

SAFETY DATA SHEET

1. Identification

Product identifier	Bis(2-chloroethyl)ether Solut	ion	
Other means of identification			
Item	S-11213B1		
Recommended use	For Laboratory Use Only		
Recommended restrictions	None known.		
Manufacturer/Importer/Supplier/	Distributor information		
Manufacturer			
Company name	Chem Service, Inc.		
Address	660 Tower Lane		
	West Chester, PA 19380		
	United States		
Telephone	Toll Free	800-452-9994	1
	Direct	610-692-3026	3
Website	www.chemservice.com		
E-mail	info@chemservice.com		
Emergency phone number	Chemtrec US	800-424-9300)
	Chemtrec outside US	+1 703-527-3	887
2. Hazard(s) identification			
Physical hazards	Flammable liquids		Category 2
Health hazards	Acute toxicity, dermal		Category 1
	Serious eye damage/eye irritati	on	Category 2A
	Specific target organ toxicity, si	ngle exposure	Category 3 narcotic effects
Environmental hazards	Hazardous to the aquatic environ hazard	onment, acute	Category 3

OSHA defined hazards Label elements

Danger

Hazardous to the aquatic environment,

long-term hazard Not classified.

Signal word Hazard statement

Prevention

Precautionary statement

Highly flammable liquid and vapor. Fatal in contact with skin. Causes serious eye irritation. May cause drowsiness or dizziness. Harmful to aquatic life. Harmful to aquatic life with long lasting effects.

Category 3

Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Keep container tightly closed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Avoid breathing mist or vapor. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Avoid release to the environment. Wear eye protection/face protection. Wear protective gloves/protective clothing. Wear protective gloves/eye protection/face protection.

Response	If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. If inhaled: Remove person to fresh air and keep comfortable for breathing. 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/doctor. If eye irritation persists: Get medical advice/attention. Take off immediately all contaminated clothing and wash it before reuse. In case of fire: Use appropriate media to extinguish.
Storage	Store in a well-ventilated place. Keep container tightly closed. Store in a well-ventilated place. Keep cool. Store locked up.
Disposal	Dispose of contents/container in accordance with local/regional/national/international regulations.
Hazard(s) not otherwise classified (HNOC)	Static accumulating flammable liquid can become electrostatically charged even in bonded and grounded equipment. Sparks may ignite liquid and vapor. May cause flash fire or explosion.
Supplemental information	None.

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
Acetone		67-64-1	99 - 100
Bis(2-chloroethyl)ether		111-44-4	0.01

*Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. First-aid measures	
Inhalation	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.
Skin contact	Take off immediately all contaminated clothing. Rinse skin with water/shower. Call a physician or poison control center immediately. Wash contaminated clothing before reuse.
Eye contact	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician or poison control center immediately.
Ingestion	Call a physician or poison control center immediately. Rinse mouth. Do not induce vomiting without advice from poison control center. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Do not use mouth-to-mouth method if victim ingested the substance. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.
Most important symptoms/effects, acute and delayed	May cause drowsiness and dizziness. Headache. Nausea, vomiting. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision.
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically. Thermal burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. Keep victim warm. Keep victim under observation. Symptoms may be delayed.
General information	Take off immediately all contaminated clothing. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance. Wash contaminated clothing before reuse. Discard any shoes or clothing items that cannot be decontaminated.
5. Fire-fighting measures	
Suitable extinguishing media	Alcohol resistant foam. Water fog. Carbon dioxide (CO2). Dry chemical powder, carbon dioxide, sand or earth may be used for small fires only.
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical	Vapors may form explosive mixtures with air. Vapors may travel considerable distance to a source of ignition and flash back. This product is a poor conductor of electricity and can become electrostatically charged. If sufficient charge is accumulated, ignition of flammable mixtures can occur. To reduce potential for static discharge, use proper bonding and grounding procedures. This liquid may accumulate static electricity when filling properly grounded containers. Static electricity accumulation may be significantly increased by the presence of small quantities of water or other contaminants. Material will float and may ignite on surface of water. During fire, gases hazardous to health may be formed.
Special protective equipment and precautions for firefighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Fire fighting equipment/instructions	In case of fire and/or explosion do not breathe fumes. 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.
General fire hazards	Highly flammable liquid and vapor.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Wear appropriate protective equipment and clothing during clean-up. Avoid breathing mist or vapor. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Use appropriate containment to avoid environmental contamination. Transfer by mechanical means such as vacuum truck to a salvage tank or other suitable container for recovery or safe disposal. 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	Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Take precautionary measures against static discharge. Use only non-sparking tools. Keep combustibles (wood, paper, oil, etc.) away from spilled material.
	Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Prevent product from entering drains. Following product recovery, flush area with water.
	Small Spills: Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.
	Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.
Environmental precautions	Avoid release to the environment. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground. Inform appropriate managerial or supervisory personnel of all environmental releases. Use appropriate containment to avoid environmental contamination.
7. Handling and storage	
Precautions for safe handling	Do not handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. Explosion-proof general and local exhaust ventilation. Minimize fire risks from flammable and combustible materials (including combustible dust and static accumulating liquids) or dangerous reactions with incompatible materials. Handling operations that can promote accumulation of static charges include but are not limited to: mixing, filtering, pumping at high flow rates, splash filling, creating mists or sprays, tank and container filling, tank cleaning, sampling, gauging, switch loading, vacuum truck operations. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Use non-sparking tools and explosion-proof equipment. Do not get in eyes, on skin, or on clothing. Avoid breathing mist or vapor. Avoid prolonged exposure. When using, do not eat, drink or smoke. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Avoid release to the environment. Wash contaminated clothing before reuse. Observe good industrial hygiene practices.
	For additional information on equipment bonding and grounding, refer to the Canadian Electrical Code in Canada, (CSA C22.1), or the American Petroleum Institute (API) Recommended Practice 2003, "Protection Against Ignitions Arising out of Static, Lightning, and Stray Currents" or National Fire Protection Association (NFPA) 77, "Recommended Practice on Static Electricity" or National Fire Protection Association (NFPA) 70, "National Electrical Code".
Conditions for safe storage, including any incompatibilities	Store locked up. Keep away from heat, sparks and open flame. Prevent electrostatic charge build-up by using common bonding and grounding techniques. Eliminate sources of ignition. Avoid spark promoters. Ground/bond container and equipment. These alone may be insufficient to remove static electricity. Store in a cool, dry place out of direct sunlight. Store in original tightly closed container. Store in a well-ventilated place. Keep in an area equipped with sprinklers. Store away from incompatible materials (see Section 10 of the SDS).
8. Exposure controls/perso	onal protection
Occupational exposure limits	

US. OSHA Table Z-1 Lim Components	its for Air Contami	nants (29 CFR 19 Type	910.1000		/alue
Bis(2-chloroethyl)ether (CAS 111-44-4)		Ceiling		ç	00 mg/m3
. ,				1	5 ppm
US. ACGIH Threshold Lin Components	mit Values	Туре		١	/alue
Acetone (CAS 67-64-1)		STEL			750 ppm
		TWA			500 ppm
Bis(2-chloroethyl)ether (CAS 111-44-4)		STEL		1	0 ppm
		TWA		5	5 ppm
US. NIOSH: Pocket Guide Components	e to Chemical Haza	ards Type		١	/alue
Acetone (CAS 67-64-1)		TWA			590 mg/m3
					250 ppm
Bis(2-chloroethyl)ether		STEL			50 mg/m3
(CAS 111-44-4)				1	0 ppm
		TWA		3	30 mg/m3
				5	5 ppm
ological limit values					
ACGIH Biological Expose Components	ure Indices Value	Determina	ant	Specimen	Sampling Time
Acetone (CAS 67-64-1)	50 mg/l	Acetone		Urine	*
* - For sampling details, pl	ease see the source	e document.			
posure guidelines					
US - California OELs: Sk	•				
Bis(2-chloroethyl)ethe			Can be a	absorbed thro	bugh the skin.
Bis(2-chloroethyl)ethe			Skin desi	ignation app	lies.
Bis(2-chloroethyl)ethe US ACGIH Threshold Lin	· /		Can be a	absorbed thro	bugh the skin.
Bis(2-chloroethyl)ethe US NIOSH Pocket Guide				absorbed thro	bugh the skin.
Bis(2-chloroethyl)ethe					bugh the skin.
US. OSHA Table Z-1 Limi		•			
Bis(2-chloroethyl)ethe propriate engineering ntrols	Explosion-pro	of general and loc	cal exhaus	st ventilation	bugh the skin. . Good general ventilation (typically 10 air should be matched to conditions. If
	applicable, use maintain airbo established, m	changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Provide eyewash station. Eye wash fountain and emergency showers are recommended.			
dividual protection measur Eye/face protection	-	nal protective eq lasses with side s			
•••					
Skin protection					
Skin protection Hand protection	Wear appropri supplier.	iate chemical resis	stant glov	/es. Suitable	gloves can be recommended by the glove

(20 CED 4040 4000)

Respiratory protection	If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. Chemical respirator with organic vapor cartridge.
Thermal hazards	Wear appropriate thermal protective clothing, when necessary.
General hygiene considerations	When using do not smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties

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Appearance	
Physical state	Liquid.
Form	Liquid.
Color	Not available.
Odor	Not available.
Odor threshold	Not available.
рН	Not available.
Melting point/freezing point	-138.46 °F (-94.7 °C) estimated
Initial boiling point and boiling range	132.89 °F (56.05 °C) estimated
Flash point	-4.0 °F (-20.0 °C) estimated
Evaporation rate	Not available.
Flammability (solid, gas)	Not applicable.
Upper/lower flammability or expl	losive limits
Flammability limit - lower (%)	Not available.
Flammability limit - upper (%)	Not available.
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	308.63 hPa estimated
Vapor density	Not available.
Relative density	Not available.
Solubility(ies)	
Solubility (water)	Not available.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	869 °F (465 °C) estimated
Decomposition temperature	Not available.
Viscosity	Not available.
Other information	
Density	0.78984 g/cm3 estimated
Explosive properties	Not explosive.
Flammability class	Flammable IB estimated
Oxidizing properties	Not oxidizing.
Percent volatile	100 % estimated
Specific gravity	0.79 estimated
VOC (Weight %)	100 % estimated

10. Stability and reactivity

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

Possibility of hazardous reactions	Hazardous polymerization does not occur.
Conditions to avoid	Avoid heat, sparks, open flames and other ignition sources. Avoid temperatures exceeding the flash point. Contact with incompatible materials.
Incompatible materials	Acids.
Hazardous decomposition products	No hazardous decomposition products are known.

11. Toxicological information

Information on likely routes of exposure

Inhalation	May cause drowsiness and dizziness. Headache. Nausea, vomiting. Prolonged inhalation may be harmful.
Skin contact	Fatal in contact with skin.
Eye contact	Causes serious eye irritation.
Ingestion	Expected to be a low ingestion hazard.
Symptoms related to the physical, chemical and toxicological characteristics	Headache. May cause drowsiness and dizziness. Nausea, vomiting. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision.

Information on toxicological effects

Acute toxicity

In high concentrations, vapors are anesthetic and may cause headache, fatigue, dizziness and central nervous system effects. Fatal in contact with skin. Narcotic effects.

Components	Species	Test Results
Acetone (CAS 67-64-1)		
<u>Acute</u>		
Dermal		
LD50	Rabbit	20 mg/kg
		20 ml/kg
Inhalation		
LC50	Rat	55700 ppm, 3 Hours
		132 mg/l, 3 Hours
		76 mg/l, 4 Hours
		50.1 mg/l
		50.1 mg/l, 8 Hours
Oral		
LD50	Mouse	3000 mg/kg
	Rabbit	5340 mg/kg
	Rat	5800 mg/kg
		2.2 ml/kg
Other		
LD50	Mouse	1297 mg/kg
	Rat	5500 mg/kg
Bis(2-chloroethyl)ether (CAS	S 111-44-4)	
Acute		
Dermal		
LD50	Guinea pig	300 mg/kg
Inhalation		
LC100	Rat	700 mg/l, 6 Hours
LC50	Rat	1000 mg/l, 45 Minutes
Oral		
LD50	Mouse	136 mg/kg

single exposure Specific target organ toxicity - Protonged inhalation hazard. Not an aspiration hazard. Not an aspiration hazard. Chronic effects Prolonged inhalation may be harmful. 12. Ecological information Ecotoxicity Harmful to aquatic life with long lasting effects. Components Specific Arget organ toxicity Components Specific Arget organ toxicity Harmful to aquatic life with long lasting effects. Components Components Specific Arget organ toxicity Harmful to aquatic life with long lasting effects. Components Components Cost 67-64-1) Aquatic Crustacea EC50 Water flea (Daphnia magna) 21.6 - 23.9 mg/l, 48 hours Fish LC50 Rainbow trout, donaldson trout 4740 - 6330 mg/l, 96 hours (Oncorthynchus mykiss) Bis(2-chloroethyl)ether (CAS 111-44-4) Aquatic Fish LC50 Bluegill (Lepomis macrochirus) 600 mg/l, 96 hours 'Estimates for product may be based on additional component data not shown. Persistence and degradability No data is available on the degradability of this product. Bis(2-chloroethyl)ether No data is available on the degradability of this product. Bis(2-chloroethyl)ether No data vanilable. No data vanilable. No data vanilable. No data available. Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Do not allow this material to drain into sewers/water supplies. Do not containing pond, waterways or dicthe with chemical or used container. Disposal instructions Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Do not allow this material to drain into sewers/water supplies. Do not containing pond, waterways or dicthe with chemical or used container. Disposal instructions Collect and reclaim	Components	Species		Test Results		
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Bis(2-chloroethyl)ether (CAS 111-44-4) 3 Not classifiable as to carcinogenicity to humans. US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050) Not listed. Reproductive toxicity Specific target organ toxicity - Specific target organ toxicity - Specific target organ toxicity - Specific target organ toxicity - Reproductive toxicity Not classified. repeated exposure Specific target organ toxicity - Reproductive of developmental effects. Specific target organ toxicity - Not classified. repeated exposure Specific target organ toxicity - Reproductive toxicity Not an aspiration hazard. Chronic effects Prolonged inhalation may be harmful. 12. Ecological information Ecotoxicity Harmful to aquatic life with long lasting effects. Components Acetone (CAS 67-64-1) Aquatic Crustacea EC50 Rainbow trout, donaldson trout (Oncorhynchus mykiss) Bis(2-chloroethyl)ether (CAS 111-44-4) Aquatic Fish LC50 Bluegil (Lepomis macrochirus) Bis(2-chloroethyl)ether (CAS 111-44-4) Aquatic Fish LC50 Bluegil (Lepomis macrochirus) Bis(2-chloroethyl)ether (CAS 111-44-4) Aquatic Fish LC50 Bluegil (Lepomis macrochirus) Blogcentual is available on the degradability of this product. Bloaccumulative potential Partition coefficient n-octanol / water (log Kow) Acetone Partition coefficient n-octanol / water (log Kow) Acetone Bloacconter(log Kow) Acetone Disposal instructions Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Do not allow with chemical or used container. Bloaccontere container. Bloaccontere disposal instructions Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Do not allow with chemical or used container. Bloacco trainer Dispose of on containate ponds, waterways or ditche with chemical or used container. Bloacco trainer on bloacco trainer on b	Carcinogenicity	This produ	ct is not considered to be a carcinogen by	/ IARC, ACGIH, NTP, or OSHA.		
US: OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050) Not listed. Reproductive toxicity This product is not expected to cause reproductive or developmental effects. Specific target organ toxicity - single exposure May cause drowsiness and dizziness. Specific target organ toxicity - repeated exposure Not classified. Specific target organ toxicity - repeated exposure Not classified. Aspiration hazard Not an aspiration hazard. Chronic effects Prolonged inhalation may be harmful. 12. Ecological information Harmful to aquatic life with long lasting effects. Components Species Test Results Acetone (CAS 67-64-1) Aquatic Crustacea EC50 Water flea (Daphnia magna) 21.6 - 23.9 mg/l, 48 hours Fish LC50 Rainbow trout,donaldson trout (Oncorrhynchus mykiss) 600 mg/l, 96 hours Bis(2-chloroethyl)ether (CAS 111.44-4) Aquatic Fish LC50 Partition coefficient n-octarul Vater flea (Daphnia magna) 21.6 - 23.9 mg/l, 48 hours * Estimates for product may be based on additional component data not shown. Pertition coefficient n-octarul Vater flea (Daphnia magna) Acetone -0.24 Bis(2-chloroethyl)ether 1	IARC Monographs. Overall	Evaluation o	f Carcinogenicity			
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Hazardous waste code The waste code should be assigned in discussion between the user, the producer and the waste	Disposal instructions	this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with				
	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	Dispose of in accordance with local regulations. 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	Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport information

DOT	
UN number	UN1090
UN proper shipping name	Acetone, solution (Acetone RQ = 5001 LBS)
Transport hazard class(es)	
Class	3
Subsidiary risk	-
Label(s)	3
Packing group	I
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
Special provisions	IB2, T4, TP1
Packaging exceptions	150
Packaging non bulk	202
Packaging bulk	242
ΙΑΤΑ	
UN number	UN1090
UN proper shipping name	Acetone solution (Acetone)
Transport hazard class(es)	
Class	3
Subsidiary risk	-
Packing group	II
Environmental hazards	No.
ERG Code	3H
	Read safety instructions, SDS and emergency procedures before handling.
Other information	
Passenger and cargo	Allowed.
aircraft	Allering
Cargo aircraft only	Allowed.
IMDG	
UN number	UN1090
UN proper shipping name Transport hazard class(es)	ACETONE SOLUTION (Acetone)
	2
Class Subsidient risk	3
Subsidiary risk Packing group	-
Environmental hazards	11
	No.
Marine pollutant EmS	F-E. S-D
	Read safety instructions, SDS and emergency procedures before handling.
Transport in bulk according to	Not established.
Annex II of MARPOL 73/78 and	
the IBC Code	
DOT	





15. Regulatory information

	allon					
US federal regulations		ct is a "Hazardou 29 CFR 1910.12		d by the OSHA Hazard	Communication	
TSCA Section 12(b) Ex	kport Notification (40 CFR 707, Su	ubpt. D)			
Bis(2-chloroethyl)et	ther (CAS 111-44-4)	1.0 % One-Time E	xport Notification only.		
CERCLA Hazardous Substance List (40 CFR 302.4)				······································		
Acetone (CAS 67-64-1)		Listed.	Listed.			
Bis(2-chloroethyl)et	ther (CAS 111-44-4)	Listed.			
SARA 304 Emergency	release notification	on				
Bis(2-chloroethyl)ether (CAS 111-44-4)			10 LBS			
US. OSHA Specifically	Regulated Substa	ances (29 CFR	1910.1001-1050)			
Not listed.						
Superfund Amendments a	nd Reauthorizatio	n Act of 1986 (S	SARA)			
Hazard categories	Immediate Delayed Ha Fire Hazaro Pressure H Reactivity H	Hazard - Yes azard - No I - Yes azard - No lazard - No	,			
SARA 302 Extremely I	nazardous substar	nce				
Chemical name	CAS number	Reportable quantity	Threshold planning quantity	Threshold planning quantity, lower value	Threshold planning quantity, upper value	
Bis(2-chloroethyl)ethe r	111-44-4	10	10000 lbs			
SARA 311/312 Hazardo chemical	ous No					
SARA 313 (TRI reporti Not regulated.	ng)					
Other federal regulations						
Clean Air Act (CAA) So	oction 112 Hazard	oue Air Polluta	nte (HADe) Liet			
Bis(2-chloroethyl)e Clean Air Act (CAA) So Not regulated.	ther (CAS 111-44-4)		8.130)		
Safe Drinking Water A	ct Not regulat	ed.				
(SDWA)						
. ,		DEA). List 2, Es	sential Chemicals (21	CFR 1310.02(b) and 1	310.04(f)(2) and	
Drug Enforcemen	umber	DEA). List 2, Es	sential Chemicals (21 6532	CFR 1310.02(b) and 1	310.04(f)(2) and	
Drug Enforcemen Chemical Code No Acetone (CAS	u mber 67-64-1)	-	6532	CFR 1310.02(b) and 1 xtures (21 CFR 1310.1		
Drug Enforcemen Chemical Code No Acetone (CAS	umber 67-64-1) t Administration (I	-	6532			
Drug Enforcemen Chemical Code Nu Acetone (CAS Drug Enforcemen	umber 67-64-1) t Administration (I 67-64-1)	DEA). List 1 & 2	6532 Exempt Chemical Mi			
Drug Enforcement Chemical Code Nu Acetone (CAS Drug Enforcement Acetone (CAS	umber 67-64-1) t Administration (I 67-64-1) nical Mixtures Cod	DEA). List 1 & 2	6532 Exempt Chemical Mi			
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- US. California Controlled Substances. CA Department of Justice (California Health and Safety Code Section 11100) Not listed.
- US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd. (a))

Acetone (CAS 67-64-1) Bis(2-chloroethyl)ether (CAS 111-44-4)

US. Massachusetts RTK - Substance List Acetone (CAS 67-64-1)

Bis(2-chloroethyl)ether (CAS 111-44-4)

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

Bis(2-chloroethyl)ether (CAS 111-44-4) US. Pennsylvania RTK - Hazardous Substances

Acetone (CAS 67-64-1) Bis(2-chloroethyl)ether (CAS 111-44-4)

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

Acetone (CAS 67-64-1) Bis(2-chloroethyl)ether (CAS 111-44-4)

US. Rhode Island RTK

Acetone (CAS 67-64-1) Bis(2-chloroethyl)ether (CAS 111-44-4)

US. California Proposition 65

WARNING: This product contains a chemical known to the State of California to cause cancer.

US - California Proposition 65 - CRT: Listed date/Carcinogenic substance

Bis(2-chloroethyl)ether (CAS 111-44-4) Listed: April 1, 1988

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	No
Canada	Non-Domestic Substances List (NDSL)	Yes
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
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) A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

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

Issue date	09-25-2015
Version #	01
NFPA ratings	Health: 4 Flammability: 3 Instability: 0

The above information is believed to be correct on the date it was last revised and must not be considered all inclusive. The information has been obtained only by a search of available literature and is only a guide for handling the chemicals. OSHA regulations require that if other hazards become evident, an upgraded SDS must be made available to the employee within three months. RESPONSIBILITY for updates lies with the employer and not with CHEM SERVICE, Inc.

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