

No data available

MATERIAL SAFETY DATA SHEET

4. FIRST AID MEASURES

- INHALATION Move to well ventilated place.
See medical advice immediately.
- EYE Immediately flush with plenty of water.
See medical advice immediately.
- SKIN Wipe off with dry cloth and wash with mild soap.
See medical advice immediately.
- INGESTION See medical advice immediately.
- PROTECTION TO FIRST – AIDERS
No data available.
- NOTE TO PHYSICIAN
Treatment may vary with condition of victim and specifics of incident.

5. FIRE FIGHTING MEASURES

- FLAMMABLE PROPERTIES
Flash Point Not applicable
- EXTINGUISHING MEDIA
Dry chemical powder, foam or carbon dioxide.
- FIRE FIGHTING INSTRUCTIONS
Wear full fire-fighting turn-out gear and respiratory protection.

6. ACCIDENTAL RELEASE MEASURES

- LAND SPILL Wipe off with dry cloth.
- WATER SPILL Contain spilled liquid with sand or earth.
Do not use combustible materials, such as sawdust.

7. HANDLING AND STORAGE

- HANDLING : Use only in the well-ventilated areas.
Avoid contact with skin or eyes , or clothing.
Avoid inhalation and ingestion.
Avoid high temp. and fire.
Wash thoroughly after handling.
- STORAGE : Store in a cool, dry, well-ventilated location.
Keep away from heat, sunlight.
Keep away from children.

MATERIAL SAFETY DATA SHEET**8. EXPOSURE CONTROLS / PERSONAL PROTECTION**

EXPOSURE LIMIT VALUES

OSHA PEL (1994)	Not established
ACGIH TLV (2003)	
	[1,2-Ethanediol] CL 100 mg/m ³ (H)
	[Ethanol,2,2'-iminobis-] TWA 2 mg/m ³ (skin)
EN LIMIT (2000/39/EN)	
	[1,2-Ethanediol]
	eight hours 20 ppm (52 mg/m ³) (skin)
	Short-term 40 ppm (104 mg/m ³) (skin)

EXPOSURE CONTROLS

Occupational Exposure Controls

Engineering Controls

Use exhaust ventilation to keep airborne concentration below exposure limits.

Personal Protection

Respiratory Protection

Use with local exhaust ventilation, when in long use.

Hand Protection

Not required, but wear safety gloves, if necessary.

Eye Protection

Not required, but wear safety glasses, if necessary.

Skin Protection

To prevent ANY contact, wear impervious clothing such as gloves, apron, as appropriate.

Environmental Exposure Controls

Not established

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Physical state	Liquid
Odor	None
pH	8~10
Boiling Point / Boiling Range	No data available
Flash Point	Not applicable
Explosive Properties	No data available
Relative Density (g/cm ³)	1.0~1.1 g/cm ³
Solubility [Water]	soluble

MATERIAL SAFETY DATA SHEET**10. STABILITY AND REACTIVITY**

CONDITIONS TO AVOID	No data available
STABILITY	No data available
MATERIALS TO AVOID	No data available
HAZARDOUS REACTIONS / DECOMPOSITION PRODUCTS	No data available

11. TOXICOLOGICAL INFORMATION

Acute Toxicity (RTECS : 2004-11)

[1,2-Ethanediol]			
Oral	LD ₅₀ (rat)	4,700	mg/kg
Inhalation	LC ₅₀ (rat)	> 200	mg/ m ³ /4H
Skin	LD ₅₀ (rabbit)	9,530	uL/kg
[Ethanol,2-(2-butoxyethoxy)-]			
Oral	LD ₅₀ (rat)	5,660	mg/kg
Skin	LD ₅₀ (rabbit)	2,700	mg/kg
[Ethanol,2,2'-iminobis-]			
Oral	LD ₅₀ (rat)	620	uL/kg

12. ECOLOGICAL INFORMATION

ECOTOXICITY	No data available
BIOACCUMULATIVE POTENTIAL	No data available
OTHER ADVERSE EFFECTS	No data available

13. DISPOSAL CONSIDERATIONS

Comply with all federal,state,EU,national and local regulations.
Do not dump this product into sewers , on the ground or into any body of water.

14. TRANSPORT INFORMATION

UN CLASS	None
UN Packing Group (PG)	None
UN NUMBER	None
Proper Shipping Name	None

MATERIAL SAFETY DATA SHEET**15. REGULATORY INFORMATION**

Refer to any other federal , state , EU , national and local regulations.

OSHA STATUS : This product is hazardous under 29 CFR 1910.1200.

TSCA STATUS : All components on TSCA INVENTORY.

CERCLA REPORTABLE QUANTITY (40 CFR 117,302) :
Not applicable

SARA TITLE III: Not applicable

This product is classified as follows ,

[1,2-Ethanediol] :	[Xn]	R:22	S; (2)
[Ethanol,2-(2-butoxyethoxy)-]:	[Xi]	R:36	S; (2-)24-26
[Ethanol,2,2'-iminobis-] :	[Xn]	R:22-38-41-48/22	S; (2-)26-36/37/39-46

Symbol :	Xi	(Irritant)
	Xn	(Harmful)
Risk Phrase :	22	(Harmful if swallowed)
	36	(Irritating to eyes)
	38	(Irritating to skin)
	41	(Risk of serious damage to eyes)
	48/22	(Harmful: danger of serious damage to health by prolonged exposure if swallowed)
Safety Advice :	2	(Keep out of the reach of children.)
	24	(Avoid contact with skin.)
	26	(In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.)
	36/37/39	(Wear suitable protective clothing, gloves and eye/face protection.)
	46	(If swallowed, seek medical advice immediately and show this container or label.)

Please refer to any other EU, national and local measures.

16. OTHER INFORMATION

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