

SECTION 1 : IDENTIFICATION

Product Name: NEUTRAMINE
Product Use: Steam Boiler Treatment

Supplier: Glengarry Solutions
Address: 33 Melford Drive, Unit 6,
Scarborough, Ontario. M1B 2G6

Phone: 416-757-1333
Fax: 416-757-9793
POISON CONTROL CENTRE: 1-800-268-9017

SECTION 2 : HAZARD IDENTIFICATION

GHS Classification:

- Category 4: Flammable Liquid
- Category 4: Acute Toxicity, oral
- Category 3: Acute Toxicity, dermal
- Category 4: Acute Toxicity, inhalation
- Category 1B: Skin Corrosion
- Category 1: Serious Eye Damage
- Category 2: Reproductive toxicity
- Category 3: Specific target organ toxicity, single exposure (respiratory tract irritation)

Signal Word: **DANGER**

Pictogram:



Hazard Statements:

- H227: Combustible liquid
- H302: Harmful if swallowed
- H311: Toxic in contact with skin
- H314: Causes severe skin burns and eye damage
- H318: Causes serious eye damage
- H335: May cause respiratory irritation
- H361: Suspected of damaging fertility

Precautionary Statements:

- P202: Do not handle until all safety precautions have been read and understood.
- P280: Wear protective gloves/protective clothing/face protection.
- P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
- P243: Take precautionary measures against static discharge.
- P270: Do not eat, drink or smoke when using this product.
- P233: Keep container tightly closed.
- P234: Keep only in original container.
- P260: Do not breathe vapours or mist.
- P264: Wash thoroughly after handling.

Response Statements:

- P301+P330+P331+P310 IF SWALLOWED: Rinse mouth. DO NOT INDUCE VOMITING. Immediately call a POISON CENTER/doctor.
- P303+P361+P353+P310 IF ON SKIN (or hair): Remove immediately all contaminated clothing. Rinse skin with water. Immediately call a POISON CENTER/doctor.
- 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/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.

Storage: P405: Store locked up.
Disposal: P501: Dispose of container according to all applicable regulations.

SECTION 3 : COMPOSITION/INFORMATION ON INGREDIENTS

COMPONENTS	CAS NO.	EC No.	CONCENTRATION (wt/wt %)
Cyclohexylamine	108-91-8		10.0 - 20.0
Morpholine	110-91-8		10.0 - 20.0

SECTION 4 : FIRST AID MEASURES

EYES: Wash with copious amounts of water for at least 20 minutes keeping eyelids open. If irritation persists repeat flushing. Get immediate medical attention.

SKIN: Immediately wash the affected areas with plenty of water. If irritation persists, obtain medical attention.

INHALATION: Remove person to fresh air and keep comfortable for breathing. Seek medical attention immediately.

INGESTION: Do not attempt to give anything by mouth to an unconscious person. If person is alert and not convulsing rinse mouth out and give 1-2 glasses of water to dilute material and seek medical attention immediately. DO NOT INDUCE VOMITING.

Most important symptoms and effects, both acute and delayed

Nausea, vomiting, burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. May cause respiratory irritation. Coughing.

General Information

If exposed or concerned, get medical advice/attention. Ensure that medical personnel are aware of the materials involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance.

SECTION 5 : FIRE FIGHTING MEASURES

Flammability: Combustible liquid.

Suitable Extinguishing Media: Use extinguishing media suitable for surrounding materials.

Specific Hazards Arising from the Chemical: The product is combustible, and heating may generate vapors which may form explosive vapor/air mixtures. During fire, gases hazardous to health may be formed.

Special Protective Equipment and Precautions for Fire-fighters:
Self contained breathing apparatus and protective clothing should be worn in fighting all fires involving chemicals.

SECTION 6 : ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures:

Use personal protective equipment. Ensure adequate ventilation. Evacuate personnel to safe areas. Eliminate all ignition sources. Avoid contact with skin, eyes and inhalation of vapors.

Environmental Precautions:

Prevent further leakage or spillage if safe to do so. Prevent entry into waterways, sewers, or confined areas. Do not flush into surface water or sanitary sewer system.

Methods and Materials for Containment and Cleaning Up:

Soak up with an inert and non-combustible absorbent material (e.g. sand, vermiculite, earth). Keep in suitable, closed containers for disposal. Dispose of according to local, provincial and federal regulations.

SECTION 7 : HANDLING AND STORAGE

Precautions for Safe Handling:

Use normal good industrial hygiene and safety practices. Use recommended safety equipment when handling. Keep away from open flames, hot surfaces and sources of ignition. Do not breathe mist or vapor. Do not get this material in contact with eyes. Do not get this material in contact with skin. Wash thoroughly after handling.

Conditions for Safe Storage:

Avoid storage at high temperatures and protect from freezing. Store in a well-ventilated place. Store away from incompatibles. Keep away from heat, sparks and open flame. Keep containers closed when not in use.

SECTION 8 : EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

COMPONENTS	CAS NO.	ACGIH TLV	OSHA PEL	NIOSH IDLH
Cyclohexylamine	108-91-8	10 ppm TWA	10 ppm TWA (40mg/m3)	
Morpholine	110-91-8	20 ppm TWA	20 ppm TWA 970 mg/m3)	1400 ppm

Legend

ACGIH - American Conference of Governmental Industrial Hygienists

OSHA - Occupational Safety and Health Administration

NIOSH IDLH: The National Institute for Occupational Safety and Health Immediately Dangerous to Life or Health

Appropriate Engineering Controls:

Ensure adequate ventilation, especially in confined areas.

Individual Protection Measures:

Eyes: Chemical safety goggles/Faceshield.

Skin: Chemical resistant gloves and appropriate protective clothing.

Respiratory: Approved NIOSH respiratory protection if TLV/PEL is exceeded or if over exposure is likely.

Work Hygienic Practices: Facilities storing or using this material should be equipped with emergency eyewash, and a safety shower. Good personal and industrial hygiene and safety practices should always be followed.

SECTION 9 : PHYSICAL AND CHEMICAL PROPERTIES

Physical State:	Liquid.
Colour:	Clear and colourless.
Odour :	Strong Amine Odour.
Odour Threshold:	No information available.
pH:	12.0 - 12.5
Specific Gravity (water = 1) :	0.95 - 1.00
Melting point/Freezing point:	No information available.
Boiling point:	No information available.
Flammability:	No information available.
Upper Explosive Limit:	No information available.
Lower Explosive Limit:	No information available.
Flash Point:	No information available.
Auto-ignition Temperature:	No information available.
Decomposition Temperature:	No information available.
Viscosity:	No information available.
Vapour Pressure (mm Hg) :	No information available.
Vapour Density (air = 1) :	No information available.
Evaporation Rate :	No information available.
Solubility in Water :	Miscible.
Partition Coefficient n-Octanol/Water:	No information available.

SECTION 10 : STABILITY AND REACTIVITY

Reactivity:	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical Stability:	Stable under normal conditions.
Possibility of Hazardous Reactions:	Hazardous polymerization does not occur.
Conditions to Avoid:	Avoid heat, sparks, open flames and other ignition sources, and contact with incompatible materials.
Incompatible Materials:	Strong acids and oxidizers.
Hazardous Decomposition Products:	Oxides of carbon and nitrogen evolved in fire.

SECTION 11 : TOXICOLOGICAL INFORMATION

Primary Route of Exposure:	Eye contact, skin contact, ingestion and inhalation.
Skin Corrosion/Irritation:	Causes severe skin burns.
Serious eye damage/irritation:	Causes serious eye damage.
Respiratory or skin sensitization:	This product is not expected to cause respiratory nor skin sensitization.
Germ cell mutagenicity:	No information available.
Carcinogenicity:	The ingredients of this product are not classified as carcinogens by ACGIH or IARC, not regulated as carcinogen by OSHA, and not listed as carcinogen by NTP.
Reproductive toxicity:	Cyclohexylamine is suspected of damaging fertility.
STOT-single exposure:	No information available.
STOT-repeated exposure:	No information available.
Aspiration hazard:	No information available.

Component Acute Toxicity Information

COMPONENT	CAS No.	ORAL LD ₅₀	DERMAL LD ₅₀	INHALATION LC ₅₀
Cyclohexylamine	108-91-8	156 mg/Kg (Rat)	275 mg/kg (Rabbit)	1000 ppm (Rat) 16 h
Morpholine	110-91-8	1050 mg/kg (Rat)	310 mg/kg (Rabbit)	8000 ppm (rat) 8 h

SECTION 12 : ECOLOGICAL INFORMATION

COMPONENT	CAS No.	Freshwater Algae	Freshwater Fish	Water Flea
Cyclohexylamine	108-91-8	EC ₅₀ : = 20 mg/L, 96h (Pseudokirchneriella subcapitata)	LC ₅₀ : 44 - 90 mg/L, 96h (Oncorhynchus mykiss)	EC ₅₀ : = 49 mg/L, 24h (Daphnia magna)
Morpholine	110-91-8	EC ₅₀ : = 28 mg/L, 96h static (Pseudokirchneriella subcapitata)	LC ₅₀ : 375 - 460 mg/L, 96h (Oncorhynchus mykiss)	EC ₅₀ : = 100 mg/L, 24h (Daphnia magna)

Toxicity: No information available.
Persistence and degradability: Soluble in water Persistence is unlikely based on information available.
Bioaccumulative potential: No information available.
Mobility in soil: Will likely be mobile in the environment due to its water solubility.
Other adverse effects: No information available.

SECTION 13 : DISPOSAL CONSIDERATIONS

Waste Disposal of substance: Dispose of in accordance with national, state/provincial and regional regulations.
Container disposal: Dispose of in accordance with national, state/provincial and regional regulations.

SECTION 14 : TRANSPORT INFORMATION

T.D.G./D.O.T. Classification:

Shipping Name: CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S.
(Cyclohexylamine, Morpholine Solution)
UN Number: 3267 **Class:** 8 **Packing Group:** II

SECTION 15 : REGULATORY INFORMATION

WHMIS Classification:



Class B3: Combustible Liquid



Class D1: Material Causing Immediate & Serious Toxic Effects



Class D2: Material Causing Other Toxic Effects



Class E: Corrosive

This product has been classified in accordance with the hazard criteria of the Hazardous Products Regulation (HPR), Hazard Communication Rule (2012), Regulation (EC) No 1907/2006

SECTION 16 : OTHER INFORMATION

Preparation Information:

Latest Revision Date: 23-Oct-2018 **Issue Date:** 23-Oct-2018
Version No. 1.0 **Supersedes:**

Revision Notes: This document has been updated to comply with the Globally Harmonized System of Classification and Labeling of Chemicals (GHS).

Prepared By: Regulatory Affairs.

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