

MATERIAL SAFETY DATA SHEET

1. IDENTIFICATION

OSTREM CHEMICAL CO. LTD.
2310 - 80 AVENUE
EDMONTON AB T6P 1N2

Phone: 780-440-1911 or 780-446-0177
In Case of Emergency Only:
phone CANUTEC at (613) 996-6666

Product name: 3200 HD LIQUID STEAM

Code: K556

Other name:

Distributed by: Acklands-Grainger Inc.

Product use:

Date completed: April 01, 2014

2. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient	%W/W	CAS number
Monoethanolamine	1-5	141-43-5

3. HAZARDS IDENTIFICATION

Eye irritant. Harmful if swallowed.

4. FIRST AID MEASURES

Inhalation: Remove from exposure. Get fresh air.

Ingestion: Do not induce vomiting. If irritation persists, seek medical attention.

Eye contact: Flush with plenty of water for 15 minutes. Get medical attention if irritation persists.

Skin contact: Remove contaminated clothing and flush with plenty of water.

5. FIRE - FIGHTING MEASURES

Flash point (test method): Not applicable

Flammable limits (%): Non-flammable

Lower: Not applicable

Upper: Not applicable

Fire extinguishing substances: Use extinguishing media appropriate for surrounding fire.

Autoignition temperatures: Not applicable

Hazardous combustion products: May liberate carbon monoxide, carbon dioxide and oxides of sodium.

Explosion data:

Sensitivity to mechanical impact: Not applicable

Sensitivity to static discharge: Not applicable

Special firefighting procedures: As for surrounding fire. Fire fighters should wear full protective clothing and self contained breathing equipment.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions: Wear appropriate protective equipment.

Environmental precautions: Prevent from entering sewers, waterways or low areas.

Methods for 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

Handling: Do not ingest. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling.

Storage: Keep out of reach of children. Keep container tightly closed. Store in a cool, dry area.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

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

Eye protection: Chemical goggles. Wear a face shield if splashing hazards exists.

Other protection: Wear protective clothing as necessary to prevent skin contact.

Exposure limits:

INGREDIENT	ACGIH	OSHA	Other
Monoethanolamine	TLV TWA: 3 ppm 8 hours		
	TLV STEL: 6 ppm 15 minutes		

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state:	Liquid	Solubility in water:	Complete
Boiling point:	100C	Vapour pressure:	Not available
Vapour density:	Not available	Evaporation rate:	Not available
Freezing point:	Not available	Odour threshold:	Not available
Sp. Gravity:	1.016	pH:	11.5
Appearance & odour:	green, viscous liquid with pleasant odour		

10. STABILITY AND REACTIVITY

Stability: Stable

Conditions of instability: Not available

Incompatibility: () Water (X) Oxidizers () Acid () Base () Other

Conditions of reactivity:

Hazardous decomposition products: Not available

11. TOXICOLOGICAL PROPERTIES

POTENTIAL ACUTE HEALTH EFFECTS

Inhalation: Irritating to respiratory system.

Ingestion: May be harmful if swallowed.

Eye contact: May cause mild to severe irritation such as stinging, tearing, redness and swelling of the eyes.

Skin contact: May cause skin irritation.

Skin absorption: Not available

POTENTIAL CHRONIC HEALTH EFFECTS:

Inhalation:	Repeat or prolonged exposure may cause damage to lungs.
Ingestion:	Not available
Eye contact:	Not available
Skin contact:	Not available
Skin absorption:	Not available
Irritancy of product:	See WHMIS criteria
Sensitization of product:	Not available
Carcinogenicity:	IARC (1, 2A or 2B) No known significant effects. ACGIH: (A1, A2 or A3) No known significant effects.
Reproductive toxicity:	No known significant effects.
Teratogenicity:	No known significant effects.
Mutagenicity:	No known significant effects.
Synergistic product:	Not available

HAZARDOUS INGREDIENTS

Monoethanolamine

CAS NO.

141-43-5

TOXICITY DATALD₅₀ Oral (rat) 1090 mg/kgLD₅₀ Dermal (rabbit) 1000 mg/kg

12. ECOLOGICAL INFORMATION**Ecotoxicological information:** Not available**Other information:**

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

14. TRANSPORT INFORMATION**TDG classification:** Not regulated

15. REGULATORY INFORMATION**WHMIS:** D2B Other toxic effectsThis product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

16. PREPARATION INFORMATION**Prepared by:** Technical Services Department, Ostrem Chemical Co. Ltd., Ph: (780) 440-1911