SAFETY DATA SHEET

1. Identification

Product identifier	**BOILERMATE 7100P**
Other means of identification	Not available.
Recommended use	Boiler Water Treatment
Recommended restrictions	None known.

Manufacturer/Importer/Supplier/Distributor information

Manufacturer

Company name	Miura Canada Co., Ltd.
Address	4025 Sladeview Crescent, Unit 5&6 Mississauga, ON L5L 5Y1 Canada
Telephone	905-607-4289 905-607-8329 (Fax) 1-800-666-2182 (Toll Free)
E-mail	canada-customersupport@miuraz.com

Emergency phone number	Not available.
Supplier	See above.

2. Hazard identification

Physical hazards	Not classified.	
Health hazards	Skin corrosion/irritation	Category 1
	Serious eye damage/eye irritation	Category 1
Environmental hazards	Not classified.	
WHMIS 2015 defined hazards	Not classified	

Label elements

Signal word	Danger
Hazard statement	Causes severe skin burns and eye damage.

Precautionary statement

Prevention	Do not breathe mist or vapor. Wash thoroughly after handling. Wear protective gloves, protective clothing, eye protection and face protection.
Response	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. Immediately call a POISON CENTER or doctor. Wash contaminated clothing before reuse. Specific treatment (see information on this label). IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. IF INHALED: Remove person to fresh air and keep comfortable for breathing. IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
Storage	Store locked up.
Disposal	Dispose of container in accordance with local, regional, national and international regulations.

WHMIS 2015: Health Hazard(s) not otherwise classified (HHNOC)	None known
WHMIS 2015: Physical Hazard(s) not otherwise classified (PHNOC)	None known
Hazard(s) not otherwise classified (HNOC)	None known.

Supplemental information None.

3. Composition/Information on ingredients

Mixture

Chemical name	Common name and synonyms	CAS number	%
Sodium hydroxide		1310-73-2	30 - 60 *

All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

Composition comments *CANADA GHS: The exact percentage (concentration) of composition has been withheld as a trade secret.
US GHS: The exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200.

4. First-aid measures

Inhalation IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or doctor.

Skin contact IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. Immediately call a POISON CENTER or doctor. Wash contaminated clothing before reuse. Specific treatment (see information on this label).

Eye contact 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.

Ingestion IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor.

Most important symptoms/effects, acute and delayed 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.

Indication of immediate medical attention and special treatment needed Treat patient symptomatically.

General information If you feel unwell, seek medical advice (show the label where possible). Show this safety data sheet to the doctor in attendance. Avoid contact with eyes and skin. Wear rubber gloves and chemical splash goggles. Keep out of reach of children.

5. Fire-fighting measures

Suitable extinguishing media Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2).

Unsuitable extinguishing media Not available.

Specific hazards arising from the chemical Firefighters should wear a self-contained breathing apparatus.

Special protective equipment and precautions for firefighters Firefighters should wear full protective clothing including self-contained breathing apparatus.

Fire-fighting equipment/instructions Move containers from fire area if you can do so without risk.

Specific methods Use standard firefighting procedures and consider the hazards of other involved materials.

Hazardous combustion products May include and are not limited to: Oxides of sodium.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures Keep people away from and upwind of spill/leak. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Do not breathe mist or vapor. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

Methods and materials for containment and cleaning up Stop leak if you can do so without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water. Clean surface thoroughly to remove residual contamination. Never return spills to original containers for re-use. Prevent entry into waterways, sewer, basements or confined areas. For waste disposal, see section 13 of the SDS.

Environmental precautions Do not discharge into lakes, streams, ponds or public waters.

7. Handling and storage

Precautions for safe handling

Avoid contact with eyes, skin and clothing.
Wear appropriate personal protective equipment.
Do not breathe mist or vapor.
Use only with adequate ventilation.
Observe good industrial hygiene practices.
Wash thoroughly after handling.
When using do not eat or drink.

Conditions for safe storage, including any incompatibilities

Store away from incompatible materials (see Section 10 of the SDS).
Keep out of the reach of children.
Store locked up.

8. Exposure controls/Personal protection

Occupational exposure limits

Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2)

Components	Type	Value
Sodium hydroxide (CAS 1310-73-2)	Ceiling	2 mg/m3

Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended)

Components	Type	Value
Sodium hydroxide (CAS 1310-73-2)	Ceiling	2 mg/m3

Canada. Manitoba OELs (Reg. 217/2006, The Workplace Safety And Health Act)

Components	Type	Value
Sodium hydroxide (CAS 1310-73-2)	Ceiling	2 mg/m3

Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents)

Components	Type	Value
Sodium hydroxide (CAS 1310-73-2)	Ceiling	2 mg/m3

Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety)

Components	Type	Value
Sodium hydroxide (CAS 1310-73-2)	Ceiling	2 mg/m3

Canada. Saskatchewan OELs (Occupational Health and Safety Regulations, 1996, Table 21)

Components	Type	Value
Sodium hydroxide (CAS 1310-73-2)	Ceiling	2 mg/m3

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value
Sodium hydroxide (CAS 1310-73-2)	PEL	2 mg/m3

US. ACGIH Threshold Limit Values

Components	Type	Value
Sodium hydroxide (CAS 1310-73-2)	Ceiling	2 mg/m3

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
Sodium hydroxide (CAS 1310-73-2)	Ceiling	2 mg/m3

Biological limit values

No biological exposure limits noted for the ingredient(s).

Exposure guidelines

See above

Canada - British Columbia OELs: Skin designation

Mercury (CAS 7439-97-6) — Can be absorbed through the skin.

Canada - Manitoba OELs: Skin designation

Mercury (CAS 7439-97-6) — Can be absorbed through the skin.

Canada - Ontario OELs: Skin designation

Mercury (CAS 7439-97-6) Can be absorbed through the skin.

Canada - Quebec OELs: Skin designation

Mercury (CAS 7439-97-6) Can be absorbed through the skin.

Canada - Saskatchewan OELs: Skin designation

Mercury (CAS 7439-97-6) Can be absorbed through the skin.

US ACGIH Threshold Limit Values: Skin designation

Mercury (CAS 7439-97-6) Can be absorbed through the skin.

US NIOSH Pocket Guide to Chemical Hazards: Skin designation

Mercury (CAS 7439-97-6) Can be absorbed through the skin.

Appropriate engineering controls Ensure adequate ventilation.

Individual protection measures, such as personal protective equipment

Eye/face protection Wear safety glasses with side shields (or goggles).

Skin protection

Hand protection Impervious gloves. Confirm with reputable supplier first.

Other As required by employer code.

Respiratory protection Where exposure guideline levels may be exceeded, use an approved NIOSH respirator. Respirator should be selected by and used under the direction of a trained health and safety professional following requirements found in OSHA's respirator standard (29 CFR 1910.134), CAN/CSA-Z94.4 and ANSI's standard for respiratory protection (Z88.2).

Thermal hazards Not applicable.

General hygiene considerations Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and immediately after handling the product. When using do not eat or drink.

9. Physical and chemical properties

Appearance	Clear to slightly turbid
Physical state	Liquid.
Form	Liquid
Color	Colorless
Odor	Odorless
Odor threshold	Not applicable
pH	13 (0.5% solution @ 25°C)
Melting point/freezing point	41 - 53.6 °F (5 - 12 °C)
Initial boiling point and boiling range	266 - 284 °F (130 - 140 °C)
Pour point	Not available.
Specific gravity	1.482 - 1.53
Partition coefficient (n-octanol/water)	Not available.
Flash point	Not applicable
Evaporation rate	Not available
Flammability (solid, gas)	Not applicable.
Upper/lower flammability or explosive limits	
Flammability limit - lower (%)	Not applicable
Flammability limit - upper (%)	Not applicable
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	1 mmHg
Vapor density	Not available
Relative density	Not available.
Solubility(ies)	Miscible
Auto-ignition temperature	Not applicable
Decomposition temperature	Not available.
Viscosity	Not available.

Other information

Molecular weight 40.01 g/mol

10. Stability and reactivity

Reactivity May react with incompatible materials.

Possibility of hazardous reactions Hazardous polymerization does not occur.

Chemical stability Stable under recommended storage conditions.

Conditions to avoid Do not mix with other chemicals.

Incompatible materials Oxidizing agents. Acids. Caustics. Reducing agents. Organic materials.

Hazardous decomposition products May include and are not limited to: Oxides of sodium.

11. Toxicological information

Routes of exposure Eye, Skin contact, Inhalation, Ingestion.

Information on likely routes of exposure

Ingestion May cause stomach distress, nausea or vomiting.

Inhalation Prolonged inhalation may be harmful.

Skin contact Causes severe skin burns.

Eye contact Causes serious eye damage.

Symptoms related to the physical, chemical and toxicological characteristics 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.

Information on toxicological effects

Acute toxicity Causes severe skin burns and eye damage.

Components	Species	Test Results
Sodium hydroxide (CAS 1310-73-2)		
Acute		
Dermal		
LD50	Not available	
Inhalation		
LC50	Not available	
Oral		
LD50	Not available	

Skin corrosion/irritation Causes severe skin burns and eye damage.

Exposure minutes Not available.

Erythema value Not available.

Oedema value Not available.

Serious eye damage/eye irritation Causes serious eye damage.

Corneal opacity value Not available.

Iris lesion value Not available.

Conjunctival reddening value Not available.

Conjunctival oedema value Not available.

Recover days Not available.

Respiratory or skin sensitization

Canada - Alberta OELs: Irritant

Sodium hydroxide (CAS 1310-73-2) Irritant

Respiratory sensitization Not available.

Skin sensitization This product is not expected to cause skin sensitization.

Mutagenicity Not classified.

Carcinogenicity See below.

IARC Monographs. Overall Evaluation of Carcinogenicity

Mercury (CAS 7439-97-6) Volume 58 - 3 Not classifiable as to carcinogenicity to humans.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1052)

Not listed.

Reproductive toxicity	Not classified.
Teratogenicity	Not classified.
Specific target organ toxicity - single exposure	Not classified.
Specific target organ toxicity - repeated exposure	Not classified.
Aspiration hazard	Not classified.
Chronic effects	Prolonged inhalation may be harmful.

12. Ecological information

Ecotoxicity See below

Ecotoxicological data

Components		Species	Test Results
Sodium hydroxide (CAS 1310-73-2)			
Aquatic			
Crustacea	EC50	Water flea (Ceriodaphnia dubia)	34.59 - 47.13 mg/L, 48 hours
Fish	LC50	Western mosquitofish (Gambusia affinis)	125 mg/L, 96 hours

Persistence and degradability	No data is available on the degradability of this product.
Bioaccumulative potential	No data available.
Mobility in soil	No data available.
Mobility in general	Not available.
Other adverse effects	No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Disposal instructions	Dispose of contents/container in accordance with local/regional/national/international regulations.
Local disposal regulations	Dispose in accordance with all applicable regulations.
Hazardous waste code	The waste code should be assigned in discussion between the user, the producer and the waste disposal company.
Waste from residues / unused products	Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
Contaminated packaging	Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

14. Transport information

Transport of Dangerous Goods (TDG) Proof of Classification Classification Method: Classified as per Part 2, Sections 2.1 – 2.8 of the Transportation of Dangerous Goods Regulations. If applicable, the technical name and the classification of the product will appear below.

U.S. Department of Transportation (DOT)

Basic shipping requirements:

UN number	UN1824
Proper shipping name	Sodium hydroxide solution
Hazard class	8
Packing group	II
Special provisions	B2, IB2, N34, T7, TP2

Transportation of Dangerous Goods (TDG - Canada)

Basic shipping requirements:

UN number	UN1824
Proper shipping name	SODIUM HYDROXIDE SOLUTION
Hazard class	8
Packing group	II

DOT

TDG

15. Regulatory information

Canadian federal regulations This product has been classified in accordance with the hazard criteria of the HPR and the SDS contains all the information required by the HPR.

Canada CEPA Schedule I: Listed substance

Mercury (CAS 7439-97-6) Listed.

Export Control List (CEPA 1999, Schedule 3)

Mercury (CAS 7439-97-6) Substance subject to notification or consent.

Greenhouse Gases

Not listed.

Precursor Control Regulations

Not regulated.

WHMIS 2015 Exemptions Controlled

US federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Mercury (CAS 7439-97-6) 1.0 % One-Time Export Notification only.

CERCLA Hazardous Substance List (40 CFR 302.4)

Mercury (CAS 7439-97-6) Listed.
Sodium hydroxide (CAS 1310-73-2) Listed.

SARA 304 Emergency release notification

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1052)

Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

SARA 302 Extremely hazardous substance No

SARA 311/312 Hazardous chemical Yes

Classified hazard categories
Acute toxicity (any route of exposure)
Skin corrosion or irritation
Serious eye damage or eye irritation

SARA 313 (TRI reporting)

Not regulated.

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Mercury (CAS 7439-97-6)

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Clean Water Act (CWA) Section 112(r) (40 CFR 68.130) Hazardous substance

US state regulations See below

US - California Hazardous Substances (Director's): Listed substance

Mercury (CAS 7439-97-6) Listed.
Sodium hydroxide (CAS 1310-73-2) Listed.

US - Illinois Chemical Safety Act: Listed substance

Mercury (CAS 7439-97-6)
Sodium hydroxide (CAS 1310-73-2)

US - Louisiana Spill Reporting: Listed substance

Mercury (CAS 7439-97-6) Listed.
Sodium hydroxide (CAS 1310-73-2) Listed.

US - Michigan Critical Materials Register: Parameter number

Mercury (CAS 7439-97-6)

US - Minnesota Haz Subs: Listed substance

Mercury (CAS 7439-97-6) Listed.
Sodium hydroxide (CAS 1310-73-2) Listed.

US - North Carolina Toxic Air Pollutants: Listed substance

Mercury (CAS 7439-97-6)

US - Texas Effects Screening Levels: Listed substance

Mercury (CAS 7439-97-6) Listed.
Sodium hydroxide (CAS 1310-73-2) Listed.

US - Washington Chemical of High Concern to Children: Listed substance

Mercury (CAS 7439-97-6)

US. Massachusetts RTK - Substance List

Mercury (CAS 7439-97-6)
Sodium hydroxide (CAS 1310-73-2)

US. New Jersey Worker and Community Right-to-Know Act

Mercury (CAS 7439-97-6)
Sodium hydroxide (CAS 1310-73-2)

US. Pennsylvania Worker and Community Right-to-Know Law

Mercury (CAS 7439-97-6)
Sodium hydroxide (CAS 1310-73-2)

US. Rhode Island RTK

Mercury (CAS 7439-97-6)
Sodium hydroxide (CAS 1310-73-2)

US. California Proposition 65

WARNING: This product can expose you to chemicals including mercury, which is known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

California Proposition 65 - CRT: Listed date/Developmental toxin

Mercury (CAS 7439-97-6) Listed: July 1, 1990

Inventory status

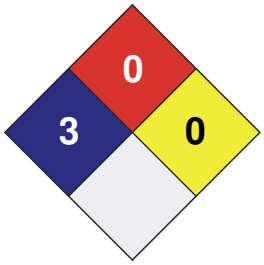
Country(s) or region	Inventory name	On inventory (yes/no)*
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

16. Other information

LEGEND	
Severe	4
Serious	3
Moderate	2
Slight	1
Minimal	0

HEALTH	/ 3
FLAMMABILITY	0
PHYSICAL HAZARD	0
PERSONAL PROTECTION	X



Disclaimer	Information contained herein was obtained from sources considered technically accurate and reliable. While every effort has been made to ensure full disclosure of product hazards, in some cases data is not available and is so stated. Since conditions of actual product use are beyond control of the supplier, it is assumed that users of this material have been fully trained according to the requirements of all applicable legislation and regulatory instruments. No warranty, expressed or implied, is made and supplier will not be liable for any losses, injuries or consequential damages which may result from the use of or reliance on any information contained in this document.
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Further information	For an updated SDS, please contact the supplier/manufacturer listed on the first page of the document.
Other information	For an updated SDS, please contact the supplier/manufacturer listed on the first page of the document.