containers are threatened. Use water spray to knock down vapor and dilute.

UNUSUAL FIRE AND EXPLOSION HAZARDS:

Outdoors, ammonia is not generally a fire hazard. Indoors, in confined areas, ammonia may be a fire hazard, especially if oil and other combustible materials are present. Combustion may form toxic nitrogen oxides.

If relief valves are inoperative, heat exposed storage containers may become explosion hazards due to over pressurization.

CHEMICAL REACTIVITY

STABILITY:

Stable at room temperature. Heating a closed container above room temperature causes vapor pressure to increase rapidly. Anhydrous ammonia will react exothermically with acids and water. Will not polymerize.

CONDITIONS TO AVOID:

Anhydrous ammonia has potentially explosive reactions with strong oxidizers. Anhydrous ammonia forms explosive mixtures in air with hydrocarbons, chlorine, ethanol, fluorine and silver nitrate. Anhydrous ammonia reacts to form explosive products, mixtures or compounds with mercury, gold, silver, iodine, bromine and silver oxide. Avoid anhydrous ammonia contact with chlorine, which forms a chloramine gas, which is a primary skin irritant and sensitizer. Avoid anhydrous ammonia contact with galvanized surfaces, copper, brass, bronze, aluminum alloys, mercury, gold and silver. A corrosive reaction will occur.

HAZARDOUS DECOMPOSITION PRODUCTS:

Anhydrous ammonia decomposes to hydrogen and nitrogen gases above 450°C (842°F). Decomposition temperatures may be lowered by contact with certain metals, such as iron, nickel and zinc and by catalytic surfaces such as porcelain and pumice.

EMERGENCY TREATMENT

EFFECTS OF OVEREXPOSURE:

Eye: Tearing, edema or blindness may occur.

Skin: Irritation, corrosive burns, blister formation may result. Contact with liquid may produce a caustic burn and frostbite.

Inhalation: Acute exposure may result in severe irritation of the respiratory tract, bronchospasm, pulmonary edema or respiratory arrest.

Ingestion: Lung irritation and pulmonary edema may occur. ***Extreme exposure may result in death from spasm, inflammation or edema. Brief inhalation exposure to 5,000 ppm may be fatal.***

EMERGENCY AID: Remove patient to uncontaminated area.

Eye: Flush with copious amounts of tepid water for a minimum of 20 minutes. Eyelids should be held apart and away from eyeball for thorough rinsing.

Skin: Flush with copious amounts of tepid water for a minimum of 20 minutes while removing contaminated clothing, jewelry and shoes. Do not rub or apply ointment on affected area. Clothing may initially freeze to skin. Thaw frozen clothing from skin before removing.

Inhalation: Remove to fresh air. If not breathing, administer artificial respiration. If trained to do so, administer supplemental oxygen, if required.

Ingestion: If conscious, give large amounts of water to drink. May drink orange juice, citrus juice or diluted vinegar (1:4) to counteract ammonia. If unconscious, do not give anything by mouth. **Do not induce vomiting!**

SEEK IMMEDIATE MEDICAL HELP FOR ALL EXPOSURES!

***NOTE TO PHYSICIAN*: Respiratory injury may appear as a delayed phenomenon. Pulmonary edema may follow chemical bronchitis. Supportive treatment with necessary ventilation actions, including oxygen, may warrant consideration.**

FIRE AND EXPLOSION HAZARD DATA

FLASHPOINT: None.

FLAMMABLE LIMITS IN AIR: LEL/UEL 16% to 25%.(listed in the *NIOSH Pocket Guide to Chemical Hazards* 15% to 28%).

EXTINGUISHING MEDIA: Dry Chemical, CO_2, water spray or alcohol-resistant foam if gas flow cannot be stopped.

AUTO IGNITION TEMPERATURE: 1,204°F (If catalyzed). 1,570°F (If un-catalyzed).

SPECIAL FIRE-FIGHTING PROCEDURES:

Must wear protective clothing and a positive pressure SCBA. Stop source if possible. If a portable container (such as a cylinder or trailer) can be moved from the fire area without risk to the individual, do so to prevent the pressure relief valve of the trailer from discharging or the cylinder from rupturing. Fight fires using dry chemical, carbon dioxide, water spray or alcohol-resistant foam. Cool fire exposed containers with water spray. Stay upwind when containers are threatened. Use water spray to knock down vapor and dilute.

UNUSUAL FIRE AND EXPLOSION HAZARDS:

Outdoors, ammonia is not generally a fire hazard. Indoors, in confined areas, ammonia may be a fire hazard, especially if oil and other combustible materials are present. Combustion may form toxic nitrogen oxides.

If relief valves are inoperative, heat exposed storage containers may become explosion hazards due to over pressurization.

CHEMICAL REACTIVITY

STABILITY:

Stable at room temperature. Heating a closed container above room temperature causes vapor pressure to increase rapidly. Anhydrous ammonia will react exothermically with acids and water. Will not polymerize.

CONDITIONS TO AVOID:

Anhydrous ammonia has potentially explosive reactions with strong oxidizers. Anhydrous ammonia forms explosive mixtures in air with hydrocarbons, chlorine, ethanol, fluorine and silver nitrate. Anhydrous ammonia reacts to form explosive products, mixtures or compounds with mercury, gold, silver, iodine, bromine and silver oxide. Avoid anhydrous ammonia contact with chlorine, which forms a chloramine gas, which is a primary skin irritant and sensitizer. Avoid anhydrous ammonia contact with galvanized surfaces, copper, brass, bronze, aluminum alloys, mercury, gold and silver. A corrosive reaction will occur.

HAZARDOUS DECOMPOSITION PRODUCTS:

Anhydrous ammonia decomposes to hydrogen and nitrogen gases above 450°C (842°F). Decomposition temperatures may be lowered by contact with certain metals, such as iron, nickel and zinc and by catalytic surfaces such as porcelain and pumice.

LABELING AND SHIPPING

HAZARD CLASS: (US Domestic): 2.2 (Non-Flammable Gas) (International): 2.3 (Poison Gas) subsidiary 8 (Corrosive)

PROPER SHIPPING DESCRIPTION:

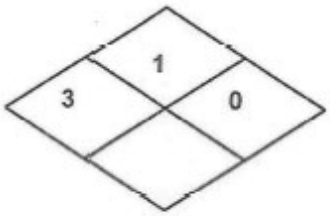
(US Domestic): Ammonia, Anhydrous, 2.2, UN1005, RQ, Inhalation Hazard
(International): Ammonia, Anhydrous, 2.3, (8), UN1005, RQ, Poison-Inhalation Hazard Zone "D"

PLACARD:

(US Domestic): Non-Flammable Gas
(International): Poison Gas, Corrosive (Subsidiary)

IDENTIFICATION NUMBER: UN 1005

National Fire Protection Assoc. Hazardous Rating:



Hazardous Materials Identification System Labels:

ANHYDROUS AMMONIA	
HEALTH	3
FLAMMABILITY	1
REACTIVITY	0
PERSONAL PROTECTION	H

OTHER REGULATORY REQUIREMENTS

Under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), Section 103, any environmental release of this chemical equal to or over the reportable quantity of 100 lbs. must be reported promptly to the National Response Center, Washington, D.C. (1-800-424-8802).

The material is subject to the reporting requirements of Section 304, Section 312 and Section 313, Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986 and 40 CFR 372. Emergency Planning & Community Right to Know Act, (EPCRA) extremely hazardous substance, 40 CFR 355, Title III, Section 302 – Ammonia, Threshold Planning Quantity (TPQ) 500 lbs.

EPA Hazard Categories - Immediate: Yes; Delayed: No; Fire: No; Sudden Release: Yes; Reactive: No.

Clean Air Act – Section 112(r): Material is listed under EPA's Risk Management Program (RMP), 40 CFR Part 68, at storage/process amounts greater than the Threshold Quantity (TQ) of 10,000 lbs.

DISCLAIMER

The information, data, and recommendations in this material safety data sheet relate only to the specific material designated herein and do not relate to use in combination with any other material or in any process. The information, data, and recommendations set forth herein are believed by us to be accurate. We make no warranties, either expressed or implied, with respect thereto and assume no liability in connection with any use of such information, data, and recommendations.

Attachment 3: Vulnerability Zone Calculations

Facility Name: Home City Ice, Eau Claire Report Year: 2023 City: Eau Claire State: WI

Chemical Name: Ammonia (anhydrous) CAS Number: 7664-41-7

Screening Name: Ammonia/Worst Case

Screening Description

Amount Released	4,500	pounds
Concentration	100	% by weight
Release Duration	10	minutes
Physical State	(•) Gas ( ) Liquid ( ) Solid	
Surface area within dike		sq ft (enter a value only if stored in a container with a dike)
Atmospheric Concentration Level of Concern	0.035	gm/m^3

Matches the EPA Green Book LOC value for this chemical.

Weather Information

Wind Speed	3.35	mph
Ground Roughness	Open Country	
Stability Class	F	

Risk Assessment

Risk		Probability of described accident occurring
Consequences		Severity of consequences to people
Overall Risk		Combination of probability and severity of consequences

Estimate Threat Zone Radius Threat Zone Radius > 10 miles Show on Map

Facility Name: Home City Ice, Eau Claire Report Year: 2023 City: Eau Claire State: WI

Chemical Name: Ammonia (anhydrous) CAS Number: 7664-41-7

Scenario Name: Ammonia/Reevaluation

Scenario Description

Amount Released	4,500	pounds
Concentration	100	% by weight
Release Duration	10	minutes
Physical State	(•) Gas ( ) Liquid ( ) Solid	
Surface area within dike		sq ft (enter a value only if stored in a container with a dike)
Atmospheric Concentration Level of Concern	0.035	gm/m^3

Matches the EPA Green Book LOC value for this chemical.

Weather Information

Wind Speed	11.9	mph
Wind From		degrees clockwise from 0 N (for example 45 means wind from NE)
Ground Roughness	Open Country	
Stability Class	D	

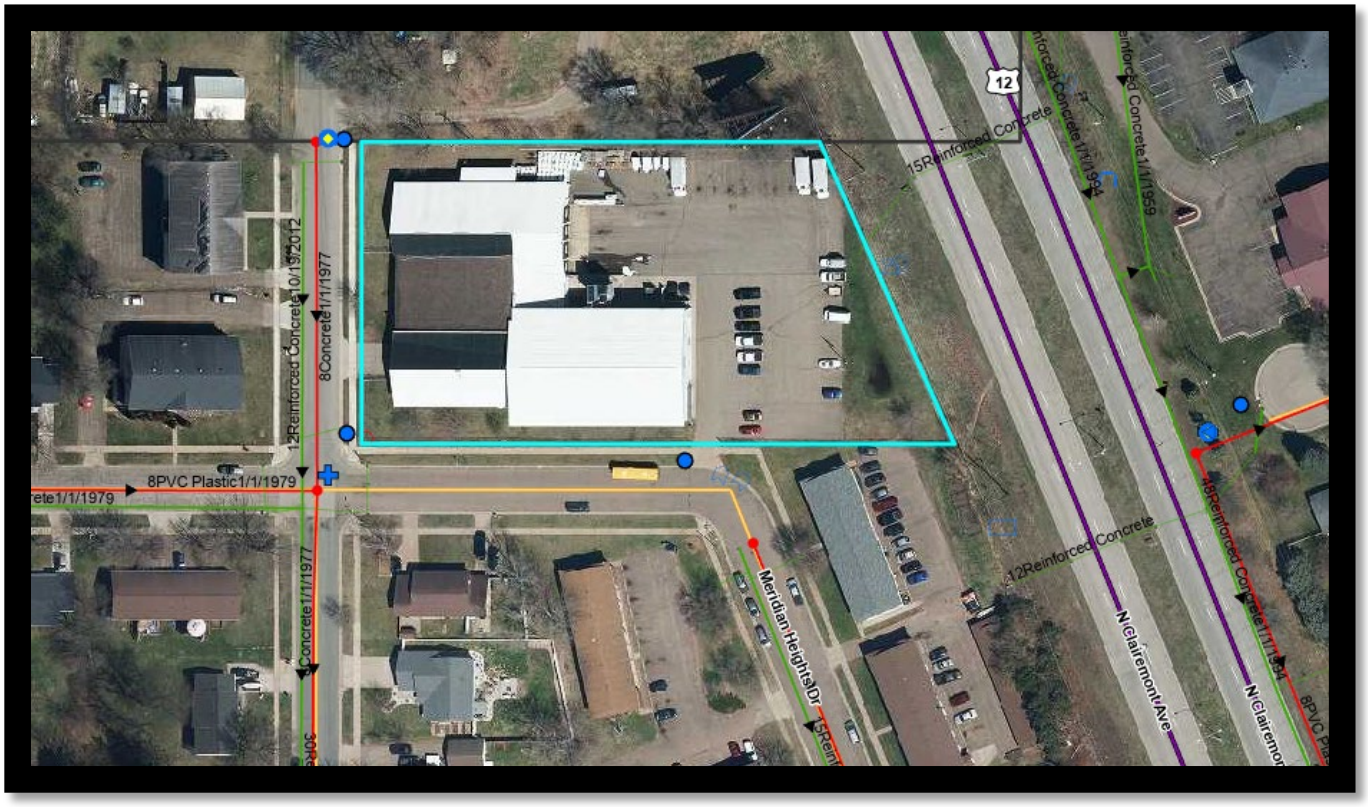
Risk Assessment

Risk		Probability of described accident occurring
Consequences		Severity of consequences to people
Overall Risk		Combination of probability and severity of consequences

Estimate Threat Zone Radius Threat Zone Radius 1.0 miles Show on Map

Attachment 4: Transportation Routes

Attachment 5: Sewer Map



Imperia Foods Inc. Fall Creek

Facility Off-Site

Emergency Response Plan

Facility #201310
Imperia Foods Inc. Fall Creek
120 Brickyard St
Fall Creek, Wisconsin 54742

Eau Claire County
Office of Emergency Management
721 Oxford Avenue, Suite 3344
Eau Claire, Wisconsin 54703

TABLE OF CONTENTS

SECTION 1: FACILITY INFORMATION

A. FACILITY LOCATION

Schuman Cheese
d/b/a Imperia Foods, Inc.
120 Brickyard Street
Fall Creek, Wisconsin 54742

B. FACILITY ID

201310

C. EMERGENCY CONTACTS

Primary:
Tim Allen
Phone: 715-559-9484
24 Hour: 715-559-9484
timallen@schumancheese.com

Secondary:
Samantha Erickson
Phone: 715-318-6480
24 Hour: 715-828-8145
serickson@schumancheese.com

D. ACCESS TO FACILITY

The local fire department has keys to the facility to gain access.

E. CHEMICALS ON SITE: EXTREMELY HAZARDOUS SUBSTANCES (EHS)

Ammonia Chemical ID: 420155 CAS: 7664417 **ERG: Guide 125**	**Inventory:** Max Daily Amount (lbs): 9856 Ave. Daily Amount (lbs): 9856 Number of days on site: 365	**Storage:** Container: Above Ground Tank Location: Ammonia Room SW corner of plant, segregated from rest of plant. May be piped to the evaporator unit.

F. HAZARDOUS SUBSTANCES

Carbon Dioxide Chemical ID: 420154 CAS: 124389 **ERG: Guide 120**	Inventory: Max Daily Amount (lbs): 4400 Ave. Daily Amount (lbs): 4000 Number of days on site: 365	**Storage:** Container: Above Ground Tank Location: Outside Building East Side

SECTION II: EMERGENCY RESPONSE

A. PRIMARY RESPONSE AGENCIES

- Fall Creek Police Department 715-877-3231
- Fall Creek Area Fire District 715-834-6868
- Eau Claire Fire Department EMS 715-839-5013
- Eau Claire County Emergency Management 715-829-8499

B. HAZARDOUS MATERIALS RESPONSE TEAM

Eau Claire County has a Level B Hazardous Materials Response Team. For Level B response, the local Fire Chief notifies the Level B team of a response needed through the Eau Claire County Emergency Communications Center. For Level A responses by the Level A Regional Hazardous Materials Response Team, requests shall be made through the WEM Duty officer by the County Emergency Management Coordinator.

C. SUPPORT AND RESOURCES AVAILABLE FROM FACILITY

Imperia Foods does not maintain any personal protective equipment on-site in the event of a leak. They have a contract in place with a vendor to clean up leaks and plan to utilize emergency services as needed. There are ammonia monitors and an auto dialer in place to notify the Maintenance Manager in the event a monitor is tripped. The Maintenance Manager is able to remotely log in as needed.

SECTION III: GENERAL INFORMATION AND ASSUMPTIONS

The vulnerability zones set forth in the Plan are based on the EPA Technical Guidance for Hazards Analysis. The zones are based on a credible worst-case scenario and identify the potential area for impact should an air-borne release of a single EHS chemical occur.

The vulnerability zones are NOT intended to be used as a guide for population protection in fire-related incidents. Fire incidents were considered in the development of this plan and the plan provides basic information about the facility for first responders to employ. However, in an actual fire situation at this facility, the Incident commander is strongly recommended to reference the fire department own individual agency pre-emergency plans and standard operating procedures as well as the County's Emergency Operations Plan (EOP) – Emergency Support Function (ESF) 4: Firefighting, as they may relate to this facility when making decisions at an incident involving fire.

Further, fire departments that would respond to an incident at this facility are strongly encouraged to meet with facility representatives to determine ways to minimize an event at the facility and to determine what additional information and factors should be taken into consideration in the event of a fire, should one occur.

The field incident commander shall determine the actual response to an incident and the affected area may vary from the planning vulnerability zone identified in this Plan. Depending on wind speed and direction, the amount of material released and other pertinent factors, the ACTUAL vulnerability zone may be smaller, and in some instances larger, than the credible worst-case vulnerability zone identified herein.

The vulnerability zones determined in the Plan are for general PLANNING PURPOSES.

SECTION IV: HAZARD ANALYSIS

Imperia Foods is a national importer of cheeses, primarily from Italy. There are an average of forty (40) employes on the site each shift from Sunday night – Saturday night. During the day, there will likely be closer to fifty (50) employees on site. The size of the building is 54,208 square feet. EHS utilized/stored at the facility is Anhydrous Ammonia.

Anhydrous Ammonia

Anhydrous ammonia is used by Imperia Foods for the cooling of food products that are warehoused at the facility. The chemical is located in the southwest corner of the plant, separate from the rest of the plant. Piping for the Anhydrous Ammonia is located above the roof of the building leading to the evaporators and minimally inside the building. There are two exhaust fans in the motor room that will turn on automatically to disperse any system release of Anhydrous Ammonia. A leak of Anhydrous Ammonia in the main containment area would be detected by equipment that is monitored by on-site monitors (see Section VII.A: Note 1). If a leak were to be detected the monitors would alert company personnel so they could take appropriate action. On site, strobes and siren announce the detected release of a chemical.

The facility reports 9,856 pounds of Anhydrous Ammonia on site. The largest containment of Anhydrous Ammonia in the cooling system is the receiver (2,464 lbs.). The greatest potential for release would be the failure of "receiver units" which contain the greatest volume of material. Anhydrous Ammonia is delivered to the facility by truck. The maximum shipment is 2,500 pounds (see Section VII.A: Note 2). This is the amount of material used in the worst-case scenario.

Based on the total amount of anhydrous ammonia on site, the evacuation area is estimated to be greater than 6.3 miles using the scenario criteria listed below. The impact area would encompass the city of Fall Creek and affect approximately 4,722 people (1,901 housing units) according to the CAMEO modeling tool. According to FEMA's Resilience Analysis and Planning Tool as many as 272 households in this area do not have a vehicle and 1,119 households are without a smartphone.

The worst-case scenario criteria are:

- Neutral Air Stability (Class F)
- Night Time
- Open Country
- 3.35 mph wind
- 1/10 IDLH (Immediately Dangerous to Life and Health) concentration
- Rapid release of maximum quantity of chemical in a single vessel (10 min.)

Using the re-evaluation criteria listed below, the evacuation area for a release of 2,500 pounds of anhydrous ammonia is 0.7 miles. The impact area would affect approximately 582 (232 housing units) according to the CAMEO modeling tool. According to FEMA's Resilience Analysis and Planning Tool as many as 1 household in this area does not have a vehicle and 9 households are without a smartphone.

The reevaluation scenario criteria are:

- Neutral Air Stability (Class D)
- Open Country
- 11.9 mph wind
- 1/10 IDLH (Immediately Dangerous to Life and Health) concentration

SECTION V: SPECIAL FACILITIES AFFECTED

Special facilities (hospitals, nursing homes, schools, day care centers, correctional facilities, and other high population facilities with limited transportation) within the re-evaluation scenario are listed below and are identified on the required vulnerability zone map located in Attachment A.

Facility Name	Address	Phone	Capacity
Everything's Better at Grandma's Family Childcare	2900 Elmer Ct, Fall Creek, WI 54742	715-895-8195	3
Fall Creek High	336 E Hoover Ave, Fall Creek, WI 54742	715-877-2809	229
Fall Creek Residence 8	124 N Liberty St, Fall Creek, WI 54742	715-877-1238	4
Mama Bear Childcare	S6950 Morning Crest Dr, Augusta, WI 54722	715-590-2513	8
Palmer Place Fall Creek	206 S State St, Fall Creek, WI 54742	715-225-0268	4
St Paul's Little Lambs CC Preschool	721 S State St, Fall Creek, WI 54742	715-877-3501	50

SECTION VI: POPULATION PROTECTION

A. SHELTER-IN-PLACE

The determination to shelter in place or to evacuate will be made by the on-scene commander as appropriate. The lead time for a hazardous materials incident may be very short. As a result, there may not be time enough for safe evacuation, especially when extremely toxic chemical fumes are involved. An evacuation under these considerations may expose the population to dangerous toxic chemicals and the decision may be made to shelter-in-place. Preferred areas for protective sheltering would be interior hallways, rooms without windows or exterior doors, enclosed stairways, and rooms on the side of the building away from where the hazard is approaching. Doors, windows, and other potential air leaks should be sealed up to prevent toxic fumes from entering.

B. EVACUATION

Experience indicated that shelter space would need to be provided for only 30% of the population within the initial isolation and evacuation zones and the remaining 70% would seek shelter with family and friends outside the risk zone. All public schools listed are eligible evacuation shelters.

SECTION VII: SPECIAL CONSIDERATIONS

A. ACTUAL RESPONSE CAPABILITIES AT FACILITY

Note 1: There are two exhaust fans in the motor room that will turn on automatically to disperse any system release of Anhydrous Ammonia. A leak of Anhydrous Ammonia in the main containment area would be detected by equipment that is monitored by on-site monitors.

All evaporators are located inside except the one that is located inside of the air makeup unit.

Available safety devices on the system:

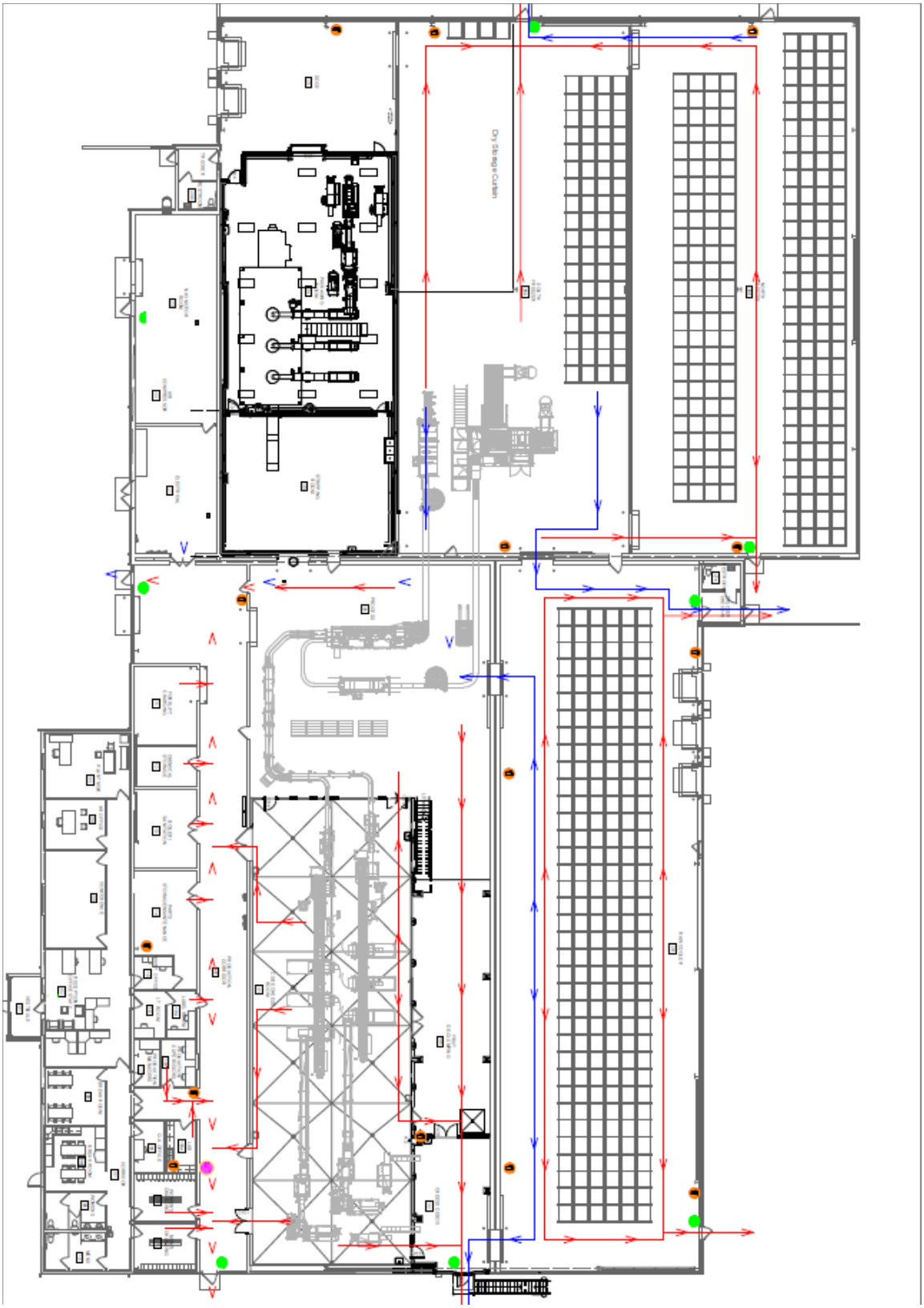
1. Ammonia monitors in the following areas:
    a. Main compressor room
    b. Finish Cooler (southwest cooler)
    c. Freezer (northwest cooler)
    d. Raw Cooler (northeast cooler)
    e. Process AMU
2. System automatically shuts down if ammonia sensors are tripped and the Maintenance Manager is contacted.
3. Fans and louvers are automatically turned on and evacuate the air in the compressor room through the roof.
4. Ammonia system control/system warning box on the outside of the compressor room. Items that can be controlled from there are:
    a. Emergency stop for whole system. (Under glass. Glass needs to be broken to get to it with the small hammer that is hanging on the box).
    b. Fault lights:
        i. Red for system fault
        ii. Amber for ammonia leak
        iii. Auditable alarm
    c. Ability to turn motor room exhaust fans on.
    d. Ability to silence the audible alarm.
    e. Indicator lights for the exhaust fans.
5. Emergency backup generator:
    a. Auto-switches to generator power if grid goes down.
    b. Powers ammonia system, lighting, and communications for the whole plant.

Note 2: The facility system is a closed loop system, meaning there is no gain or loss of ammonia. Ammonia would only ever need to be added if the system had been expanded or a major leak had been experienced at the facility.

B. POTENTIAL FOR AFFECTING OTHER JURISDICTIONS

Not applicable: The vulnerability zone is 6.3 miles and located within Eau Claire County.

SECTION VIII: SITE PLAN MAP



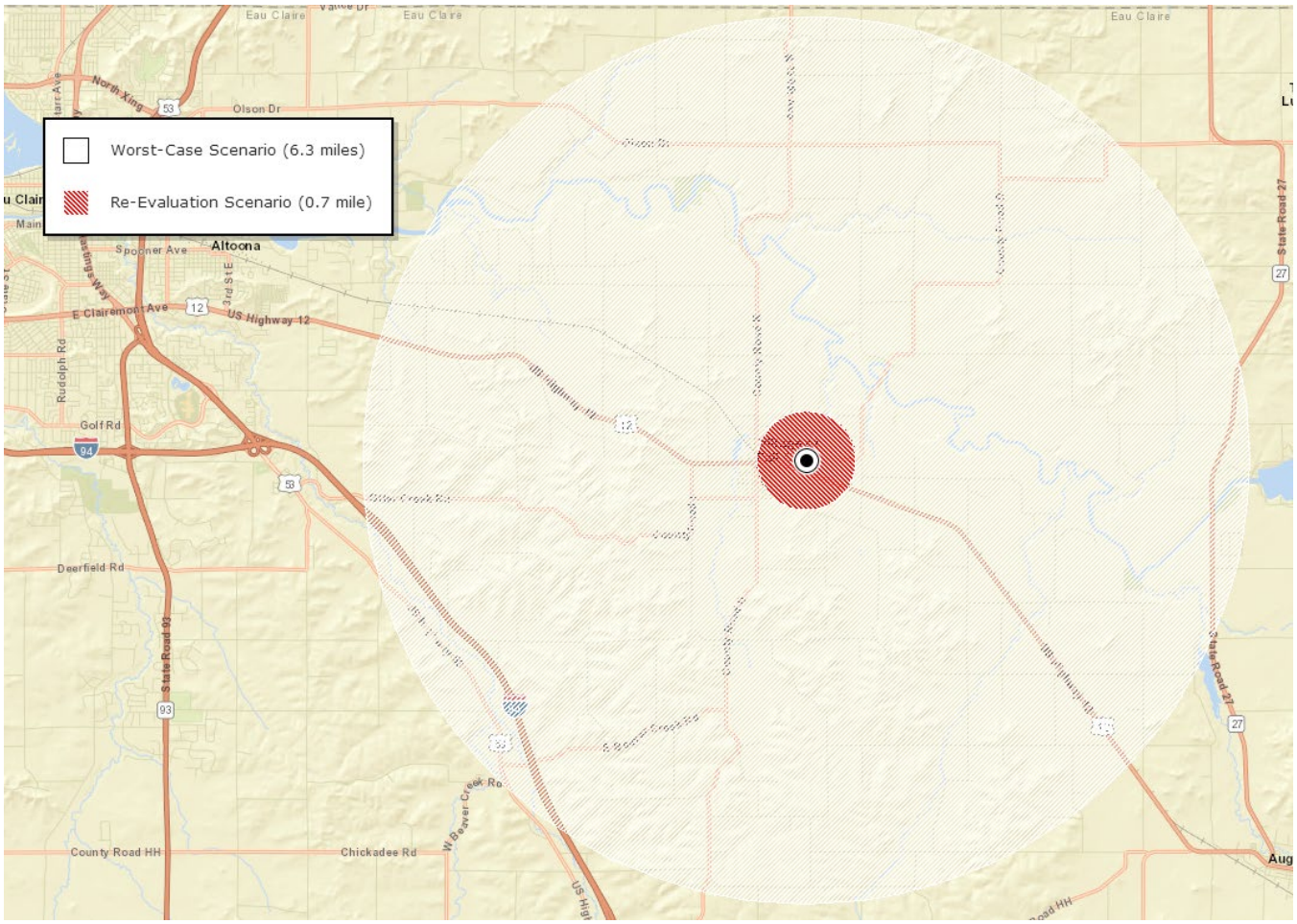
SECTION IX: DISTRIBUTION LIST

Facility
Fall Creek Area Fire District
Wisconsin Emergency Management West Central Regional Office
Eau Claire Fire Department Hazmat
Eau Claire County Emergency Management Office
Adjacent County Emergency Management Office

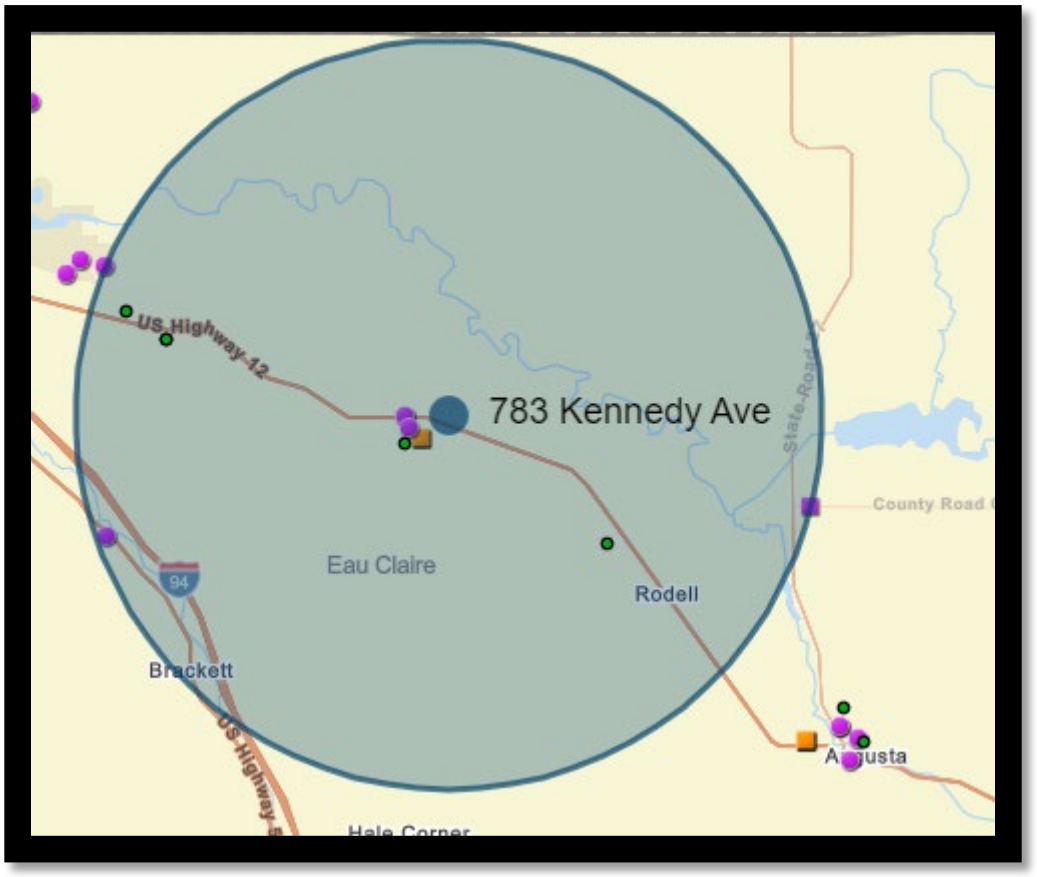
SECTION X: ATTACHMENTS

Attachment 1: Vulnerability Zone Maps

Anhydrous Ammonia



Vulnerability Zone Map of Identified Affected Special Facilities (0.7 Mile Re-evaluation Scenario)



Attachment 2: SDS Data Sheets

SAFETY DATA SHEET

Ammonia

Airgas
an Air Liquide company

Section 1. Identification

GHS product identifier : Ammonia

Chemical name : ammonia, anhydrous

Other means of identification : ammonia; anhydrous ammonia; Aqueous ammonia; Aqua ammonia

Product use : Synthetic/Analytical chemistry.

Synonym : ammonia; anhydrous ammonia; Aqueous ammonia; Aqua ammonia

SDS # : 001003

Supplier's details : Airgas USA, LLC and its affiliates
259 North Radnor-Chester Road
Suite 100
Radnor, PA 19087-5283
1-610-687-5253

24-hour telephone : 1-866-734-3438

Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture : FLAMMABLE GASES - Category 2
GASES UNDER PRESSURE - Liquefied gas
ACUTE TOXICITY (inhalation) - Category 4
SKIN CORROSION/IRRITATION - Category 1
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1
AQUATIC HAZARD (ACUTE) - Category 1

GHS label elements

Hazard pictograms :

Signal word : Danger

Hazard statements : Flammable gas.
Contains gas under pressure; may explode if heated.
May cause frostbite.
May form explosive mixtures in Air.
Harmful if inhaled.
Causes severe skin burns and eye damage.
Very toxic to aquatic life.

Precautionary statements

General : Read and follow all Safety Data Sheets (SDS'S) before use. Close valve after each use and when empty. Use equipment rated for cylinder pressure. Do not open valve until connected to equipment prepared for use. Use a back flow preventative device in the piping. Use only equipment of compatible materials of construction. Always keep container in upright position. Approach suspected leak area with caution.

Prevention : Wear protective gloves. Wear eye or face protection. Wear protective clothing. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use only outdoors or in a well-ventilated area. Avoid release to the environment. Avoid breathing gas. Wash hands thoroughly after handling.

Section 2. Hazards identification

Response : Collect spillage. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or physician. IF SWALLOWED: Immediately call a POISON CENTER or physician. Rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. Wash contaminated clothing before reuse. Immediately call a POISON CENTER or physician. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or physician. Leaking gas fire: Do not extinguish, unless leak can be stopped safely. Eliminate all ignition sources if safe to do so.

Storage : Store locked up. Protect from sunlight when ambient temperature exceeds 52°C/125°F. Store in a well-ventilated place.

Disposal : Dispose of contents and container in accordance with all local, regional, national and international regulations.

Hazards not otherwise classified : Liquid can cause burns similar to frostbite.

Section 3. Composition/information on ingredients

Substance/mixture : Substance

Chemical name : ammonia, anhydrous

Other means of identification : ammonia; anhydrous ammonia; Aqueous ammonia; Aqua ammonia

CAS number/other identifiers

CAS number : 7664-41-7

Product code : 001003

Ingredient name	%	CAS number
ammonia, anhydrous	100	7664-41-7

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact : Get medical attention immediately. Call a poison center or physician. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician.

Inhalation : Get medical attention immediately. Call a poison center or physician. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

Skin contact : Get medical attention immediately. Call a poison center or physician. Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. To avoid the risk of static discharges and gas ignition, soak contaminated clothing thoroughly with water before removing it. Continue to rinse for at least 10 minutes. In case of contact with liquid, warm frozen tissues slowly with lukewarm water and get medical attention. Do not rub affected area. Chemical burns must be treated promptly by a physician. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Section 4. First aid measures

Ingestion : Get medical attention immediately. Call a poison center or physician. Remove victim to fresh air and keep at rest in a position comfortable for breathing. Chemical burns must be treated promptly by a physician. Ingestion of liquid can cause burns similar to frostbite. If frostbite occurs, get medical attention. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. As this product rapidly becomes a gas when released, refer to the inhalation section.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact : Causes serious eye damage. Liquid can cause burns similar to frostbite.

Inhalation : Harmful if inhaled.

Skin contact : Causes severe burns. Dermal contact with rapidly evaporating liquid could result in freezing of the tissues or frostbite.

Frostbite : Try to warm up the frozen tissues and seek medical attention.

Ingestion : Ingestion of liquid can cause burns similar to frostbite.

Over-exposure signs/symptoms

Eye contact : Adverse symptoms may include the following:, pain, watering, redness, frostbite

Inhalation : No specific data.

Skin contact : Adverse symptoms may include the following:, pain or irritation, redness, blistering may occur, frostbite

Ingestion : Adverse symptoms may include the following:, frostbite, stomach pains

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

Specific treatments : No specific treatment.

Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media : Use an extinguishing agent suitable for the surrounding fire.

Unsuitable extinguishing media : None known.

Specific hazards arising from the chemical : Contains gas under pressure. Flammable gas. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. This material is very toxic to aquatic life. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

Hazardous thermal decomposition products : Decomposition products may include the following materials:
nitrogen oxides

Section 5. Fire-fighting measures

Special protective actions for fire-fighters : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Contact supplier immediately for specialist advice. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool. If involved in fire, shut off flow immediately if it can be done without risk. If this is impossible, withdraw from area and allow fire to burn. Fight fire from protected location or maximum possible distance. Eliminate all ignition sources if safe to do so.

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. For incidents involving large quantities, thermally insulated undergarments and thick textile or leather gloves should be worn.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : Accidental releases pose a serious fire or explosion hazard. No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Do not breathe gas. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders : If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Environmental precautions : Ensure emergency procedures to deal with accidental gas releases are in place to avoid contamination of the environment. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities. Collect spillage.

Methods and materials for containment and cleaning up

Small spill : Immediately contact emergency personnel. Stop leak if without risk. Use spark-proof tools and explosion-proof equipment.

Large spill : Immediately contact emergency personnel. Stop leak if without risk. Use spark-proof tools and explosion-proof equipment. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

Protective measures : Put on appropriate personal protective equipment (see Section 8). Contains gas under pressure. Do not get in eyes or on skin or clothing. Do not breathe gas. Avoid release to the environment. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Store and use away from heat, sparks, open flame or any other ignition source. Empty containers retain product residue and can be hazardous. Do not puncture or incinerate container. Use equipment rated for cylinder pressure. Close valve after each use and when empty. Protect cylinders from physical damage; do not drag, roll, slide, or drop. Use a suitable hand truck for cylinder movement.

Advice on general occupational hygiene : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Section 7. Handling and storage

Conditions for safe storage, including any incompatibilities : Store in accordance with local regulations. Store in a segregated and approved area. Store away from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10). Store locked up. Eliminate all ignition sources. Keep container tightly closed and sealed until ready for use. Cylinders should be stored upright, with valve protection cap in place, and firmly secured to prevent falling or being knocked over. Cylinder temperatures should not exceed 52 °C (125 °F).
Refer to ANSI/CGA G-2.1, Section 5.13 for electrical classification of anhydrous ammonia storage and handling areas. Where anhydrous ammonia is stored indoors, use electrical (ventilating, lighting and material handling) equipment with the appropriate electrical classification rating and use only non-sparking tools.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
ammonia, anhydrous	**ACGIH TLV (United States, 3/2015).** STEL: 24 mg/m³ 15 minutes. STEL: 35 ppm 15 minutes. TWA: 17 mg/m³ 8 hours. TWA: 25 ppm 8 hours. **NIOSH REL (United States, 10/2013).** STEL: 27 mg/m³ 15 minutes. STEL: 35 ppm 15 minutes. TWA: 18 mg/m³ 10 hours. TWA: 25 ppm 10 hours. **OSHA PEL (United States, 2/2013).** TWA: 35 mg/m³ 8 hours. TWA: 50 ppm 8 hours. **OSHA PEL 1989 (United States, 3/1989).** STEL: 27 mg/m³ 15 minutes. STEL: 35 ppm 15 minutes.

Appropriate engineering controls : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use ventilation equipment with the appropriate electrical classification rating.

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles and/or face shield. If inhalation hazards exist, a full-face respirator may be required instead.

Skin protection

Section 8. Exposure controls/personal protection

Hand protection : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. If contact with the liquid is possible, insulated gloves suitable for low temperatures should be worn. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Body protection : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.

Other skin protection : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection : Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Section 9. Physical and chemical properties

Appearance

Physical state : Gas. [Liquefied gas]

Color : Colorless.

Molecular weight : 17.03 g/mole

Molecular formula : H3-N

Boiling/condensation point : -33°C (-27.4°F)

Melting/freezing point : -77.7°C (-107.9°F)

Critical temperature : 132.85°C (271.1°F)

Odor : Pungent.

Odor threshold : Not available.

pH : Not available.

Flash point : Not available.

Burning time : Not applicable.

Burning rate : Not applicable.

Evaporation rate : Not available.

Flammability (solid, gas) : Extremely flammable in the presence of the following materials or conditions: oxidizing materials.

Lower and upper explosive (flammable) limits : Lower: 15%
Upper: 28%

Vapor pressure : 114.1 (psig)

Vapor density : 0.59 (Air = 1)

Specific Volume (ft^3/lb) : 22.7273

Gas Density (lb/ft^3) : 0.044

Relative density : Not applicable.

Solubility : Not available

Solubility in water : 540 g/l

Partition coefficient: n-octanol/water : Not available.

Auto-ignition temperature : 651°C (1203.8°F)

Decomposition temperature : Not available.

Section 9. Physical and chemical properties

SADT : Not available.

Viscosity : Not applicable.

Physical/chemical properties comments : SPECIFIC GRAVITY (AIR=1): @ 70°F (21.1°C) = 0.59
PH: Approx. 11.6 for 1 N Sol'n. in water

Section 10. Stability and reactivity

Reactivity : No specific test data related to reactivity available for this product or its ingredients.

Chemical stability : The product is stable.

Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to avoid : Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition.

Incompatible materials : Oxidizers

Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Hazardous polymerization : Under normal conditions of storage and use, hazardous polymerization will not occur.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
ammonia, anhydrous	LC50 Inhalation Gas.	Rat	7338 ppm	1 hours

IDLH : 300 ppm

Irritation/Corrosion

Not available.

Sensitization

Not available.

Mutagenicity

Not available.

Carcinogenicity

Not available.

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Section 11. Toxicological information

Not available.

Information on the likely routes of exposure : Not available.

Potential acute health effects

Eye contact : Causes serious eye damage. Liquid can cause burns similar to frostbite.

Inhalation : Harmful if inhaled.

Skin contact : Causes severe burns. Dermal contact with rapidly evaporating liquid could result in freezing of the tissues or frostbite.

Ingestion : Ingestion of liquid can cause burns similar to frostbite.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : Adverse symptoms may include the following:, pain, watering, redness, frostbite

Inhalation : No specific data.

Skin contact : Adverse symptoms may include the following:, pain or irritation, redness, blistering may occur, frostbite

Ingestion : Adverse symptoms may include the following:, frostbite, stomach pains

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

Not available.

General : No known significant effects or critical hazards.

Carcinogenicity : No known significant effects or critical hazards.

Mutagenicity : No known significant effects or critical hazards.

Teratogenicity : No known significant effects or critical hazards.

Developmental effects : No known significant effects or critical hazards.

Fertility effects : No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Not available.

Other information : IDLH : 300 ppm

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
ammonia, anhydrous	Acute EC50 29.2 mg/l Marine water Acute LC50 2080 µg/l Fresh water Acute LC50 0.53 ppm Fresh water Acute LC50 300 µg/l Fresh water Chronic NOEC 0.204 mg/l Marine water	Algae - Ulva fasciata - Zoea Crustaceans - Gammarus pulex Daphnia - Daphnia magna Fish - Hypophthalmichthys nobilis Fish - Dicentrarchus labrax	96 hours 48 hours 48 hours 96 hours 62 days

Persistence and degradability

Not available.

Bioaccumulative potential

Not available.

Mobility in soil

Soil/water partition coefficient (K_{OC}) : Not available.

Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Empty Airgas-owned pressure vessels should be returned to Airgas. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Do not puncture or incinerate container.

Section 14. Transport information

	DOT	TDG	Mexico	IMDG	IATA
UN number	UN1005	UN1005	UN1005	UN1005	UN1005
UN proper shipping name	AMMONIA, ANHYDROUS	AMMONIA, ANHYDROUS; OR ANHYDROUS AMMONIA	AMMONIA, ANHYDROUS	AMMONIA, ANHYDROUS	AMMONIA, ANHYDROUS
Transport hazard class(es)	2.2 	2.3 (8) 	2.3 (8) 	2.3 (8) 	2.3 (8) 
Packing group	-	-	-	-	-
Environment	No.	No.	No.	Yes.	No.

Section 14. Transport information

Additional information	Inhalation hazard This product is not regulated as a marine pollutant when transported on inland waterways in sizes of ≤5 L or ≤5 kg or by road, rail, or inland air in non-bulk sizes, provided the packagings meet the general provisions of §§ 173.24 and 173.24a. **Reportable quantity** 100 lbs / 45.4 kg Package sizes shipped in quantities less than the product reportable quantity are not subject to the RQ (reportable quantity) transportation requirements. **Limited quantity** Yes. **Packaging instruction** **Passenger aircraft** Quantity limitation: Forbidden. **Cargo aircraft** Quantity limitation: Forbidden. **Special provisions** 13,T50	Product classified as per the following sections of the Transportation of Dangerous Goods Regulations: 2.13-2.17 (Class 2), 2.40-2.42 (Class 8), 2.7 (Marine pollutant mark). The marine pollutant mark is not required when transported by road or rail. **Explosive Limit and Limited Quantity Index** 0 **ERAP Index** 3000 **Passenger Carrying Ship Index** Forbidden **Passenger Carrying Road or Rail Index** Forbidden **Special provisions**	Toxic Inhalation Hazard Zone D	The marine pollutant mark is not required when transported in sizes of ≤5 L or ≤5 kg.	The environmentally hazardous substance mark may appear if required by other transportation regulations. **Passenger and Cargo Aircraft**Quantity limitation: 0 Forbidden **Cargo Aircraft Only** Quantity limitation: Forbidden

"Refer to CFR 49 (or authority having jurisdiction) to determine the information required for shipment of the product."

Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code : Not available.

Section 15. Regulatory information

U.S. Federal regulations : **TSCA 8(a) CDR Exempt/Partial exemption**: Not determined

United States inventory (TSCA 8b): This material is listed or exempted.

Clean Water Act (CWA) 311: ammonia, anhydrous

Clean Air Act (CAA) 112 regulated toxic substances: ammonia, anhydrous

Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs) : Not listed

Clean Air Act Section 602 Class I Substances : Not listed

Clean Air Act Section 602 Class II Substances : Not listed

DEA List I Chemicals (Precursor Chemicals) : Not listed

Section 15. Regulatory information

DEA List II Chemicals (Essential Chemicals) : Not listed

SARA 302/304

Composition/information on ingredients

Name	%	EHS	SARA 302 TPQ (lbs)	SARA 302 TPQ (gallons)	SARA 304 RQ (lbs)	SARA 304 RQ (gallons)
ammonia, anhydrous	100	Yes.	500	-	100	-

SARA 304 RQ : 100 lbs / 45.4 kg

SARA 311/312

Classification : Fire hazard
Sudden release of pressure
Immediate (acute) health hazard

Composition/information on ingredients

Name	%	Fire hazard	Sudden release of pressure	Reactive	Immediate (acute) health hazard	Delayed (chronic) health hazard
ammonia, anhydrous	100	Yes.	Yes.	No.	Yes.	No.

SARA 313

	Product name	CAS number	%
Form R - Reporting requirements	ammonia, anhydrous	7664-41-7	100
Supplier notification	ammonia, anhydrous	7664-41-7	100

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

State regulations

Massachusetts : This material is listed.
New York : This material is listed.
New Jersey : This material is listed.
Pennsylvania : This material is listed.

International regulations

International lists

National inventory

Australia : This material is listed or exempted.
Canada : This material is listed or exempted.
China : This material is listed or exempted.
Europe : This material is listed or exempted.
Japan : This material is listed or exempted.
Malaysia : This material is listed or exempted.
New Zealand : This material is listed or exempted.
Philippines : This material is listed or exempted.
Republic of Korea : This material is listed or exempted.
Taiwan : This material is listed or exempted.

Canada

WHMIS (Canada) : Class A: Compressed gas.
Class B-1: Flammable gas.
Class D-1A: Material causing immediate and serious toxic effects (Very toxic).
Class E: Corrosive material

Section 15. Regulatory information

CEPA Toxic substances: This material is listed.
Canadian ARET: This material is not listed.
Canadian NPRI: This material is listed.
Alberta Designated Substances: This material is not listed.
Ontario Designated Substances: This material is not listed.
Quebec Designated Substances: This material is not listed.

Section 16. Other information

Canada Label requirements : Class A: Compressed gas.
Class B-1: Flammable gas.
Class D-1A: Material causing immediate and serious toxic effects (Very toxic).
Class E: Corrosive material

Hazardous Material Information System (U.S.A.)

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks Although HMIS® ratings are not required on SDSs under 29 CFR 1910. 1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

The customer is responsible for determining the PPE code for this material.

National Fire Protection Association (U.S.A.)

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Copyright ©2001, National Fire Protection Association, Quincy, MA 02269. This warning system is intended to be interpreted and applied only by properly trained individuals to identify fire, health and reactivity hazards of chemicals. The user is referred to certain limited number of chemicals with recommended classifications in NFPA 49 and NFPA 325, which would be used as a guideline only. Whether the chemicals are classified by NFPA or not, anyone using the 704 systems to classify chemicals does so at their own risk.

Procedure used to derive the classification

Classification	Justification
Flam. Gas 2, H221	Expert judgment
Press. Gas Liq. Gas, H280	Expert judgment
Acute Tox. 4, H332	Expert judgment
Skin Corr. 1, H314	Expert judgment
Eye Dam. 1, H318	Expert judgment
Aquatic Acute 1, H400	Expert judgment

History

Date of printing : 1/5/2017
Date of issue/Date of revision : 1/5/2017
Date of previous issue : 12/20/2016
Version : 0.09

Section 16. Other information

Key to abbreviations : ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL 73/78 = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
UN = United Nations

References : Not available.

Indicates information that has changed from previously issued version.

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.
Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

Attachment 3: Vulnerability Zone Calculations

Facility Name: Imperia Foods Inc. Fall Creek Report Year: 2023 City: FALL CREEK State: WI

Chemical Name: AMMONIA CAS Number: 7664-41-7

Screening Name: Ammonia/Reevaluation

Screening Description

Amount Released	2,500	pounds
Concentration	100	% by weight
Release Duration	10	minutes
Physical State	(●) Gas ( ) Liquid ( ) Solid	
Surface area within dike		sq ft (enter a value only if stored in a container with a dike)
Atmospheric Concentration Level of Concern	0.035	gm/m^3

Matches the EPA Green Book LOC value for this chemical.

Weather Information

Wind Speed	3.35	mph
Ground Roughness	Open Country	
Stability Class	F	

Risk Assessment

Risk		Probability of described accident occurring
Consequences		Severity of consequences to people
Overall Risk		Combination of probability and severity of consequences

Estimate Threat Zone Radius Threat Zone Radius 6.3 miles Show on Map

Facility Name: Imperia Foods Inc. Fall Creek Report Year: 2023 City: FALL CREEK State: WI

Chemical Name: AMMONIA CAS Number: 7664-41-7

Scenario Name: Ammonia/Reevaluation

Scenario Description

Amount Released: 2,500 pounds

Concentration: 100 % by weight

Release Duration: 10 minutes

Physical State: (•) Gas ( ) Liquid ( ) Solid

Surface area within dike: sq ft (enter a value only if stored in a container with a dike)

Atmospheric Concentration Level of Concern: 0.035 gm/m^3

Matches the EPA Green Book LOC value for this chemical.

Weather Information

Wind Speed: 11.9 mph

Wind From: degrees clockwise from 0 N (for example 45 means wind from NE)

Ground Roughness: Open Country

Stability Class: D

Risk Assessment

Risk: Probability of described accident occurring

Consequences: Severity of consequences to people

Overall Risk: Combination of probability and severity of consequences

Estimate Threat Zone Radius Threat Zone Radius 0.7 miles Show on Map

Attachment 4: Transportation Routes