

Safety Data Sheet

6. Accidental release measures

Personal precautions:

Spill may be slippery. Avoid breathing vapors.

Environmental precautions:

Prevent spills from entering storm sewers or drains and contact with soil.

Methods and materials for containment and cleaning up:

Vacuum or mop up for possible use or reclaim. Common industrial absorbents may be used.

Dispose as non hazardous waste.

7. Handling and storage

Precautions for safe handling:

Avoid contact with eyes. Avoid prolonged or repeated skin contact and breathing mists/vapors.

Conditions for safe storage, including incompatibilities:

Standard safe storage conditions are appropriate: avoid package damage and extremes in temperature: below 32° and above 120°F. Keep package closed tightly.

8. Exposure controls / personal protection

Information on the system design:

Product is intended for external use only. Stay up wind, out of any spray developed.

Exposure Limits:

Reference 29CFR 1910.1000 Table Z-1

Component Name (CAS)

TWA

STEL

mg/m3

mg/m3

2-Butoxy ethanol (CAS 111-76-2)

OSHA PEL 20 ppm (skin)

OSHA STEL 50 ppm (skin)

Potassium hydroxide (CAS 1310-58-3)

C 2 mg/m3

NE*

USA. NIOSH Recommended Exposure Limits

C 2 mg/m3

NE*

ACGIH

C 2 mg/m4

NE*

*NE= Not Established

Personal protective equipment

Respiratory protection: No requirement anticipated.

Hand protection: Rubber gloves.

Eye protection: Safety glasses with side-shields.

Skin and body protection: Chemical resistant apron or protective suit if splashing or repeated contact with solution is likely.

Hygiene measures : Wash hands and face before breaks and immediately after handling the product.

Handle in accordance with good industrial hygiene and safety practice.

9. Physical and chemical properties

Appearance: Clear thin orange liquid

Odor: Slight "butyl", lemon

Odor threshold: Not available

pH-value: Approx. 11.4

Melting point: Not available

Freezing Point: Not available

Initial boiling point: Approximately 100°C.

Flash point: Does not flash.

Evaporation rate: Not available

Flammability (solid, gas): Not applicable

Explosion limits: Not explosive

Vapor pressure: (highest partial vapor pressure) at 20°C: Not available

Vapor density: Not available

Relative density (water=1.00): 1.02 approx.

Auto-ignition temperature: Not available

Solubility: Totally soluble in water at 20°C

Decomposition temperature: Not available

Partition coefficient: Log Kow = Not applicable to mixture.

Viscosity: Like water

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10. Stability and reactivity

Chemical stability: No decomposition, if used according to specifications.
 Possibility of hazardous reactions: None known
 Conditions to avoid: No dangerous conditions known.
 Materials to avoid: No common materials present a hazard.
 Hazardous decomposition products: None are known. Also see Section 5.

11. Toxicological information

Acute Toxicity: No information available for finished product.

Test	2-Butoxy ethanol CAS 111-76-2	Potassium hydroxide CAS 1310-58-3
Oral Toxicity LD 50 (Rats)	1480 mg/kg	333 mg/kg
Dermal Toxicity LD 50 (Rabbit)	2000 mg/kg	Severe 24 hr
Inhalation Toxicity, Vapor	700 ppm/7h(Mouse)	No data.
Eye Irritation (Rabbit)	No data.	Corrosive
Dermal Irritation (Rabbit)	No data.	No data.

Likely/ possible routes of exposure: Ingestion, skin and eye contact.

Skin: The product is not expected to be toxic by skin absorption.

Oral: The product is not expected to be toxic by ingestion.

Inhalation: The product is not expected to be toxic by inhalation.

H305 May be harmful if swallowed and enters airways
 Irritation

H315 Causes skin irritation

H320 Causes eye irritation

Sensitization: The product is not expected to be sensitizing.

Chronic toxicity: Prolonged skin contact may defat the skin and produce dermatitis.

Carcinogenicity: No component listed by NTP, IARC, OSHA or ACGIH as a suspect or potential carcinogen.

Summary Comments: Product may have a drying effect on the skin; frequent or prolonged contact may cause flaking or cracking of the skin.

12. Ecological information

Persistence and degradability: No data is available for the product itself.

This product is expected to be inherently biodegradable.

Bio-accumulative potential: There is no evidence to suggest bioaccumulation will occur.

Mobility: Accidental spillage may lead to penetration in the soil and groundwater. However, there is no evidence that this would cause adverse ecological effects.

Ecotoxicity: The product has not been tested.

The following data is reported for

2-Butoxy ethanol CAS 111-76-2

Toxicity to fish: LC50 - *Lepomis macrochirus* (Bluegill) - 1,490 mg/l - 96 h

Toxicity to daphnia and EC50 - *Daphnia magna* (Water flea) - 1,815 mg/l - 24 h

Potassium hydroxide CAS 1310-58-3

Toxicity to fish: LC50 - *Gambusia affinis* (Mosquito fish) - 80 mg/l - 96 h

Mobility in soil: No data available.

Results of PBT and vPvB assessment: No data available

Other adverse effects: No data available.

13. Disposal considerations

Product as supplied is not an unlisted hazardous waste. Do not discharge to sewer.
 Dispose in accordance with local, state and federal regulations.

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14. Transport information

Domestic transport: Not classified as dangerous goods under transport regulations.
 Sea transport (IMDG): Not classified as dangerous goods under transport regulations.
 Air transport (IATA/CAO): Not classified as dangerous goods under transport regulations.

15. Regulatory information

Inventory Status:
 All components are on TSCA, EINECS/ELINCS, AICS, and DSL.
 U.S. Regulations:
 U.S. Superfund Amendments and Reauthorization Act (SARA) Title III:
 SARA (311/312) HAZARD CATEGORIES: None
 Marine pollutant: None
 SARA 313: This product contains the following SARA 313 Toxic Release Chemicals.

Chemical Name	CAS Number	Concentration
None	Not applicable	Not applicable

The following product components are cited on the lists below:

Chemical Name	CAS Number	List Citations
2-Butoxy ethanol	CAS 111-76-2	PA, NJ
Potassium hydroxide	CAS 1310-58-3	MA, PA, NJ

No ingredient in this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC, ACGIH, NTP, or OSHA.
 California Prop. 65 chemicals: This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

16. Other information

MSDS Preparation date: March 2, 2015

Hazard Categories:	Health	Fire	Pressure	Reactivity	Reference
Immediate	Yes	No	No	No	49 CFR 171.8, OSHA 29 CFR 1910.1200 and SARA 302/311/312/313.
Delayed	No	No	XXX	XXX	

HMIS Hazard ratings: Health 2 Fire 0 Instability 0 Other B (Goggles, gloves)

Hazard Ratings: Least: 0 Slight: 1 Moderate: 2 High: 3 Extreme: 4

This SDS contains all the information required for classification by the Canadian CPR.
 This SDS is designed for workplace employees, emergency personnel and for conditions and situations where there is a greater potential for large-scale or prolonged exposure, in accordance with requirements of the U.S. Government's Occupational Safety and Health Administration (OSHA). It is not applicable for consumer use of our products. For consumer use, all precautionary and first aid language is provided on the product label in accordance with the applicable government regulation.