SAFETY DATA SHEET BM1 Inhibitor Pint & Gallon

According to Appendix D, OSHA Hazard Communication Standard 29 CFR §1910.1200

1. Identification

Product identifier

Product name

BM1 Inhibitor Pint & Gallon

Recommended use of the chemical and restrictions on use

Application

Residential central heating additive (scale and corrosion inhibitor)

Uses advised against

No specific uses advised against are identified.

Details of the supplier of the safety data sheet

Supplier

Eclipse Tools North America Inc. Unit 9,

442 Millen Road, Stoney Creek, Ontario L8E 6H2 Canada

T: 1-800-260-2124 F: 1-800-260-1410

E: sales@eclipsetoolsinc.com

Emergency telephone number

Emergency telephone

1-800-260-2124 (Mon - Fri 8:00 - 16:30 EST)

2. Hazard(s) identification

Classification of the substance or mixture

OSHA Regulatory Status

This Product is Not Hazardous under the OSHA Hazard Communication Standard.

Physical hazards

Not Classified

Health hazards

Not Classified

Environmental hazards

Not Classified

Label elements

Hazard statements

NC Not Classified

Precautionary statements

P102 Keep out of reach of children.

P501 Dispose of contents/ container in accordance with national regulations.

Other hazards

This product does not contain any substances classified as PBT or vPvB.

3. Composition/information on ingredients

Mixtures

Triethanolamine

3 - < 5%

CAS number: 102-71-6

Substance with National workplace exposure limits.

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Ingredient notes The exact percentage/concentration is withheld as a trade secret in accordance with 29 CFR

1910.1200.

4. First-aid measures

Description of first aid measures

General information Get medical attention if any discomfort continues. Show this Safety Data Sheet to the medical

personnel.

Inhalation Move affected person to fresh air and keep warm and at rest in a position comfortable for

breathing. Maintain an open airway. Loosen tight clothing such as collar, tie or belt.

Ingestion Rinse mouth thoroughly with water. Move affected person to fresh air and keep warm and at

rest in a position comfortable for breathing. Give a few small glasses of water or milk to drink. Stop if the affected person feels sick as vomiting may be dangerous. Do not induce vomiting unless under the direction of medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious

person.

Skin Contact Remove affected person from source of contamination. Rinse immediately with plenty of

water.

Eye contact Rinse immediately with plenty of water. Remove any contact lenses and open eyelids wide

apart. Continue to rinse for at least 10 minutes.

Protection of first aiders First aid personnel should wear appropriate protective equipment during any rescue.

Most important symptoms and effects, both acute and delayed

General information See Section 11 for additional information on health hazards. The severity of the symptoms

described will vary dependent on the concentration and the length of exposure.

Inhalation Prolonged inhalation of high concentrations may damage respiratory system.

Ingestion Gastrointestinal symptoms, including upset stomach.

Skin contact Prolonged contact may cause dryness of the skin.

Eye contact May cause temporary eye irritation.

Indication of immediate medical attention and special treatment needed

Notes for the doctor Treat symptomatically.

Specific treatments No special treatment required.

5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water fog. Use fire-

extinguishing media suitable for the surrounding fire.

Unsuitable extinguishing

media

Do not use water jet as an extinguisher, as this will spread the fire.

Special hazards arising from the substance or mixture

Specific hazards Containers can burst violently or explode when heated, due to excessive pressure build-up.

Hazardous combustion

products

Thermal decomposition or combustion products may include the following substances:

Harmful gases or vapors.

Advice for firefighters

Protective actions during

firefighting

Avoid breathing fire gases or vapors. Evacuate area. Cool containers exposed to heat with water spray and remove them from the fire area if it can be done without risk. Cool containers exposed to flames with water until well after the fire is out. If a leak or spill has not ignited, use water spray to disperse vapors and protect men stopping the leak.

Special protective equipment for firefighters

Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing. Standard Firefighter's clothing including helmets, protective boots and gloves will provide a basic level of protection for chemical incidents.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal precautions Keep unnecessary a

Keep unnecessary and unprotected personnel away from the spillage. Wear protective clothing as described in Section 8 of this safety data sheet. Follow precautions for safe handling described in this safety data sheet. Wash thoroughly after dealing with a spillage.

Environmental precautions

Environmental precautions

Avoid discharge to the aquatic environment. Spillages or uncontrolled discharges into watercourses must be reported immediately to the Environmental Agency or other appropriate regulatory body.

Methods and material for containment and cleaning up

Methods for cleaning up

Wear protective clothing as described in Section 8 of this safety data sheet. Reuse or recycle products wherever possible. Absorb spillage to prevent material damage. Flush contaminated area with plenty of water. Wash thoroughly after dealing with a spillage. Dispose of contents/container in accordance with national regulations.

Reference to other sections

For personal protection, see Section 8. For waste disposal, see Section 13.

7. Handling and storage

Precautions for safe handling

Usage precautions

Keep out of the reach of children. Read and follow manufacturer's recommendations. Keep away from food, drink and animal feeding stuffs. Wear protective clothing as described in Section 8 of this safety data sheet. Handle all packages and containers carefully to minimize spills. Keep container tightly sealed when not in use.

Advice on general occupational hygiene

Wash promptly if skin becomes contaminated. Take off contaminated clothing and wash before reuse. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Wash at the end of each work shift and before eating, smoking and using the toilet. Change work clothing daily before leaving workplace.

Conditions for safe storage, including any incompatibilities

Storage precautions

Store away from incompatible materials (see Section 10). Store in tightly-closed, original container in a dry, cool and well-ventilated place. Store at temperatures above 5°C. Avoid freezing.

Storage class

Unspecified storage.

Specific end uses(s)

Specific end use(s)

The identified uses for this product are detailed in Section 1.

8. Exposure controls/Personal protection

Control parameters

Occupational exposure limits

Triethanolamine

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Long-term exposure limit (8-hour TWA): ACGIH 5 mg/m³

ACGIH = American Conference of Governmental Industrial Hygienists.

Ingredient comments

The constituents listed are the only constituents of the product which have a PEL, TLV or other recommended exposure limit. At this time, the other constituents have no known exposure limits.

Exposure controls

Protective equipment





Appropriate engineering controls

Provide adequate ventilation. Good general ventilation should be adequate to control worker exposure to airborne contaminants.

Eye/face protection

Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible. Personal protective equipment for eye and face protection should comply with OSHA 1910.133. The following protection should be worn: Chemical splash goggles.

Hand protection

Chemical-resistant, impervious gloves complying with an approved standard should be worn if a risk assessment indicates skin contact is possible. The most suitable glove should be chosen in consultation with the glove supplier/manufacturer, who can provide information about the breakthrough time of the glove material. Wear protective gloves made of the following material: Nitrile rubber. To protect hands from chemicals, gloves should comply with OSHA 1910.138 and be demonstrated to be impervious to the chemical and resist degradation. Considering the data specified by the glove manufacturer, check during use that the gloves are retaining their protective properties and change them as soon as any deterioration is detected. Frequent changes are recommended.

Other skin and body protection

Appropriate footwear and additional protective clothing complying with an approved standard should be worn if a risk assessment indicates skin contamination is possible.

Hygiene measures

Provide eyewash station and safety shower. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse. Clean equipment and the work area every day. Good personal hygiene procedures should be implemented. Wash at the end of each work shift and before eating, smoking and using the toilet. When using do not eat, drink or smoke.

Respiratory protection

Respiratory protection complying with an approved standard should be worn if a risk assessment indicates inhalation of contaminants is possible. Provide adequate ventilation. Large Spillages: If ventilation is inadequate, suitable respiratory protection must be worn.

Environmental exposure controls

Not regarded as dangerous for the environment.

9. Physical and chemical properties

Information on basic physical and chemical properties

Appearance

Liquid.

Color

Straw.

Odor

Mild. Aromatic.

Odor threshold

Not available.

pН

pH (concentrated solution): 8

Meiting point

-3°C/26.6°F

Initial boiling point and range

100°C/212°F

Flash point

180°C/356°F

Evaporation rate

Not available.

Upper/lower flammability or

explosive limits

Not available.

Vapor pressure

23 hPa @ 20°C/68°F 17.3 mm Hg @ 20°C/68°F

Vapor density

Not available.

Relative density

1.07

Bulk density

8.929 lb/Ga

Solubility(ies)

Soluble in water.

Partition coefficient

Not available.

Auto-ignition

temperature

Decomposition Temperature Not available.

305°C/581°F

Viscosity

Not applicable.

Explosive properties

Not considered to be explosive.

Oxidizing properties

Does not meet the criteria for classification as oxidizing.

Other information

No information required.

10. Stability and reactivity

Reactivity

See the other subsections of this section for further details.

Stability

Stable at normal ambient temperatures and when used as recommended. Stable under the

prescribed storage conditions.

Possibility of hazardous

reactions

No potentially hazardous reactions known.

Conditions to avoid

There are no known conditions that are likely to result in a hazardous situation.

Materials to avoid

No specific material or group of materials is likely to react with the product to produce a

hazardous situation.

Hazardous decomposition

products

Does not decompose when used and stored as recommended. Thermal decomposition or combustion products may include the following substances: Harmful gases or vapors.

11. Toxicological information

Information on toxicological effects

Toxicological effects

Not regarded as a health hazard under current legislation.

Acute toxicity - oral

Notes (oral LD₅₀)

Based on available data the classification criteria are not met,

Acute toxicity - dermal

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Notes (dermal LD₆₀) Based on available data the classification criteria are not met.

Acute toxicity - inhalation

Notes (inhalation LC_∞) Based on available data the classification criteria are not met.

Skin corrosion/irritation

Animal data Based on available data the classification criteria are not met.

Serious eye damage/irritation

Serious eye damage/irritation Based on available data the classification criteria are not met.

Respiratory sensitization

Respiratory sensitization Based on available data the classification criteria are not met.

Skin sensitization

Skin sensitization Based on available data the classification criteria are not met.

Germ cell mutagenicity

Genotoxicity - in vitro Based on available data the classification criteria are not met.

Carcinogenicity

Carcinogenicity Based on available data the classification criteria are not met.

IARC carcinogenicity Contains a substance which may be potentially carcinogenic. IARC Group 3 Not classifiable

as to its carcinogenicity to humans.

Reproductive toxicity

Reproductive toxicity - fertility Based on available data the classification criteria are not met.

Reproductive toxicity -

Based on available data the classification criteria are not met.

development

Specific target organ toxicity - single exposure

STOT - single exposure Not classified as a specific target organ toxicant after a single exposure.

Specific target organ toxicity - repeated exposure

Aspiration hazard

Aspiration hazard Based on available data the classification criteria are not met.

General information No specific health hazards known. The severity of the symptoms described will vary

dependent on the concentration and the length of exposure.

Inhalation Prolonged inhalation of high concentrations may damage respiratory system.

Ingestion Gastrointestinal symptoms, including upset stomach.

Skin Contact Prolonged contact may cause dryness of the skin.

Eye contact May cause temporary eye irritation.

Route of exposure Ingestion Inhalation Skin and/or eye contact

Target Organs No specific target organs known.

12. Ecological information

Ecotoxicity Not regarded as dangerous for the environment. However, large or frequent spills may have

hazardous effects on the environment.

Toxicity

Based on available data the classification criteria are not met,

Persistence and degradability

Persistence and degradability

The degradability of the product is not known.

Bioaccumulative potential

Bio-Accumulative Potential

No data available on bioaccumulation.

Partition coefficient

Not available.

Mobility in soil

Mobility

No data available.

Other adverse effects

Other adverse effects

None known.

13. Disposal considerations

Waste treatment methods

General information

Reuse or recycle products wherever possible. Disposal of this product, process solutions, residues and by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any local authority requirements.

Disposal methods

Dispose of surplus products and those that cannot be recycled via a licensed waste disposal contractor. Waste packaging should be collected for reuse or recycling. Incineration or landfill should only be considered when recycling is not feasible. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of the local water authority.

14. Transport information

General

The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, DOT).

UN Number

UN No. (International)

Not applicable.

UN No. (DOT)

Not applicable.

UN proper shipping name

Proper shipping name

(International)

Not applicable.

Proper shipping name (DOT)

Not applicable.

Transport hazard class(es)

Transport Labels

(International)

No transport warning sign required.

DOT transport labels

No transport warning sign required.

Packing group

Packing group (International) Not applicable.

DOT packing group

Not applicable.

Environmental hazards

Environmentally Hazardous Substance

No.

Special precautions for user

Not applicable.

DOT reportable quantity

Not applicable.

DOT TIH Zone

Not applicable.

Transport in bulk according to Not applicable.

Annex II of MARPOL 73/78

and the IBC Code

15. Regulatory information

Regulatory Status

Classified in accordance with Appendix A, Appendix B and Appendix F of the OSHA Hazard

Communication Standard 29 CFR §1910.1200.

Regulatory References

OSHA Hazard Communication Standard 29 CFR §1910.1200

US Federal Regulations

SARA Section 302 Extremely Hazardous Substances Tier II Threshold Planning Quantities

None of the ingredients are listed or exempt.

CERCLA/Superfund, Hazardous Substances/Reportable Quantities (EPA)

None of the ingredients are listed or exempt.

SARA Extremely Hazardous Substances EPCRA Reportable Quantities

None of the ingredients are listed or exempt.

SARA 313 Emission Reporting

None of the ingredients are listed or exempt.

CAA Accidental Release Prevention

None of the ingredients are listed or exempt.

FDA - Essential Chemical

None of the ingredients are listed or exempt.

FDA - Precursor Chemical

None of the ingredients are listed or exempt.

SARA (311/312) Hazard Categories

None of the ingredients are listed or exempt.

OSHA Highly Hazardous Chemicals

None of the ingredients are listed or exempt.

US State Regulations

California Proposition 65 Carcinogens and Reproductive Toxins

None of the ingredients are listed or exempt.

California Air Toxics "Hot Spots" (A-I)

None of the ingredients are listed or exempt.

California Air Toxics "Hot Spots" (A-II)

None of the ingredients are listed or exempt.

California Directors List of Hazardous Substances

None of the ingredients are listed or exempt.

Massachusetts "Right To Know" List

The following ingredients are listed or exempt:

Triethanolamine

Rhode Island "Right To Know" List

The following ingredients are listed or exempt:

Propane-1,2-diol

Triethanolamine

Minnesota "Right To Know" List

The following ingredients are listed or exempt:

Propane-1,2-diol

Triethanolamine

New Jersey "Right To Know" List

The following ingredients are listed or exempt:

Propane-1,2-diol

Triethanolamine

Pennsylvania "Right To Know" List

The following ingredients are listed or exempt:

Propane-1,2-diol

Triethanolamine

Inventories

US - TSCA

All the ingredients are listed or exempt.

US - TSCA 12(b) Export Notification

None of the ingredients are listed or exempt.

16. Other information

Training advice Read and follow manufacturer's recommendations. Only trained personnel should use this

material.

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This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.