

Safety Data Sheet

1. IDENTIFICATION

Product Identifier: NO. 45 CORROSION INHIB. **Date of Revision:** January 31, 2018
Product Code: S748
Other Name(s):
Distributed By:
Recommended Use and Restrictions on Use: boiler water treatment
Manufactured By: Ostrem Chemical Co. Ltd. Phone: 780-440-1911
2310 - 80th Avenue NW In Case of Emergency Only, Phone
Edmonton, Alberta, Canada T6P 1N2 CANUTEC: 613-996-6666
www.ostrem.com

2. HAZARDS IDENTIFICATION

Classification of the Mixture: Eye Damage/Irritation - Category 1
Skin Corrosion/Irritation - Category 1
Acute Toxicity, Oral - Category 3
Flammable Liquids - Category 3

Label Elements:

Hazard Pictogram(s):



Signal Word: DANGER

Hazard Statement(s): Causes severe skin burns and eye damage.
Toxic if swallowed.
Flammable liquid and vapour.

Precautionary Statement(s):

Prevention: Do not breathe dusts or mists.
Wash hands thoroughly after handling.
Do not eat, drink or smoke when using this product.
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
Wear protective gloves, protective clothing, and eye/face protection.

Response: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Immediately call a poison centre or physician.
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. Wash contaminated clothing before reuse. Immediately call a poison centre or physician.
IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a poison centre 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 centre or physician.

Storage: Store locked up.
Store in a well-ventilated place. Keep cool.

Disposal: Dispose of contents/container in accordance with local/regional/national/international regulations.

Physical/health hazards not otherwise classified:

not applicable

3. COMPOSITION/INFORMATION ON INGREDIENTS

<u>Chemical Name</u>	<u>Conc.</u>	<u>CAS #</u>	<u>Common Names</u>
cyclohexylamine	10 - 30%	108-91-8	
morpholine	5 - 10%	110-91-8	

4. FIRST-AID MEASURES

Safety Data Sheet

Necessary Measures:

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Immediately call a poison centre or physician.
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. Wash contaminated clothing before reuse. Immediately call a poison centre or physician.
IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a poison centre 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 centre or physician.

Most important symptoms, both acute and delayed:

Causes serious eye damage.
Causes severe skin burns and eye damage.
Toxic if swallowed.

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

not applicable

5. FIRE-FIGHTING MEASURES

Suitable (and unsuitable) extinguishing media:

Use extinguishing media appropriate for surrounding fire.

Specific hazards arising from the chemical (e.g.: hazardous combustion products):

May liberate carbon monoxide, carbon dioxide and nitrogen oxides.

Special protective equipment and precautions for firefighters:

As for surrounding fire. Firefighters should wear full protective clothing and self contained breathing equipment.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures:

Wear appropriate protective equipment. See section 8.

Environmental precautions:

Prevent from entering sewers, waterways or low areas.

Methods and materials for containment and cleaning up:

Isolate hazard area and restrict access. Small spills: soak up with inert absorbent material and scoop into containers. Large spills: prevent contamination of waterways. Dike and pump into suitable containers. Clean up residual with absorbent material, place in appropriate container and flush with water.

7. HANDLING AND STORAGE

Precautions for safe handling:

Do not breathe dusts or mists.
Wash hands thoroughly after handling.
Do not eat, drink or smoke when using this product.
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
Do not ingest. Avoid contact with eyes, skin and clothing.

Conditions for safe storage, including any incompatibilities:

Store locked up.
Store in a well-ventilated place. Keep cool.
Keep out of reach of children. Store in a cool, dry area.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters - Exposure limits:

Ingredient:
cyclohexylamine
morpholine

Limit:
OSHA TWA: 10 ppm/41 mg/m³
ACGIH TLV-TWA: 20 ppm

Appropriate engineering controls:

Provide exhaust ventilation to keep airborne levels below recommended exposure limits.

Respiratory protection:

If exposure exceeds occupational exposure limits, use an appropriate NIOSH approved respirator.

Safety Data Sheet

Other protection:

Wear protective gloves, protective clothing, and eye/face protection.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance (physical state, colour etc.):	clear, pale liquid
Odour:	amine odour
Odour threshold:	not available
pH:	alkaline
Melting/Freezing point:	not available
Initial boiling point and range:	not available
Flash point:	55 C
Evaporation rate:	not available
Flammability (solid, gas):	not available
Upper/lower flammability or explosive limits:	not available
Vapour pressure:	not available
Vapour density:	not available
Relative density (specific gravity):	0.987
Solubility(ies):	complete
Partition co-efficient: n-octanol/water:	not available
Auto-ignition temperature:	not available
Decomposition temperature:	not available
Viscosity:	not available

10. STABILITY AND REACTIVITY

Reactivity:

This material is considered to be non-reactive under normal use conditions.

Chemical stability:

Stable.

Possibility of hazardous reactions:

not available

Conditions to avoid (e.g.: static discharge, shock or vibration):

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Incompatible materials:

Oxidizers / Acid / Other

Hazardous decomposition products:

not available

11. TOXICOLOGICAL INFORMATION

POTENTIAL ACUTE HEALTH EFFECTS

Inhalation: High vapour concentrations caused, for example, by heating the material in an enclosed and poorly ventilated workplace, may produce nausea, vomiting, headache, dizziness, and irregular eye movements. Prolonged or repeated overexposure may result in lung damage. Prolonged or repeated overexposure may result in the absorption of potentially harmful amounts of material.

Ingestion: Toxic if swallowed.

Eye contact: Causes serious eye damage.

Skin contact: Causes severe skin burns and eye damage.

Skin absorption: not available

POTENTIAL CHRONIC HEALTH EFFECTS

Inhalation: not available

Ingestion: not available

Eye contact: not available

Skin contact: not available

Skin absorption: not available

Safety Data Sheet

Mutagenicity:	not available
Carcinogenicity:	This information, if applicable, can be found in Section 2.
Reproductive toxicity:	This information, if applicable, can be found in Section 2.
Sensitization of product:	This information, if applicable, can be found in Section 2.
Specific Target Organ Toxicity - single exposure:	This information, if applicable, can be found in Section 2.
Specific Target Organ Toxicity - repeated exposure:	This information, if applicable, can be found in Section 2.

Toxicological Data:

Ingredient:

cyclohexylamine

morpholine

Data:

Oral LD50: 11 mg/kg (rat)

Dermal LD50: 277 mg/kg (rabbit)

Inhalation LC50: 7.5 mg/L (rat)

Oral LD50: 1900 mg/kg (rat)

Dermal LD50: 500 mg/kg (rabbit)

Other Toxicological Information on Ingredients:

12. ECOLOGICAL INFORMATION

Ecotoxicity (aquatic and terrestrial, where available):	not available
Persistence and degradability:	not available
Bioaccumulative potential:	not available
Mobility in soil:	not available
Other adverse effects:	not available
Ecological Information on Ingredients:	not available

13. DISPOSAL CONSIDERATIONS

Waste disposal: Disposal of all waste must be done according to local, provincial and federal regulations.

14. TRANSPORT INFORMATION

TDG classification: UN 2920; CORROSIVE LIQUID, FLAMMABLE, N.O.S. (CYCLOHEXYLAMINE, MORPHOLINE); CLASS 8 (3); PG II

15. REGULATORY INFORMATION

This product has been classified in accordance with the hazard criteria of the Hazardous Products Regulations (HPR) and the SDS contains all the information required by the HPR.

16. PREPARATION INFORMATION

Prepared by: Technical Services Department, Ostrem Chemical Co. Ltd., Ph.: 780-440-1911

Date of Preparation: February 09, 2017

Date of Revision: January 31, 2018

This Safety Data Sheet may not be changed or altered in any way without the express knowledge and permission of Ostrem Chemical Co. Ltd.

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