

Safety Data Sheet

according to the federal final rule of hazard communication revised on 2012 (HazCom 2012)
Issue date: 04/20/2023 Version: 00

SECTION 1: Identification

1.1. Identification

Product form : Mixture
Product name : Ricin B Chain
Product code : L-1290

1.2. Recommended use and restrictions on use

No additional information available

1.3. Supplier

Vector Laboratories, Inc.
6737 Mowry Ave
Newark, CA 94560
U.S.A
T (650) 697-3600 - F (650) 697-0339
customerservice@vectorlabs.com

1.4. Emergency telephone number

Emergency number : US only (800) 227-6666 or outside of the US +1 (650) 697-3600 (7:15 AM - 5:00 PM PST)

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS US classification

Skin sensitization, Category 1
Reproductive toxicity Category 2

May cause an allergic skin reaction
Suspected of damaging fertility or the unborn child

2.2. GHS Label elements, including precautionary statements

GHS US labeling

Hazard pictograms (GHS US) :



Signal word (GHS US) : Warning

Hazard statements (GHS US) : May cause an allergic skin reaction
Suspected of damaging fertility or the unborn child

Precautionary statements (GHS US) : Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Avoid breathing mist, spray, vapors.
Contaminated work clothing must not be allowed out of the workplace.
Wear eye protection, protective gloves.
If on skin: Wash with plenty of soap and water.
If exposed or concerned: Get medical advice/attention.
If skin irritation or rash occurs: Get medical advice/attention.
Wash contaminated clothing before reuse.
Store locked up.
Dispose of contents/container to an approved waste disposal plant.

2.3. Other hazards which do not result in classification

No additional information available

Safety Data Sheet

according to the federal final rule of hazard communication revised on 2012 (HazCom 2012)
Issue date: 04/20/2023 Version: 00



2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

| Name | Product identifier | % |
|---|---------------------|-----------|
| Ethanol, 2-mercapto- | CAS-No.: 60-24-2 | 0.1 – 0.5 |
| Lectin from Ricinus Communis Ricin, B chain | CAS-No.: 96638-29-8 | ≤ 0.1 |

The specific chemical component identities and/or the exact component percentages of this material may be withheld as trade secrets.

This information is made available to health professionals, employees, and designated representatives in accordance with the applicable provisions of 29 CFR 1910.1200 (I)(1). Trace ingredients (if any) are present in < 1% concentration, (< 0.1% for potential carcinogens, mutagen, and reproductive toxicant, respiratory tract and skin sensitizers in addition to oral/ inhalation acute toxicant in category 1 and 2). None of the trace ingredients contribute significant additional hazards at the concentrations that may be present in this product. All pertinent hazard information has been provided in this document, per the requirements of the Federal Occupational Safety and Health Administration Standard (29 CFR 1910.1200), U.S. State equivalents.

SECTION 4: First-aid measures

4.1. Description of first aid measures

| | |
|---------------------------------------|--|
| First-aid measures general | : IF exposed or concerned: Get medical advice/attention. |
| First-aid measures after inhalation | : Remove person to fresh air and keep comfortable for breathing. |
| First-aid measures after skin contact | : Wash skin with plenty of water. Take off contaminated clothing. If skin irritation or rash occurs: Get medical advice/attention. |
| First-aid measures after eye contact | : Rinse eyes with water as a precaution. |
| First-aid measures after ingestion | : Call a poison center/doctor/physician if you feel unwell. |

4.2. Most important symptoms and effects (acute and delayed)

Symptoms/effects after skin contact : May cause an allergic skin reaction.

4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide.

5.2. Specific hazards arising from the chemical

Hazardous decomposition products in case of fire : Toxic fumes may be released.

5.3. Special protective equipment and precautions for fire-fighters

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

Safety Data Sheet

according to the federal final rule of hazard communication revised on 2012 (HazCom 2012)
Issue date: 04/20/2023 Version: 00



SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures : Ventilate spillage area. Avoid contact with skin and eyes. Avoid breathing dust/fume/gas/mist/vapors/spray.

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Take up liquid spill into absorbent material. Notify authorities if product enters sewers or public waters.

Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear personal protective equipment. Avoid contact with skin and eyes. Avoid breathing dust/fume/gas/mist/vapors/spray.

Hygiene measures : Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store locked up. Store in a well-ventilated place. Keep cool.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

| |
|---|
| Ricin B Chain |
| No additional information available |
| Ethanol, 2-mercapto- (60-24-2) |
| No additional information available |
| Lectin from Ricinus Communis Ricin, B chain (96638-29-8) |
| No additional information available |

8.2. Appropriate engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station.

Environmental exposure controls : Avoid release to the environment.

Safety Data Sheet

according to the federal final rule of hazard communication revised on 2012 (HazCom 2012)
Issue date: 04/20/2023 Version: 00

8.3. Individual protection measures/Personal protective equipment

Hand protection:

Protective gloves

Eye protection:

Safety glasses

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

[In case of inadequate ventilation] wear respiratory protection.

Personal protective equipment symbol(s):



SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

| | |
|---|----------------------------|
| Physical state | : Liquid |
| Color | : Colorless |
| Odor | : Strong odor of mercaptan |
| Odor threshold | : No data available |
| pH | : 7.5 |
| Melting point | : Not applicable |
| Freezing point | : No data available |
| Boiling point | : No data available |
| Flash point | : No data available |
| Relative evaporation rate (butyl acetate=1) | : No data available |
| Flammability | : Not applicable |
| Vapor pressure | : No data available |
| Relative vapor density at 20°C | : No data available |
| Relative density | : No data available |
| Solubility | : No data available |
| Partition coefficient n-octanol/water (Log Pow) | : No data available |
| Auto-ignition temperature | : No data available |
| Decomposition temperature | : No data available |
| Viscosity, kinematic | : No data available |
| Viscosity, dynamic | : No data available |
| Explosion limits | : No data available |
| Explosive properties | : No data available |
| Oxidizing properties | : No data available |

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

Safety Data Sheet

according to the federal final rule of hazard communication revised on 2012 (HazCom 2012)
Issue date: 04/20/2023 Version: 00



10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral) : Not classified
Acute toxicity (dermal) : Not classified
Acute toxicity (inhalation) : Not classified

Ethanol, 2-mercapto- (60-24-2)

| | |
|-----------------------|--|
| LD50 dermal rabbit | 112 – 224 mg/kg body weight Animal: rabbit |
| LC50 Inhalation - Rat | ≈ 2 mg/l air Animal: rat, Animal sex: male |
| ATE US (oral) | 100 mg/kg body weight |
| ATE US (dermal) | 112 mg/kg body weight |
| ATE US (dust, mist) | 0.5 mg/l/4h |

Lectin from Ricinus Communis Ricin, B chain (96638-29-8)

| | |
|---------------------|----------------------|
| ATE US (oral) | 5 mg/kg body weight |
| ATE US (dermal) | 50 mg/kg body weight |
| ATE US (dust, mist) | 0.005 mg/l/4h |

Skin corrosion/irritation : Not classified
Serious eye damage/irritation : Not classified
Respiratory or skin sensitization : May cause an allergic skin reaction.
Germ cell mutagenicity : Not classified
Carcinogenicity : Not classified
Reproductive toxicity : Suspected of damaging fertility or the unborn child.
STOT-single exposure : Not classified
STOT-repeated exposure : Not classified

Ethanol, 2-mercapto- (60-24-2)

| | |
|--------------------------|--|
| LOAEL (oral,rat,90 days) | 50 mg/kg body weight Animal: rat, Guideline: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test), Guideline: OECD Guideline 407 (Repeated Dose 28-Day Oral Toxicity Study in Rodents) |
| NOAEL (oral,rat,90 days) | 15 mg/kg body weight Animal: rat, Guideline: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test), Guideline: OECD Guideline 407 (Repeated Dose 28-Day Oral Toxicity Study in Rodents) |
| STOT-repeated exposure | May cause damage to organs through prolonged or repeated exposure. |

Safety Data Sheet

according to the federal final rule of hazard communication revised on 2012 (HazCom 2012)
Issue date: 04/20/2023 Version: 00



Aspiration hazard : Not classified
Viscosity, kinematic : No data available
Symptoms/effects after skin contact : May cause an allergic skin reaction.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment.

| Ethanol, 2-mercapto- (60-24-2) | |
|---------------------------------------|--|
| LC50 - Fish [1] | 37 mg/l Test organisms (species): Leuciscus idus |
| EC50 - Crustacea [1] | 0.4 mg/l Test organisms (species): Daphnia magna |
| LOEC (chronic) | 0.1264 mg/l Test organisms (species): Daphnia magna Duration: '21 d' |
| NOEC (chronic) | > 0.0632 mg/l Test organisms (species): Daphnia magna Duration: '21 d' |

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

No additional information available

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Disposal methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

SECTION 14: Transport information

In accordance with DOT / IMDG / IATA

14.1. UN number

Not regulated for transport

14.2. UN proper shipping name

Proper Shipping Name (DOT) : Not applicable
Proper Shipping Name (IMDG) : Not applicable
Proper Shipping Name (IATA) : Not applicable

14.3. Transport hazard class(es)

DOT

Transport hazard class(es) (DOT) : Not applicable

IMDG

Transport hazard class(es) (IMDG) : Not applicable

Safety Data Sheet

according to the federal final rule of hazard communication revised on 2012 (HazCom 2012)
Issue date: 04/20/2023 Version: 00



IATA

Transport hazard class(es) (IATA) : Not applicable

14.4. Packing group

Packing group (DOT) : Not applicable

Packing group (IMDG) : Not applicable

Packing group (IATA) : Not applicable

14.5. Environmental hazards

Other information : No supplementary information available.

14.6. Special precautions for user

DOT

No data available

IMDG

No data available

IATA

No data available

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15: Regulatory information

15.1. US Federal regulations

All components of this product are present and listed as Active on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory, except for:

| | | |
|---|--------------------|--------|
| Lectin from Ricinus Communis Ricin, B chain | CAS-No. 96638-29-8 | ≤ 0.1% |
|---|--------------------|--------|

sodium azide (26628-22-8)

Subject to reporting requirements of United States SARA Section 313

| | |
|--|---------|
| CERCLA RQ | 1000 lb |
| RQ (Reportable quantity, section 304 of EPA's List of Lists) | 1000 lb |
| SARA Section 302 Threshold Planning Quantity (TPQ) | 500 lb |

15.2. International regulations

No additional information available

15.3. US State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

SECTION 16: Other information

according to the federal final rule of hazard communication revised on 2012 (HazCom 2012)

Custom_SDS_USA_VECTOR

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.