
Section 1 - PRODUCT AND COMPANY IDENTIFICATION

Material Name

SOLBERG 1-2% HIGH-EXPANSION FOAM CONCENTRATE

Synonyms

SOLBERG 1-2% HIGH-EXPANSION ; SOLBERG 1-2% HI-EX

Product Description

Mixture.

Product Use

Fire Suppression Agent, Liquid Concentrate.

Restrictions on Use

None known.

Manufacturer Information

Solberg Asia Pacific Pty Ltd
17B Farnham Street, Suite 7018
Parnell, Auckland 1052 New Zealand
Phone: +64 9 320 5250

Emergency telephone

+64 9 320 5250

Section 2 - HAZARDS IDENTIFICATION

ERMA New Zealand Approval Code: HSR002573

HSNO Hazard Classifications

6.3A, 8.3A, 9.1D, 9.1C

GHS Label Elements

Symbol(s)



Signal Word

Danger

Hazard Statement(s)

Causes skin irritation.
Causes serious eye damage.



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Toxic to aquatic life.
Harmful to aquatic life with long lasting effects.

Precautionary Statement(s)

Prevention

Wear protective gloves/protective clothing/eye protection/face protection.
Wash thoroughly after handling.
Avoid release to the environment.

Response

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.
IF ON SKIN: Wash with plenty of soap and water.
Take off contaminated clothing and wash before reuse.

Storage

None needed according to classification criteria.

Disposal

Dispose of contents/container in accordance with local/regional/national/international regulations.

Statement(s) of Unknown Aquatic Toxicity

73% of the mixture consists of ingredient(s) of unknown acute aquatic toxicity.
73% of the mixture consists of ingredient(s) of unknown chronic aquatic toxicity.

Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

CAS	Component Name	Percent
68891-38-3	Poly(oxy-1,2-ethanediyl), .alpha.-sulfo-.omega.-hydroxy-, C12-14-alkyl ethers, sodium salts	35-45
112-34-5	Diethylene glycol butyl ether	10-15
61788-90-7	Amines, coco alkyl dimethyl, N-oxides	10-15

Section 4 - FIRST AID MEASURES

Description of Necessary Measures

No special measures are necessary.

Inhalation

If adverse effects occur, remove to uncontaminated area. Call a POISON CENTER or doctor if you feel unwell.

Skin

Wash with plenty of soap and water. Take off contaminated clothing and wash before reuse. If skin irritation occurs: Get medical advice/attention.



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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/physician.

Ingestion

Not a likely route of exposure. If swallowed, get medical attention.

Most Important Symptoms/Effects

Symptoms: Immediate

Causes skin irritation. Causes serious eye damage.

Symptoms: Delayed

No information on significant adverse effects.

Note to Physicians

Treat symptomatically and supportively.

Workplace facilities required

Provide an emergency eye wash fountain and quick drench shower in the immediate work area

Self-protection of the first aider

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

Section 5 - FIRE FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media

Not applicable as this is a fire suppression agent.

Unsuitable Extinguishing Media

None known.

Special Hazards Arising from the Chemical

Negligible fire hazard.

Hazardous Combustion Products

Under certain extreme conditions there may be release of toxic and/or corrosive gases: oxides of carbon, oxides of nitrogen, oxides of sulfur.

Special Protective Equipment and Precautions for Firefighters

Wear protective clothing and equipment suitable for the surrounding fire.

Fire Fighting Measures

Move container from fire area if it can be done without risk. Cool containers with water. Dike for later disposal. Avoid inhalation of material or combustion by-products.

Hazchem/Emergency Action Code

Not specific

Section 6 - ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures

Wear appropriate personal protective equipment recommended in Section 8 of the MSDS.

Environmental Precautions

Prevent entry into waterways, sewers, basements, or confined areas. Dispose of waste in accordance with environmental legislation.

Methods and Materials for Containment and Cleaning Up

Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Stop leak if safe to do so. Collect spilled material in appropriate container for disposal.

Section 7 - HANDLING AND STORAGE

Precautions for Safe Handling

Wear protective eye/face protection. Do not breath vapor or mist. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Avoid release to the environment.

Conditions for Safe Storage, Including any Incompatibilities

Keep only in original packaging or containers approved by the manufacturer. Do not mix with other extinguishing agent unless otherwise approved by the manufacturer.

Incompatible Materials

Electrically energized equipment, water-reactive materials, Strong oxidizer.

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

Component Exposure Limits

Diethylene glycol butyl ether	112-34-5
ACGIH:	10 ppm TWA inhalable fraction and vapor

ACGIH - Threshold Limit Values - Biological Exposure Indices (BEI)

There are no biological limit values for any of this product's components.

New Zealand - Workplace Exposure Limits - Biological Exposure Indices (BEI)

There are no biological limit values for any of this product's components.

Engineering Controls

Ensure compliance with applicable exposure limits. If necessary, use appropriate local exhaust ventilation to keep exposures below the regulated limits.

Individual Protection Measures, such as Personal Protective Equipment**Eye/face protection**

Wear splash resistant safety goggles with a faceshield.

Skin Protection

Wear protective clothing and equipment suitable for the surrounding fire.

Respiratory Protection

Respiratory protection is not required under normal conditions of use.

Glove Recommendations

Wear gloves appropriate for type of operation.

Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Transparent clear to light yellow liquid	Physical State	Liquid
Odor	Not available	Color	Transparent , clear , light yellow
Odor Threshold	Not available	pH	8
Melting Point	-2 °C	Boiling Point	Not available
Boiling Point Range	Not available	Freezing point	Not available
Evaporation Rate	Not available	Flammability (solid, gas)	Not available
Autoignition Temperature	Not available	Flash Point	Does not flash
Lower Explosive Limit	Not applicable	Decomposition temperature	Not available
Upper Explosive Limit	Not applicable	Vapor Pressure	Not available
Vapor Density (air=1)	Not available	Specific Gravity (water=1)	1.02
Water Solubility	100%	Partition coefficient: n-octanol/water	Not available
Viscosity	20 cSt	Kinematic viscosity	Not available
Solubility (Other)	Not available	Density	Not available
Molecular Weight	Not available		

Other Information

No information is available.

Section 10 - STABILITY AND REACTIVITY

Reactivity

No hazardous reaction when handled and stored according to provisions.

Chemical Stability

Stable under normal conditions of use.

Conditions to Avoid

None known.

Incompatible Materials

Electrically energized equipment, water-reactive materials, Strong oxidizer.

Hazardous decomposition products

None known.

Thermal decomposition products

Under certain extreme conditions there may be release of toxic and/or corrosive gases. oxides of carbon, oxides of sulfur, oxides of nitrogen.

Section 11 - TOXICOLOGICAL INFORMATION

Acute and Chronic Toxicity

Component Analysis - LD50/LC50

The components of this material have been reviewed in various sources and the following selected endpoints are published:

Diethylene glycol butyl ether (112-34-5)

Oral LD50 Rat 5660 mg/kg

Dermal LD50 Rabbit 2700 mg/kg

Product Toxicity Data

Acute Toxicity Estimate

No data available.

Immediate Effects

Cause skin irritation. Causes serious eye damage.

Delayed Effects

No information on significant adverse effects.

Irritation/Corrosivity Data

Cause skin irritation. Causes serious eye damage.

Respiratory Sensitization

No information available for the product.

Dermal Sensitization

No information available for the product.

Component Carcinogenicity

None of this product's components are listed by ACGIH, IARC, NTP, DFG or OSHA

Germ Cell Mutagenicity

No information available for the product.

Reproductive Toxicity

No information available for the product.

Specific Target Organ Toxicity - Single Exposure

No target organs identified.

Specific Target Organ Toxicity - Repeated Exposure

No target organs identified.

Aspiration hazard

No information available for the product.

Medical Conditions Aggravated by Exposure

No information available for the product.

Section 12 - ECOLOGICAL INFORMATION

Ecotoxicity

Toxic to aquatic life. Harmful to aquatic life with long lasting effects.

Component Analysis - Aquatic Toxicity

Diethylene glycol butyl ether	112-34-5
Fish:	LC50 96 h <i>Lepomis macrochirus</i> 1300 mg/L [static]
Algae:	EC50 96 h <i>Desmodesmus subspicatus</i> >100 mg/L IUCLID
Invertebrate:	EC50 48 h <i>Daphnia magna</i> >100 mg/L IUCLID

Persistence and Degradability

No information available for the product.

Bioaccumulative Potential

No information available for the product.

Mobility in soil

No information available for the product.

Other adverse effects

No additional information is available.

Section 13 - DISPOSAL CONSIDERATIONS

Disposal Methods

Dispose of contents/container in accordance with local/regional/national/international regulations.

Section 14 - TRANSPORT INFORMATION

ADG Information:

UN#: Not regulated as dangerous goods

IATA Information:

UN#: Not regulated as dangerous goods

ICAO Information:

UN#: Not regulated as dangerous goods

IMDG Information:

UN#: Not regulated as dangerous goods

Component Marine Pollutants (IMDG)

Not a marine pollutant.

This material does not contain any chemicals required by the IBC Code to be identified as dangerous chemicals in bulk.

Hazchem/Emergency Action Code

Not specific

Section 15 - REGULATORY INFORMATION

ERMA New Zealand Approval Code: HSR002573

New Zealand Regulations

Priority List of Hazardous Substances

None of this product's components are on the list

Ambient Air Quality Standards

None of this product's components are on the list

Ozone Depleting Substances

None of this product's components are on the list

Component Analysis - Inventory

Poly(oxy-1,2-ethanediyl), .alpha.-sulfo-.omega.-hydroxy-, C12-14-alkyl ethers, sodium salts (68891-38-3)

US	CA	EU	AU	PH	JP - ENCS	JP - ISHL	KR KECI - Annex 1	KR KECI - Annex 2	KR - REACH CCA	CN	NZ	MX	TW
Yes	DSL	No	Yes	Yes	No	No	Yes	No	No	Yes	Yes	No	Yes

Diethylene glycol butyl ether (112-34-5)

US	CA	EU	AU	PH	JP - ENCS	JP - ISHL	KR KECI - Annex 1	KR KECI - Annex 2	KR - REACH CCA	CN	NZ	MX	TW
Yes	DSL	EIN	Yes	Yes	Yes	Yes	Yes	No	No	Yes	Yes	Yes	Yes

Amines, coco alkyldimethyl, N-oxides (61788-90-7)

US	CA	EU	AU	PH	JP - ENCS	JP - ISHL	KR KECI - Annex 1	KR KECI - Annex 2	KR - REACH CCA	CN	NZ	MX	TW
Yes	DSL	EIN	Yes	Yes	No	No	Yes	No	No	Yes	Yes	No	Yes

Section 16 - OTHER INFORMATION

Summary of Changes



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New SDS: 2/24/2017

Key / Legend

ACGIH - American Conference of Governmental Industrial Hygienists; ADR - European Road Transport; AU - Australia; BOD - Biochemical Oxygen Demand; C - Celsius; CA - Canada; CA/MA/MN/NJ/PA - California/Massachusetts/Minnesota/New Jersey/Pennsylvania*; CAS - Chemical Abstracts Service; CFR - Code of Federal Regulations (US); CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CLP - Classification, Labelling, and Packaging; CN - China; CPR - Controlled Products Regulations; DFG - Deutsche Forschungsgemeinschaft; DOT - Department of Transportation; DSD - Dangerous Substance Directive; DSL - Domestic Substances List; EC - European Commission; EEC - European Economic Community; EIN - European Inventory of (Existing Commercial Chemical Substances); EINECS - European Inventory of Existing Commercial Chemical Substances; ENCS - Japan Existing and New Chemical Substance Inventory; EPA - Environmental Protection Agency; EU - European Union; F - Fahrenheit; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; ICAO - International Civil Aviation Organization; IDL - Ingredient Disclosure List; IDLH - Immediately Dangerous to Life and Health; IMDG - International Maritime Dangerous Goods; ISHL - Japan Industrial Safety and Health Law; IUCLID - International Uniform Chemical Information Database; JP - Japan; Kow - Octanol/water partition coefficient; KR KECI Annex 1 - Korea Existing Chemicals Inventory (KECI) / Korea Existing Chemicals List (KECL); KR KECI Annex 2 - Korea Existing Chemicals Inventory (KECI) / Korea Existing Chemicals List (KECL) , KR - Korea; LD50/LC50 - Lethal Dose/ Lethal Concentration; LEL - Lower Explosive Limit; LLV - Level Limit Value; LOLI - List Of Lists™ - ChemADVISOR's Regulatory Database; MAK - Maximum Concentration Value in the Workplace; MEL - Maximum Exposure Limits; MX - Mexico; NDSL - Non-Domestic Substance List (Canada); NFPA - National Fire Protection Agency; NIOSH - National Institute for Occupational Safety and Health; NJTSR - New Jersey Trade Secret Registry; NTP - National Toxicology Program; NZ - New Zealand; OSHA - Occupational Safety and Health Administration; PEL - Permissible Exposure Limit; PH - Philippines; RCRA - Resource Conservation and Recovery Act; REACH- Registration, Evaluation, Authorisation, and restriction of Chemicals; RID - European Rail Transport; SARA - Superfund Amendments and Reauthorization Act; STEL - Short-term Exposure Limit; TCCA - Korea Toxic Chemicals Control Act; TDG - Transportation of Dangerous Goods; TLV - Threshold Limit Value; TSCA - Toxic Substances Control Act; TW - Taiwan; TWA - Time Weighted Average; UEL - Upper Explosive Limit; UN/NA - United Nations /North American; US - United States; VLE - Exposure Limit Value (Mexico); WHMIS - Workplace Hazardous Materials Information System (Canada).

Other Information

Disclaimer:

Safety data sheet is for concentrate as received NOT for end-use solution.