MATERIAL SAFETY DATA SHEET

1. IDENTIFICATION

OSTREM CHEMICAL CO. LTD. Phone: 780-440-1911 or 780-446-0177

2310 - 80 AVENUE In Case of Emergency Only:

EDMONTON AB T6P 1N2 phone CANUTEC at (613) 996-6666

Product name: NO.20 BOILER COMPOUND Code: S743

Other name: Distributed by:

Product use: boiler water treatment

Date completed: April 01, 2014

2. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient	%W/W	CAS number
sodium hydroxide (50%)	<2	1310-73-2
tetrasodium salt of ethylene diamine tetraacetic acid (EDTA)	3-7	64-02-8
methylene phosphonic acid, sodium salt	1-5	20592-85-2

3. HAZARDS IDENTIFICATION

Eye irritant, harmful if swallowed

4. FIRST AID MEASURES

Inhalation: Remove from exposure. Get fresh air.

Ingestion: Induce vomiting only on the direct advice of a poison control centre. Drink 1-2 glasses of

water. Never give anything by mouth to an unconscious person. Get medical attention.

Eye contact: Flush with plenty of water for at least 15 minutes. Get medical attention.

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

5. FIRE - FIGHTING MEASURES

Flash point (test method):

Flammable limits (%):

Lower:

Upper:

Not applicable

Not applicable

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

sodium hydroxide (50% Sol.) 2 mg/m3 Ceil. Not available

tetrasodium salt of ethylene diamine Not available

tetraacetic acid (EDTA)

methylene phosphonic acid, sodium salt Not available

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state: Liquid Solubility in water: Complete Not available **Boiling point:** Vapour pressure: Not available Vapour density: Not available **Evaporation rate:** Not available Freezing point: Not available **Odour threshold:** Not available Sp. Gravity: 1.103 11.5; 1:400: 8-8.5 pH:

Appearance & odour: clear, pale yellow liquid

10. STABILITY AND REACTIVITY

Stability: Stable Conditions of instability: Not available

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

Conditions of reactivity: Reacts with acids and metals

Hazardous decomposition products: Not available

11. TOXICOLOGICAL PROPERTIES

POTENTIAL ACUTE HEALTH EFFECTS

Inhalation: Irritating to respiratory system

Ingestion: Swallowing small amounts of this material is not likely to cause harmful effects. Large

amounts may cause stomach and intestinal irritation, abdominal pain and vomiting.

Eye contact: May cause mild to severe irritation.

Skin contact: May cause irritation.

Skin absorption: Not available

POTENTIAL CHRONIC HEALTH EFFECTS:

Inhalation: Repeat or prolonged exposure may cause damage to lungs.

Ingestion:Not availableEye contact:Not availableSkin contact:Not applicableSkin absorption:Not applicable

Irritancy of product: See WHMIS criteria

Sensitization of product:

Carcinogenicity: IARC (1, 2A or 2B)

ACGIH: (A1, A2 or A3)

Reproductive toxicity:

Teratogenicity: Mutagenicity:

Synergistic product:

HAZARDOUS INGREDIENTS CAS NO. TOXICITY DATA

sodium hydroxide (50%) 1310-73-2 LD_{50} oral (rabbit) 365 mg/kg tetrasodium salt of ethylene diamine 64-02-8 LD_{50} Oral (rat) >2000 mg/kg

tetraacetic acid (EDTA)

LD₅₀ Dermal (rabbit) 1350 mg/kg

Not available

Not available

No known significant effects.

methylene phosphonic acid, sodium salt 20592-85-2 LD₅₀ Oral (rat) 2910 mg/kg

LD₅₀ Dermal (rabbit) >6310 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 Effects

This 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