

Revision date 19-Dec-2023

SAFETY DATA SHEET

Version 6

1. Identification Product identifier Xhol **Product name** Other means of identification **Product No** R0146 Synonyms None Recommended use of the chemical and restrictions on use This product is for research and development only **Recommended use** No information available **Restrictions on use** Details of the supplier of the safety data sheet Supplier Address New England BioLabs 240 County Road Ipswich, MA 01938 **ÚSA** Emergency telephone number **Company Phone Number** 978-927-5054, 800-632-5227 (toll free) Telefax 978-921-1350 E-mail address info@neb.com 24 Hour Emergency Phone Number Chemtrec +1 703-741-5970

2. Hazard(s) identification

Classification

Label elements

Hazard statements

0 % of the mixture consists of ingredient(s) of unknown acute oral toxicity.
0 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity.
50 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas).
50 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapor).
50 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapor).

Other information

No information available.

3. Composition/information on ingredients

Substance

Not applicable.

Mixture

| 4. First-aid measures | | |
|--|--|--|
| Description of first aid measures | | |
| Inhalation | Remove to fresh air. | |
| Eye contact | Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician. | |
| Skin contact | Wash skin with soap and water. | |
| Ingestion | Rinse mouth. | |
| Most important symptoms and effects, both acute and delayed | | |
| Symptoms | No information available. | |
| Effects of Exposure | No information available. | |
| Indication of any immediate medical attention and special treatment needed | | |
| Note to physicians | Treat symptomatically. | |
| | | |

5. Fire-fighting measures

| Suitable Extinguishing Media | Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. | |
|---|--|--|
| Large Fire | CAUTION: Use of water spray when fighting fire may be inefficient. | |
| Unsuitable extinguishing media | Do not scatter spilled material with high pressure water streams. | |
| Specific hazards arising from the chemical | No information available. | |
| Explosion data Sensitivity to mechanical impact None. Sensitivity to static discharge None. | | |
| Special protective equipment and precautions 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

| Personal precautions | Ensure adequate ventilation. |
|----------------------|------------------------------|
|----------------------|------------------------------|

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. |

| 7. Handling and storage | | |
|--|--|--|
| Precautions for safe handling | | |
| Advice on safe handling | Handle in accordance with good industrial hygiene and safety practice. | |
| 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

Appropriate engineering controls

Engineering controls

Showers Eyewash stations Ventilation systems.

Individual protection measures, such as personal protective equipment

| Eye/face protection | No special protective equipment required. |
|--------------------------|--|
| Hand protection | No special protective equipment required. |
| Skin and body protection | No special protective equipment required. |
| 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. |
| | |

Handle in accordance with good industrial hygiene and safety practice.

9. Physical and chemical properties

General hygiene considerations

| Physical state | Liquid | |
|--|----------------------------|------------------|
| Appearance | Colorless | |
| Color | No information available | |
| Odor | Mild | |
| Odor threshold | No information available | |
| Property | Values | Remarks • Method |
| рН | No data available | None known |
| Melting point / freezing point | No data available | None known |
| Initial boiling point and boiling rang | e No data available | None known |
| Flash point | No data available | None known |
| Evaporation rate | No data available | None known |
| Flammability (solid, gas) | No data available | None known |
| Flammability Limit in Air | | None known |
| Upper flammability or explosive limits | No data available | |
| Lower flammability or explosive limits | No data available | |
| Vapor pressure | No data available | None known |
| Vapor density | No data available | None known |
| Relative density | No data available | None known |
| Water solubility | No data available | None known |
| Solubility(ies) | No data available | None known |
| Partition coefficient | No data available | None known |
| Autoignition temperature | 392.78 °C / 739 °F | |
| Decomposition temperature | No data available | None known |
| Kinematic viscosity | No data available | None known |
| Dynamic viscosity | No data available | None known |
| Other information | | |
| Explosive properties | No information available | |
| Oxidizing properties | No information available | |
| Softening point | No information available | |
| Molecular weight | No information available | |
| VOC content | No information available | |
| Liquid Density | No information available | |
| Bulk density | No information available | |

10. Stability and reactivity

| Reactivity | No information available. |
|--|---|
| Chemical stability | Stable under normal conditions. |
| Possibility of hazardous reactions | None under normal processing. |
| Conditions to avoid | None known based on information supplied. |
| Incompatible materials | None known based on information supplied. |
| Hazardous decomposition products None known based on information supplied. | |

11. Toxicological information

Information on likely routes of exposure

| Inhalation | Specific test data for the substance or mixture is not available. | |
|--|---|--|
| Eye contact | Specific test data for the substance or mixture is not available. | |
| Skin contact | Specific test data for the substance or mixture is not available. | |
| Ingestion | Specific test data for the substance or mixture is not available. | |
| Symptoms related to the physical | chemical and toxicological characteristics | |
| Symptoms | No information available. | |
| Acute toxicity | | |
| Numerical measures of toxicity | | |
| | | |
| The following values are calculated | l based on chapter 3.1 of the GHS document | |
| ATEmix (oral) | 25,200.00 mg/kg | |
| ATEmix (dermal) | 20,000.00 mg/kg | |
| ATEmix (inhalation-gas) | 99,999.00 ppm | |
| ATEmix (inhalation-vapor) | 99,999.00 mg/l | |
| ATEmix (inhalation-dust/mist) | 99,999.00 mg/l | |
| 0 % of the mixture consists of ingredient(s) of unknown acute oral toxicity 0 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity 50 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas) 50 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapor) 50 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist) | | |
| Component Information | | |
| Delayed and immediate effects as well as chronic effects from short and long-term exposure | | |
| Skin corrosion/irritation | No information available. | |
| | | |
| Serious eye damage/eye irritation | rritation No information available. | |
| Respiratory or skin sensitization | ation No information available. | |
| Germ cell mutagenicity | No information available. | |

| Carcinogenicity | No information available. |
|--------------------------|---------------------------|
| Reproductive toxicity | No information available. |
| STOT - single exposure | No information available. |
| STOT - repeated exposure | No information available. |
| Aspiration hazard | No information available. |

12. Ecological information

Ecotoxicity

| Persistence and degradability | No information available. |
|-------------------------------|---------------------------|
| Bioaccumulation | |
| Component Information | |
| Mobility in soil | No information available. |
| 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

| DOT | Not regulated |
|------------|---------------|
| <u>TDG</u> | Not regulated |
| MEX | Not regulated |
| ICAO (air) | Not regulated |
| IATA | Not regulated |
| IMDG | Not regulated |
| RID | Not regulated |

| ADR | Not regulated |
|-----|---------------|
|-----|---------------|

ADN

Not regulated

ADN

15. Regulatory information

Regulatory information

International Regulations

The Montreal Protocol on Substances that Deplete the Ozone Layer Not applicable

The Stockholm Convention on Persistent Organic Pollutants Not applicable

The Rotterdam Convention Not applicable

International Inventories

| DSL/NDSL | Contact supplier for inventory compliance status. |
|---------------|---|
| EINECS/ELINCS | Contact supplier for inventory compliance status. |
| ENCS | Contact supplier for inventory compliance status. |
| IECSC | Contact supplier for inventory compliance status. |
| KECL | Contact supplier for inventory compliance status. |
| PICCS | Contact supplier for inventory compliance status. |
| AIIC | Contact supplier for inventory compliance status. |
| NZIOC | Contact supplier for inventory compliance status. |

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

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

NZIOC - New Zealand Inventory of Chemicals

US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

SARA 311/312 Hazard Categories

Should this product meet EPCRA 311/312 Tier reporting criteria at 40 CFR 370, refer to Section 2 of this SDS for appropriate classifications.

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

US State Regulations California Proposition 65

This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

This product does not contain any substances regulated under applicable state right-to-know regulations

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

| 16. Other information | | | | | | |
|--|---|--|--|---|--|--|
| NFPA HMIS | Health hazards 0 Health hazards 0 | Flammability 1 Flammability 1 | Instability 0 Physical hazards 0 | Special hazards - Personal protection X | | |
| Key or legend to abbreviations and acronyms used in the safety data sheet | | | | | | |
| TWA T | XPOSURE CONTROLS/PER WA (time-weighted average) laximum limit value | SONAL PROTECTION STEL * | STEL (Short Tern Skin designation | n Exposure Limit) | | |
| Agency for Toxic Sub U.S. Environmental P European Food Safet EPA (Environmental A Acute Exposure Guid U.S. Environmental P U.S. Environmental P Food Research Journ Hazardous Substance International Uniform National Institute of T Australia National Ind NIOSH (National Inst National Library of Me National Library of Me National Library of Me National Toxicology P New Zealand's Chem Organization for Ecor | Protection Agency) leline Level(s) (AEGL(s)) Protection Agency Federal Inse Protection Agency High Product al e Database Chemical Information Databa echnology and Evaluation (NI lustrial Chemicals Notification itute for Occupational Safety a edicine's ChemID Plus (NLM (edicine's PubMed database (N Program (NTP) nical Classification and Information nomic Co-operation and Deve nomic Co-operation and Deve | y (ATSDR) Database ecticide, Fungicide, and ction Volume Chemicals ase (IUCLID) ITE) and Assessment Scher and Health) CIP) NLM PUBMED) ation Database (CCID) lopment Environment, H | Rodenticide Act ne (NICNAS) lealth, and Safety Publication n Volume Chemicals Program | | | |
| Prepared by | Environmer | ntal, Health and Safety, | 978-927-5054 | | | |
| Revision date | 19-Dec-202 | 23 | | | | |
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End of Safety Data Sheet