Safety Data Sheet

Issue Date: 01-Jan-2017 **Revision Date:** 12-Nov-2016 **Version** 1

1. IDENTIFICATION

Product Identifier

Product Name Cal 850-A

Other means of identification

SDS #

UN/ID No UN 2672

Recommended use of the chemical and restrictions on use

Recommended Use Industrial Use Only

Details of the supplier of the safety data sheet

Supplier Address

Cal Pac Chemicals, Inc
6231 Maywood Ave
Huntington Park, CA 90255

Emergency Telephone Number

Company Phone Number (323) 585-2178

Emergency Telephone (24 hr) Chemtrec 1-800-424-9300 (North America) 1-703-527-3887 (International)

2. HAZARDS IDENTIFICATION

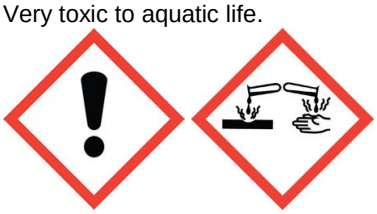
Appearance Light Ammonium Mixture **Physical State** Liquid **Odor** Ammonia

Classification

Acute toxicity - Inhalation (Dusts/Mists)	Category 4
Skin corrosion/irritation	Category 1 Sub-category A
Serious eye damage/eye irritation	Category 1

Signal Word
Danger

Hazard Statements
Harmful if swallowed
Causes severe skin burns and eye damage
Very toxic to aquatic life.



Precautionary Statements - Prevention
Avoid release into the environment
Do not breathe dust/fume/gas/mist/vapors/spray
Wash face, hands and any exposed skin thoroughly after handling
Wear protective gloves/protective clothing/eye protection/face protection

Precautionary Statements – Response
Immediately call a POISON CENTER or doctor/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 doctor/physician
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
Wash contaminated clothing before reuse.
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
Immediately call a POISON CENTER or doctor/physician
IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician
Rinse mouth
Do not induce vomiting

Precautionary Statements - Storage
Store locked up

Precautionary Statements - Disposal
Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)
Not applicable

Unknown Toxicity
0% of the mixture consists of ingredient(s) of unknown toxicity

Other Information
May be harmful if swallowed.
May be harmful in contact with skin.

Interactions with Other Chemicals
No information available.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No	Weight-%
Ammonium Hydroxide	1336-21-6	>20

If Chemical Name/CAS No is "proprietary" and/or Weight-% is listed as a range, the specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. FIRST-AID MEASURES

First Aid Measures

Eye Contact Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep eye wide open while rinsing. Do not rub affected area. Remove contact lenses if present and easy to do. Continue rinsing. Seek immediate medical attention/advice.

Skin Contact Wash off immediately with plenty of water. Wash skin thoroughly with mild soap and water. Take off contaminated clothing and shoes. Wash contaminated clothing before reuse. Get medical attention immediately.

Inhalation Remove to fresh air. If breathing is difficult, give oxygen. Seek immediate medical attention/advice.

Ingestion Rinse mouth. Do NOT induce vomiting. Rinse mouth immediately and drink plenty of water. Never give anything by mouth to an unconscious person. Call a physician or poison control center immediately.

Most important symptoms and effects

Symptoms Prolonged contact may even cause severe skin irritation or mild burn. May cause eye burns and permanent eye damage. May cause irritation to the mucous membranes and upper respiratory tract. Irritation and corrosive burns to mouth, throat, and stomach. Ingestion may cause vomiting. Ingestion may cause nervous system depression.

Indication of any immediate medical attention and special treatment needed

Notes to Physician Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated. Do not give chemical antidotes. Asphyxia from glottal edema may occur. Marked decrease in blood pressure may occur with moist rales, frothy sputum, and high pulse pressure.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Dry chemical. Carbon dioxide (CO2). Water spray.

Unsuitable Extinguishing Media Use of water spray when fighting fire may be inefficient.

Specific Hazards Arising from the Chemical

Ammonia solutions.

Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal Precautions Ventilate area of leak or spill. Wear appropriate personal protective equipment as specified in Section 8. Isolate hazard area. Keep unnecessary and unprotected personnel from entering.

Environmental Precautions Contain and recover liquid when possible. Do not let product enter drains. Do not flush caustic residues to the sewer. Residues from spills can be diluted with water, neutralized with dilute acid such as Acetic, Hydrochloric or Sulfuric. Absorb neutralized caustic residue on clay, vermiculite or other inert substance and package in a suitable container for disposal. US Regulations (CERCLA) require reporting spills and releases to soil, water and air in excess of reportable quantities. The toll free number for the US Coast Guard National Response Center is (800) 424-8802.

Methods and material for containment and cleaning up

Methods for Containment Prevent further leakage or spillage if safe to do so.

Methods for Clean-Up Collect with dry sand, clay, or other absorbent. Carefully neutralize the dilute liquid with caustic soda, lime, or other alkaline material. Wash spill area with plenty of water.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on Safe Handling Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. In case of insufficient ventilation, wear suitable respiratory equipment. Use only with adequate ventilation and in closed systems. Do not eat, drink or smoke when using this product. Take off contaminated clothing and wash before reuse. Do not breathe dust. Avoid generation of dust.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed in a dry, cool and well-ventilated place. Protect from moisture. Store locked up. Keep out of the reach of children. Store away from other materials.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Ammonium Hydroxide	25 ppm (NH3) (TWA) 35 ppm (STEL)	50 ppm (NH3)	

Appropriate engineering controls

Engineering Controls Showers, Eyewash stations, Ventilation systems.

Individual protection measures, such as personal protective equipment

Ventilation System: A system of local and / or general exhaust is recommended to keep employee exposures below the Airborne Exposure Limits. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Please refer to the ACGIH document, Industrial Ventilation, A Manual of Recommended Practices, most recent edition, for details.

Personal Respirators (NIOSH Approved): If the exposure limit is exceeded and engineering controls are not feasible, a full face piece respirator with an ammonia/methylamine cartridge may be worn up to 50 times the exposure limit or the maximum use concentration specified by the appropriate regulatory agency or respirator supplier, whichever is lowest. For emergencies or instances where the

exposure levels are not known, use a full face piece positive-pressure, air-supplied respirator. WARNING: Air purifying respirators do not protect workers in Oxygen-deficient atmospheres.

Skin Protection: Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact. Neoprene and nitrile rubber are recommended materials. Polyvinyl alcohol is not recommended.

Eye Protection: Use chemical safety goggles and / or full face shield where dusting or splashing of solutions is possible. Maintain eye wash fountain and quick-drench facilities in work area.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical State	Liquid		
Appearance	Liquid	**Odor**	Strong Ammonia
Color	White to off-white	**Odor Threshold**	Not determined

Property	**Values**	**Remarks • Method**
pH	Not available	(1% solution in water)
Melting Point/Freezing Point	Not available	
Boiling Point/Boiling Range	Not available	
Flash Point	Not combustible	
Evaporation Rate	Not available	
Flammability (Solid, Gas)	n/a-liquid	
Upper Flammability Limits	Not applicable	
Lower Flammability Limit	Not applicable	
Vapor Pressure	Not available	
Vapor Density	Not available	
Specific Gravity	Not available	(1=Water)
Water Solubility	Soluble in water	
Solubility in other solvents	Not determined	
Partition Coefficient	Not determined	
Auto-ignition Temperature	Not available	
Decomposition Temperature	Not determined	
Kinematic Viscosity	Not determined	
Dynamic Viscosity	Not determined	
Explosive Properties	Not determined	
Oxidizing Properties	Not determined	

10. STABILITY AND REACTIVITY

Reactivity
No data available.

Chemical Stability
Stable under recommended storage conditions.

Possibility of Hazardous Reactions
Heat, sunlight, incompatibles, source of ignition..

Hazardous Polymerization Hazardous polymerization does not occur.

Conditions to Avoid
Exposure to air or moisture over prolonged periods. Excessive heat.

Incompatible Materials
Acids, Acrolein, Dimethyl Sulfate, halogens, Silver Nitrate, Propylene Oxide, Nitromethane, Silver Oxide, Silver Permanganate, Oleum, Beta-propiolactone. Most common metals.

Hazardous Decomposition Products
Burning may product Ammonia, Nitrogen Oxides.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Emergency Overview: POISON! DANGER! CORROSIVE. MAY BE FATAL IF SWALLOWED OR INHALED. MIST AND VAPOR CAUSE BURNS TO EVERY AREA OF CONTACT.

Potential Health Effects:

Inhalation: Vapors and mists cause irritation to the respiratory tract. Higher concentrations can cause burns, pulmonary edema and death. Brief exposure to 5000 ppm can be fatal.

Ingestion: Toxic! May cause corrosion to the esophagus and stomach with perforation and peritonitis. Symptoms may include pain in the mouth, chest, and abdomen, with coughing, vomiting and collapse. Ingestion of as little as 3-4 mL may be fatal.

Skin Contact: Causes irritation and burns to the skin.

Eye Contact: Vapors cause irritation. Splashes cause severe pain, eye damage, and permanent blindness.

Chronic Exposure: Repeated exposure may cause damage to the tissues of the mucous membranes, upper respiratory tract, eyes and skin.

Aggravation of Pre-existing Conditions: Persons with pre-existing eye disorders or impaired respiratory function may be more susceptible to the effects of this material.

Specific Target Organ Toxicity - Single Exposure (Globally Harmonized System:) No data available. Specific Target Organ Toxicity - Repeated Exposure (Globally Harmonized System:) No data available. Numerical Measures of Toxicity: Cancer Lists: NTP Carcinogen

Component Information

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Ammonium Hydroxide	Oral rat LD50: 350 mg/kg; eye, rabbit, standard Draize, 250 ug; severe Investigated as a mutagen.	= 1350 mg/kg (rabbit)	

Information on physical, chemical and toxicological effects

Symptoms Please see section 4 of this SDS for symptoms.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Carcinogenicity Note: The agencies below have listed Strong Inorganic Acid Mists, Containing Sulfuric Acid as a known carcinogen.

Legend

ACGIH (American Conference of Governmental Industrial Hygienists)
A2 - Suspected Human Carcinogen
IARC (International Agency for Research on Cancer)
Group 1 - Carcinogenic to Humans
NTP (National Toxicology Program)
Known - Known Carcinogen
OSHA (Occupational Safety and Health Administration of the US Department of Labor)
X - Present

12. ECOLOGICAL INFORMATION

Ecotoxicity

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

Chemical Name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Ammonium Hydroxide		24 Hr LC50 rainbow trout: 0.008 mg/L 96 Hr LC50 fathead minnow: 8.2 mg/L 48 Hr LC50 bluegill: 0.024 mg/L		48 Hr EC50 water flea: 0.66 mg/L

Persistence/Degradability

Not determined.

Bioaccumulation

Not determined.

Other Adverse Effects

Not determined

13. DISPOSAL CONSIDERATIONS

Waste Treatment Methods

Very toxic to aquatic organisms. An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste facility. Although not a listed RCRA hazardous waste, this material may exhibit one or more characteristics of a hazardous waste and require appropriate analysis to determine specific disposal requirements. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

California Hazardous Waste Status

Chemical Name	California Hazardous Waste Status
Ammonium Hydroxide	Toxic Corrosive

14. TRANSPORT INFORMATION

Note Please see current shipping paper for most up to date shipping information, including exemptions and special circumstances.

DOT

UN/ID No	UN 2672
Proper Shipping Name	Ammonia Solutions
Hazard Class	8
Subsidiary Hazard Class	6.1
Packing Group	II

IATA Cargo Aircraft only

UN/ID No	UN 2672
Proper Shipping Name	Ammonia Solutions
Hazard Class	8
Subsidiary Hazard Class	6.1
Packing Group	II

IMDG

UN/ID No	UN 2672
Proper Shipping Name	Ammonia Solutions
Hazard Class	8
Subsidiary Hazard Class	6.1
Packing Group	II

15. REGULATORY INFORMATION

International Inventories

Not determined

US Federal Regulations

CERCLA

Chemical Name	Hazardous Substances RQs	CERCLA/SARA RQ	Reportable Quantity (RQ)
Sulfuric Acid 7664-93-9	1000 lb	1000 lb	RQ 1000 lb final RQ RQ 454 kg final RQ
Hydrofluoric acid 7664-39-3	100 lb	100 lb	RQ 100 lb final RQ RQ 45.4 kg final RQ

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any c Act and Title 40 of the Code of Federal Regulations, Part 372

SARA 311/312 Hazard Categories

Acute Health Hazard	Yes
Chronic Health Hazard	No
Fire Hazard	No
Sudden release of pressure hazard	No
Reactive Hazard	No

CWA (Clean Water Act)

Component	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Ammonium Hydroxide	1000 lb			X

US State Regulations

California Proposition 65

This product contains the following Proposition 65 chemicals.

Chemical Name	California Proposition 65
Ammonium Hydroxide	

16. OTHER INFORMATION

NFPA

Health Hazards	Flammability	Instability	Special Hazards
3	0	0	Not determined

HMIS

Health Hazards	Flammability	Physical Hazards	Personal Protection
Not determined	Not determined	Not determined	Not determined

Issue Date: 01-Jan-2011
Revision Date: 12-Nov-2013
Revision Note: New format

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet