



SAFETY DATA SHEET

Z RUST RELEASE FOAMING PENETRANT

Print Date: 26-Apr-2019

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Version 2

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product identifier

Product Name Z Foam Release Foaming Penetrant

Other means of identification

Synonyms Z Foam Rust Release 492885

Recommended use of the chemical and restrictions on use

Uses advised against No information available

Details of the supplier of the safety data sheet

Supplier Address

Zircon Industries Incorporated
4920 Commerce Parkway #9
Cleveland, OH 44128
216-595-0200

E-mail address

staff@liquidheat.com

Emergency telephone number

Emergency Telephone InfoTrac 1-800-535-5053

2. HAZARDS IDENTIFICATION

Classification

OSHA Regulatory Status

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200).

Skin Corrosion / Irritation	Category 2
Serious Eye Irritation	Category 2A
STOT (Single exposure)	Category 3
Gasses under pressure	Category 1
Flammable Aerosol	Category 1

Label elements

Emergency Overview

DANGER



Hazard statements

Causes Skin Irritation
 Extremely Flammable Aerosol
 May be fatal if swallowed
 Causes eye damage/ irritation
 Contains Gas Under Pressure; may explode if heated
 May cause damage to organs through prolonged or repeated exposure

Precautionary Statements - Prevention

Flammable liquid and vapor
 May be fatal if swallowed and enters airway.
 Causes skin irritation.
 Use personal protective equipment as required.
 Pressurized container. Do not pierce or burn, even after use
 Wash face, hands and any exposed skin thoroughly after handling
 Do not eat, drink or smoke when using this product
 Avoid breathing dust/fume/gas/mist/vapors/spray
 Contaminated work clothing should not be allowed out of the workplace
 Wear protective gloves

Precautionary Statements - Response

IF EXPOSED or concerned: Get medical advice/attention
 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
 IF ON SKIN: Wash with plenty of soap and water
 If skin irritation or rash occurs: Get medical advice/attention
 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell
 Rinse mouth

Precautionary Statements - Storage

Store in well-ventilated area
 Do not expose to temperatures above 50C / 122F

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

Not Applicable

Unknown Acute Toxicity 0% of the substance or mixture consists of ingredient(s) of unknown toxicity

3. COMPOSITION/INFORMATION ON INGREDIENTS

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Chemical Name	CAS No.	Weight-%	Trade Secret
Mineral oil, petroleum distillates, solvent dewaxed heavy paraffinic	64742-52-5	40-90	*
Isoparaffinic Petroleum Distillate	64742-47-8	14-25	*
Isobutane	75-28-5	2-5	*
Propane	74-98-6	10-20	*
Butane	106-97-8	2-10	*

*The exact percentage (concentration) of composition has been withheld as a trade secret.

4. FIRST AID MEASURES

First aid measures

General advice

Immediate medical attention is required.

Eye contact

Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Keep eye wide open while rinsing. Call a physician immediately.

Skin Contact

Wash off immediately with soap and plenty of water.

Inhalation

Move to fresh air. Call a physician if symptoms develop or persist..

Ingestion

Rinse mouth. Get medical attention if symptoms occur.

Self-protection of the first aider

Use personal protective equipment as required. Avoid contact with skin, eyes or clothing.

Most important symptoms and effects, both acute and delayed

Symptoms

No information available.

Indication of any immediate medical attention and special treatment needed

Note to physicians

Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

Dry chemical, CO2 or water spray.

Unsuitable extinguishing media Do not use a solid water stream as it may scatter and spread fire.

Specific hazards arising from the chemical

During fire, gases hazardous to health may be formed.

Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions

Use personal protective equipment as required. Keep people away from and upwind of spill/leak.

Environmental precautions

Environmental precautions

Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. See Section 12 for additional ecological information.

Methods and material for containment and cleaning up

Methods for containment

Prevent further leakage or spillage if safe to do so. Cover powder spill with plastic sheet or tarp to minimize spreading. Dike far ahead of liquid spill for later disposal.

Methods for cleaning up

Cover liquid spill with sand, earth or other non-combustible absorbent material.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling Conditions for safe storage, including any incompatibilities	Avoid contact with skin, eyes or clothing. Use personal protective equipment as required.
Storage Conditions	Keep container tightly closed in a dry and well-ventilated place. Keep out of the reach of children.
Incompatible materials	None known based on information supplied.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines

NIOSH IDLH *Immediately Dangerous to Life or Health*

Appropriate engineering controls

Engineering Controls	Showers Eyewash stations Ventilation systems.
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Individual protection measures, such as personal protective equipment

Eye/face protection	Safety Glasses with Side Shields.
Skin and body protection	Wear protective gloves and protective clothing.
Respiratory protection	If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.
General Hygiene Considerations	When using do not eat, drink or smoke. Regular cleaning of equipment, work area and clothing is recommended. Avoid contact with skin, eyes or clothing. Wash hands thoroughly after handling. Keep away from food, drink and animal feeding stuffs.

Exposure Limits

Isoparaffinic Petroleum Distillate
 200 ppm 492 mg/m³ TLV ACGIH
 400 ppm 984 mg/m³ STEL ACGIH
 400 ppm 980 mg/m³ PEL OSHA
 400 ppm 980 mg/m³ REL NIOSH
 500 ppm 1225 mg/m³ STEL NIOSH

Butane
 200 ppm 1640 mg/m³ TLV NIOSH
 400 ppm 984 mg/m³ STEL ACGIH
 400 ppm 1000 mg/m³ PEL OSHA

Propane

200 ppm 492 mg/m³ TLV ACGIH
 400 ppm 984 mg/m³ STEL ACGIH
 400 ppm 980 mg/m³ PEL OSHA
 400 ppm 1000 mg/m³ REL NIOSH
 500 ppm 1225 mg/m³ STEL NIOSH

9. PHYSICAL AND CHEMICAL PROPERTIES
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Information on basic physical and chemical properties

Physical state	liquid aerosol	Odor threshold	No information available
Appearance	clear	Odor	No information available
Color	colorless		

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH		No information available
Melting point/freezing point		No information available
Boiling point / boiling range		No information available
Flash point	below 73F	
Evaporation rate		No information available
Flammability (solid, gas)		No information available
Flammability Limit in Air		
Upper flammability limit:		No information available
Lower flammability limit:		No information available
Vapor pressure	101.3mm/hg	
Vapor density		
Water solubility	Insoluble	
Solubility in other solvents		No information available
Partition coefficient		No information available
Autoignition temperature		No information available
Decomposition temperature		No information available
Kinematic viscosity		No information available
Dynamic viscosity		No information available
Explosive properties		No information available
Oxidizing properties		No information available

Other Information

Explosion severity

Danger of Explosion, cloud	No information available
Minimum Ignition Energy, Cloud, mJ	No information available
KST, (cloud), bar.m.s-1	No information available
Pmax maximum explosion pressure, Cloud, bar	No information available
VMP, (cloud), bar.s-1	No information available
LOC Limiting Oxygen Concentration, Cloud, %v/v O2	No information available
Softening point	No information available
Molecular weight	No information available
Density	No information available
Bulk density	No information available
Specific Gravity	0.68@ 25C

10. STABILITY AND REACTIVITY

Reactivity

The product is stable and non-reactive under normal conditions of use, storage and transport.

Chemical Stability

Material is stable under normal conditions.

Possibility of hazardous reactions

No dangerous reaction known under conditions of normal use.

Conditions to avoid

Contact with incompatible materials. High temperatures

Incompatible materials

Strong oxidizing agents.

Hazardous decomposition products

Carbon Dioxide, Carbon Monoxide

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information	Causes serious eye damage. Can be fatal if swallowed
Inhalation	Is a respiratory sensitizer.
Eye contact	Causes eye damage/irritation.
Skin Contact	Causes skin damage/irritation
Ingestion	Can be fatal if swallowed.

Information on toxicological effects

Propane	LD50 Dermal	Rabbit	12800mg/kg
	LD50 Oral	Rat	5000 mg/kg
Butane/Heptane	LC50 Vapor Inhalation	Rat	658000mg/kg
	LC50 Gas Inhalation	Rat	48000mg/kg

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Sensitization

Germ cell mutagenicity

Carcinogenicity

No information or data specific to the product on this toxicological (health) effect is available.

Reproductive toxicity

STOT - single exposure

No information or data specific to the product on this toxicological (health) effect is available.

STOT - repeated exposure

No information or data specific to the product on this toxicological (health) effect is available.

Target Organ Effects	Central nervous system, Eyes.
Aspiration hazard	No information or data specific to the product on this toxicological (health) effect is available.

Numerical measures of toxicity - Product Information

The following values are calculated based on chapter 3.1 of the GHS document .

12. ECOLOGICAL INFORMATION

Ecotoxicity – LC 50 Values

2-Propanol	Fish Rasbora Heteromorpha	4200mg/l	96 Hours
Butane	Fish Pimephales Promelas	173000 ug/l	96 Hours

Persistence and degradability

No information available.

Bioaccumulation

No information available.

Other adverse effects

No information available

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal of wastes	Disposal should be in accordance with applicable regional, national and local laws and regulations.
Contaminated packaging	Do not reuse container.

14. TRANSPORT INFORMATION

DOT Proper Shipping Name: Flammable Aerosols

IMDG Flammable Aerosols. – **NOT A MARINE POLLUTANT**

IATA: Flammable Aerosols

DOT, IMDG, IATA Primary Hazard Class: 2.1

DOT, IMDG, IATA Packing Group: II

Label Required 3

UN Number . **UN 1950**

15. REGULATORY INFORMATION

International Inventories

AICS	Yes
DSL	Yes
NDSL	No
IECSC	Yes
EINECS	Yes
ELINCS	No
ENCS	Yes
KECL	Yes
PICCS	Yes
TSCA	Yes (Registered Lautenberg 21st act)
NZIoC	Yes

Legend:

AICS - Australian Inventory of Chemical Substances
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
IECSC - China Inventory of Existing Chemical Substances
EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
ENCS - Japan Existing and New Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
NZIoC - New Zealand Inventory of Chemicals

US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

Chemical Name	SARA 313 - Threshold Values %
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SARA 311/312 Hazard Categories

Acute health hazard	Yes
Chronic Health Hazard	Yes
Fire hazard	Yes
Sudden release of pressure hazard	Yes
Reactive Hazard	No

CERCLA

This material, as supplied, contains no substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

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

Not regulated.

SARA 311/312 Hazardous

Yes

Classified hazard categories

Eye Damage or Irritation, skin damage or irritation
 Aspiration hazard, Flammable.

California Prop 65

None

16. OTHER INFORMATION

<u>NFPA</u>	Health hazards 2	Flammability 3	Instability 0	Physical and Chemical Properties -
<u>HMIS</u>	Health hazards 2*	Flammability 3	Physical hazards 0	Personal protection X

Revision Date 26-Apr-2019

Revision Note

[SDS sections updated \(***\) GHS Revision](#)

Disclaimer

The information provided above is intended as a guide to assist in the safe handling, use, processing, storage, transportation, disposal and release of the material listed. Nothing contained herein is to be considered as an express or implied warranty of performance or quality. The information relates only to the specific material designated and may not be applicable when such material is used in combination with any other materials or as part of any process, except as otherwise expressly described herein. The information is believed to be true and correct as of the date issued. Always make sure you are using the most current information available. The material described herein is produced for commercial and industrial use only and unless otherwise specifically designated by the manufacturer in writing has not received any specific regulatory approval such as approvals for food contact or for use in medical/surgical applications or devices. It is buyer and user's sole and exclusive responsibility to ensure that any handling, use, processing, storage, transportation, disposal and release of the material complies with all applicable laws, rules and regulations.

End of Safety Data Sheet