

Safety Data Sheet

This safety data sheet complies with the requirements of: WHIMS 2015

Product name JET-X 2% High Expansion Foam Concentrate

1. Identification of the Substance/Preparation and of the Company/Undertaking

Product Identifier

Product name JET-X 2% High Expansion Foam Concentrate

Other means of identification

Product code 436883

Synonyms None

Recommended use of the chemical and restrictions on use

Recommended use Fire extinguishing agent

Uses advised against Consumer use

Details of the Supplier of the Safety Data Sheet

Manufacturer

Johnson Controls
8 Henderson Place,
Onehunga Auckland 1061,
New Zealand
Tel: +64 800 496 7625 or local (09) 625 0600

E-mail address psra@jci.com

Emergency telephone number

Emergency telephone CHEMTREC 001-800-424-9300 or 001-703-527-3887

2. Hazards Identification

Classification

Serious eye damage/eye irritation

Category 2A

Label Elements

WARNING

Hazard statements

Causes serious eye irritation



Precautionary Statements - Prevention

Wear protective gloves/protective clothing/eye protection/face protection

Precautionary Statements - Response

IF exposed or concerned: Get medical advice/attention

Eyes

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
If eye irritation persists: Get medical advice/attention

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

OTHER INFORMATION

Very toxic to aquatic life with long lasting effects Very toxic to aquatic life

3. Composition/information on Ingredients

Substance

Not Applicable.

Mixture

Chemical name	CAS No.	weight-%	Hazardous Material Information Review Act registry number (HMIRA registry #)	Date HMIRA filed and date exemption granted (if applicable)
Sulfuric Acid, mono-C10-16 esters, Ammonium salts	68081-96-9	10 - 20%	-	-
Ethylene Glycol	107-21-1	10 - 20%	-	-
2-(2-Butoxyethoxy)ethanol	112-34-5	0 - 10%	-	-
Dodecan-1-ol, ethoxylated, sulfates, Ammonium salts	32612-48-9	0 - 10%	-	-
Lauryl Alcohol	112-53-8	0 - 10%	-	-
Ethanol	64-17-5	0 - 10%	-	-

4. First aid measures

Description of first aid measures

General advice	IF exposed or concerned: Get medical advice/attention. Show this safety data sheet to the doctor in attendance.
Inhalation	Remove to fresh air.
Eye contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Keep eye wide open while rinsing. Do not rub affected area. Get medical attention if irritation develops and persists.
Skin contact	Wash skin with soap and water.
Ingestion	Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Do NOT induce vomiting. Call a physician.
Self-protection of the first aider	Avoid contact with skin, eyes or clothing. Wear personal protective clothing (see section 8).

Most Important Symptoms and Effects, Both Acute and Delayed

Symptoms	Burning sensation.
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Indication of Any Immediate Medical Attention and Special Treatment Needed

Note to physicians	Treat symptomatically.
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5. Fire-fighting measures

Suitable Extinguishing Media	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Unsuitable extinguishing media	Caution: Use of water spray when fighting fire may be inefficient.
Specific hazards arising from the chemical	No information available.
Hazardous Combustion Products	Carbon oxides. Nitrogen oxides (NOx). Oxides of sulfur.
Explosion Data	
Sensitivity to Mechanical Impact	None.
Sensitivity to Static Discharge	None.
Special protective equipment for fire-fighters	Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

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

Other Information Refer to protective measures listed in Sections 7 and 8.

Environmental Precautions

Environmental precautions 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.

Methods for cleaning up Pick up and transfer to properly labeled containers.

Prevention of secondary hazards Clean contaminated objects and areas thoroughly observing environmental regulations.

7. Handling and Storage

Precautions for Safe Handling

Advice on safe handling Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed in a dry, cool and well-ventilated place.

8. Exposure Controls/Personal Protection

Control Parameters

Exposure Limits

Chemical name	Alberta	British Columbia	Ontario TWA	Quebec
Ethylene Glycol 107-21-1	Ceiling: 100 mg/m ³	TWA: 10 mg/m ³ STEL: 20 mg/m ³ Ceiling: 100 mg/m ³ Ceiling: 50 ppm	CEV: 100 mg/m ³	Ceiling: 50 ppm Ceiling: 127 mg/m ³
2-(2-Butoxyethoxy)ethanol 112-34-5			TWA: 10 ppm	
Ethanol 64-17-5	TWA: 1000 ppm TWA: 1880 mg/m ³	STEL: 1000 ppm	STEL: 1000 ppm	TWA: 1000 ppm TWA: 1880 mg/m ³

OTHER INFORMATION None known.

Appropriate Engineering Controls

Engineering controls Ensure adequate ventilation, especially in confined areas.

Individual protection measures, such as personal protective equipment

Eye/face protection	If splashes are likely to occur, wear safety glasses with side-shields.
Hand protection	Wear suitable gloves.
Skin and body protection	Wear suitable protective clothing.
Respiratory protection	No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.
General hygiene considerations	Do not eat, drink or smoke when using this product. Wash hands before breaks and immediately after handling the product. Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection.

9. Physical and Chemical Properties

Information on basic physical and chemical properties

Physical State	Liquid
Appearance	No data available
Color	Blue
Odor	Characteristic
Odor Threshold	No data available

Property	Values	Remarks • Method
pH	7	
Melting point/freezing point	No data available	No data available
Boiling point / boiling range	100 °C / 212 °F	
Flash Point	> 100 °C / 212 °F	
Evaporation Rate	No data available	No data available
Flammability (solid, gas)		No data available
Flammability limit in air		No data available
Upper flammability limit:	No data available	
Lower flammability limit:	No data available	
Vapor Pressure	No data available	No data available
Vapor Density	No data available	No data available
Relative Density		No data available
Water Solubility	No data available	No data available
Solubility in Other Solvents	No data available	No data available
Partition coefficient	No data available	No data available
Autoignition Temperature	No data available	No data available
Decomposition Temperature	No data available	No data available
Kinematic viscosity	No data available	No data available
Dynamic viscosity	No data available	No data available
Explosive properties	No data available.	
Oxidizing properties	No data available.	

OTHER INFORMATION

softening point	No data available
Molecular Weight	No data available
VOC content (%)	19.01161
Density	No data available
Bulk Density	No data available

10. Stability and Reactivity

Reactivity	No information available.
Chemical Stability	Stable under normal conditions.
Possibility of hazardous reactions	None under normal processing.
Hazardous Polymerization	Hazardous polymerization does not occur.
Conditions to Avoid	None known based on information supplied.
Incompatible Materials	None known based on information supplied.
Hazardous decomposition products	Carbon oxides. Nitrogen oxides (NOx). Oxides of sulfur.

11. Toxicological Information

Information on Likely Routes of Exposure

Product Information

Inhalation	Specific test data for the substance or mixture is not available. May cause irritation of respiratory tract.
Eye contact	Specific test data for the substance or mixture is not available. Causes serious eye irritation. (based on components). May cause redness, itching, and pain.
Skin contact	Specific test data for the substance or mixture is not available. May cause irritation. Prolonged contact may cause redness and irritation.
Ingestion	Specific test data for the substance or mixture is not available. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Information on Toxicological Effects

Symptoms	May cause redness and tearing of the eyes.
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Numerical Measures of Toxicity

Acute Toxicity

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

ATEmix (oral)	3,104.00 mg/kg
ATEmix (dermal)	35,416.00 mg/kg

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Ethylene Glycol 107-21-1	= 4700 mg/kg (Rat)	= 10600 mg/kg (Rat) = 9530 µL/kg (Rabbit)	-
2-(2-Butoxyethoxy)ethanol 112-34-5	= 5660 mg/kg (Rat)	= 2700 mg/kg (Rabbit)	-

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Dodecan-1-ol, ethoxylated, sulfates, Ammonium salts 32612-48-9	= 630 mg/kg (Rat)	-	-
Lauryl Alcohol 112-53-8	> 12800 mg/kg (Rat)	-	-
Ethanol 64-17-5	= 7060 mg/kg (Rat)	-	= 124.7 mg/L (Rat) 4 h

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

Skin corrosion/irritation	May cause skin irritation.
Serious eye damage/eye irritation	Classification based on data available for ingredients. Irritating to eyes.
Respiratory or skin sensitization	No information available.
Germ cell mutagenicity	No information available.
Carcinogenicity	Classification based on data available for ingredients.

The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical name	ACGIH	IARC	NTP	OSHA
Ethanol 64-17-5	A3	Group 1	Known	X

ACGIH (American Conference of Governmental Industrial Hygienists)

A3 - Animal Carcinogen

IARC (International Agency for Research on Cancer)

Group 1 - Carcinogenic to Humans

NTP (National Toxicology Program)

Known - Known Carcinogen

OSHA (Occupational Safety and Health Administration of the US Department of Labor)

X - Present

Reproductive toxicity	No information available.
STOT - single exposure	No information available.
STOT - repeated exposure	No information available.
Target organ effects	Central Nervous System, Eyes, Respiratory System, Skin.
Aspiration hazard	No information available.

12. Ecological Information

Ecotoxicity

Chemical name	Algae/aquatic plants	Fish	Toxicity to Microorganisms	Crustacea
Sulfuric Acid, mono-C10-16 esters, Ammonium salts 68081-96-9	EC50 (96h) = 42 mg/L Desmodesmus subspicatus	LC50 (48h) static = 19 mg/L Leuciscus idus	-	EC50 (24h) = 56 mg/L Daphnia magna
Ethylene Glycol	EC50 (96h) 6500 -	LC50 (96h) static 40000	-	EC50 (48h) = 46300

107-21-1	13000 mg/L Pseudokirchneriella subcapitata	- 60000 mg/L Pimephales promelas LC50 (96h) static = 27540 mg/L Lepomis macrochirus LC50 (96h) = 41000 mg/L Oncorhynchus mykiss LC50 (96h) static 14 - 18 mL/L Oncorhynchus mykiss LC50 (96h) static = 16000 mg/L Poecilia reticulata LC50 (96h) static = 40761 mg/L Oncorhynchus mykiss		mg/L Daphnia magna
2-(2-Butoxyethoxy)ethanol 112-34-5	EC50 (96h) > 100 mg/L Desmodesmus subspicatus	LC50 (96h) static = 1300 mg/L Lepomis macrochirus	-	EC50 (48h) > 100 mg/L Daphnia magna EC50 (24h) = 2850 mg/L Daphnia magna
Lauryl Alcohol 112-53-8	EC50 (96h) = 0.62 mg/L Desmodesmus subspicatus	LC50 (96h) = 0.1855 mg/L Pimephales promelas LC50 (96h) flow-through = 1.01 mg/L Pimephales promelas	-	EC50 (48h) = 320 mg/L Daphnia magna
Ethanol 64-17-5	-	LC50 (96h) static 12.0 - 16.0 mL/L Oncorhynchus mykiss LC50 (96h) flow-through 13400 - 15100 mg/L Pimephales promelas LC50 (96h) static > 100 mg/L Pimephales promelas	-	EC50 (24h) = 10800 mg/L Daphnia magna LC50 (48h) 9268 - 14221 mg/L Daphnia magna EC50 (48h) Static = 2 mg/L Daphnia magna

Persistence and Degradability No information available.

Bioaccumulation No information available.

Chemical name	Partition coefficient
Ethylene Glycol 107-21-1	-1.93
Lauryl Alcohol 112-53-8	5.36
Ethanol 64-17-5	-0.32

Other Adverse Effects No information available.

13. Disposal Considerations

Waste Treatment Methods

Waste from residues/unused products Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

Contaminated packaging

Do not reuse empty containers.

14. Transport Information

<u>TDG</u>	NOT REGULATED
<u>MEX</u>	NOT REGULATED
<u>ICAO (air)</u>	NOT REGULATED
<u>IATA</u>	NOT REGULATED
<u>IMDG</u>	NOT REGULATED
<u>RID</u>	NOT REGULATED
<u>ADR</u>	NOT REGULATED
<u>ADN</u>	NOT REGULATED

15. Regulatory Information

REGULATORY INFORMATION

Safety, health and environmental regulations/legislation specific for the substance or mixture

National regulations

EPA New Zealand HSNO approval code or group standard HSR002573 - Fire Fighting Chemicals

National regulations

There are no applicable tolerable exposure limits or environmental exposure limits according to the EPA Controls for Hazardous Substances

Certified handlers, tracking and controlled substance license requirements

Certified handlers are required for some substances. This includes substances requiring a controlled substance license, and most explosives, vertebrates toxic agents, and certain fumigants. Acutely toxic substances which are a Category 1 or 2, such as pesticides also require Certified handlers. Please check the Health and Safety at Work Act 2015 for further information

Tracking is required for some highly hazardous substances. These substances need to be under the control of an appropriately trained person or appropriately secured. Please check the Health and Safety at Work Act 2015 for further information

Controlled substance licenses are required to possess certain explosives, vertebrate toxic agents and fumigants. See Part 7 of the Health and Safety at Work Regulation 2017 for more information

International regulations

Ozone-depleting substances (ODS) Not Applicable

Persistent Organic Pollutants Not Applicable

Export Notification requirements Not Applicable

International Inventories

TSCA	Complies
DSL/NDL	Complies
ENCS	Does not comply
IECSC	Complies
KECL	Complies
PICCS	Complies
AICS	Complies

Legend:

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

16. Other information, including date of preparation of the last revision

<u>NFPA</u>	Health Hazards 2	Flammability 1	Instability 0	Physical and chemical properties -
<u>HMIS</u>	Health Hazards 2	Flammability 1	Physical Hazards 0	Personal Protection X

Revision date 27-Jun-2018

Revision note SDS sections updated, 2, 3, 11, 12, 15.

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The 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, unless specified in the text.

End of Safety Data Sheet