VERISCENTS

SAFETY DATA SHEET

Product: Helvetolide® | CAS: 141773-73-1

US HCS 2012 source dated March 11, 2024 | Prepared November 18, 2026 | Version 1

SECTION 1. Identification

Helvetolide®; CAS 141773-73-1; EC 415-490-5; REACH 01-0000016242-80; Index 607-492-00-1. Fragrance ingredient for manufacture of consumer products; not for personal use in this form or concentration.

Veriscents, 30 N Gould Street, Sheridan, WY 82801, USA. Regulatory Contact: 877.863.7700. Medical exposure emergencies (24 hours): Poison Help 800-222-1222. Transport emergency: HazmatLine +1 (813) 742-5152; support@hazmatline.com.

SECTION 2. Hazard identification

Aquatic chronic hazard, Category 2 (GHS environmental classification). Signal word: none. H411 - Toxic to aquatic life with long lasting effects.



P273 - Avoid release to the environment. P391 - Collect spillage. Other hazards: no data available.

SECTION 3. Composition/information on ingredients

2-(1-(3',3'-Dimethyl-1'-Cyclohexyl)Ethoxy)-2-Methyl Propyl Propanoate; CAS 141773-73-1; EC 415-490-5. Source SDS reports 99–100%; exact percentage withheld as trade secret. Supplied IFRA certificate identifies grade >90%; actual supplied grade and applicability of SDS must be confirmed before issue.

SECTION 4. FIRST-AID MEASURES

4.1 Description of first aid measures

General information:

As in all cases of potential poisoning, Obtain medical advice immediately.

In case of eye contact:

In the event of contact with the eyes, irrigate with water for at least 15 minutes; obtain medical advice if

irritation persists.

Page 2 / 10

In case of inhalation:

In the event of exposure to vapors, immediately remove from the area to a fresh air environment.

In case of skin contact:

Remove contaminated clothes. Wash skin with large volumes of water.

If irritation persists, or any sign of tissue damage is apparent, obtain medical advice immediately.

In case of ingestion:

In the event of accidental ingestion, rinse mouth with water. Give up to one tumbler (half pint) of milk or water.

Obtain medical advise immediately.

Do not induce vomiting, obtain medical advise immediately.

4.2 Most important symptoms and effects, both acute and delayed

No specific data available.

4.3 Indication of immediate medical attention and special treatment needed

No specific data available.

SECTION 5. FIRE-FIGHTING MEASURES

5.1 Extinguishing media

In the event of fire, adequate extinguishers should be used. Avoid inhalation of smoke and fumes. In case of insufficient ventilation, wear suitable respiratory equipment.

Use standard procedures and preferred extinguishing media as stated below.

Extinguishing media: Foam, carbon dioxide or dry chemical.

5.2 Special hazard arising from the substance or mixture

None.

5.3 Advice for fire-fighters

No specific advice.

SECTION 6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel:

Gloves impervious to the chemical substance should be worn when handling spillages. No smoking. Avoid naked flames or other potential sources of ignition (eg. electrical equipment).

Avoid skin contamination and inhalation of vapour.

Individual washing routines should be followed after any potential contact.

Ensure adequate ventilation in working areas following accidental releases.

For emergency personnel:

Apply the same recommendations as section 6.1

6.2 Environmental precautions

Do not discharge directly into drains, air, into soil or into the aquatic environment.

6.3 Methods and material for containment and cleaning up

For containment:

Small spills can be wiped up with a cloth or paper. Standard absorbents can be used (saw dust, sand, vermiculite). Wear rubber gloves. Avoid contact with skin. If skin contact occurs, wash liberally with soap and water.

For cleaning-up:

Spillages should be disposed of in accordance with Governmental Regulations.

SECTION 7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Avoid contact with skin and eyes.

Wear gloves impervious to the chemical substance and eye/face protection.

No smoking. Avoid any sources of ignition.

Avoid exposing to high temperature during processing.

Do not ingest or apply to the skin as such. Good personal washing routines should be followed.

Maintain adequate local and general ventilation where product is handled.

Protective measures

Keep strict control of dust accumulation to a minimum.Maintain adequate local and general ventilation where product is handled.Avoid any sources of ignition.

Advice on general occupational hygiene

Good personal washing routines should be followed.

7.2 Conditions for safe storage, including any incompatibilities

It is good general practice to store in closed, preferably full, containers away from heat sources, and protected from extremes of temperature. Do not re-use the empty container.

Respect generals rules for compatibility storage.

7.3 Specific end use(s)

Not available at this time.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Contains no substances with occupational exposure limit values

Derived No Effect Level (DNEL)

Hazard conclusion Worker (dermal), No hazard identified.

Hazard conclusion Worker (inhalation), No hazard identified.

Hazard conclusion Consumer (oral), No hazard identified.

Hazard conclusion Consumer (inhalation), No hazard identified.

Hazard conclusion Consumer (dermal), No hazard identified.

Page 4 / 10

Predicted No Effect Concentration (PNEC)

PNEC Aqua (freshwater) = 4 µg/l

PNEC Aqua (marine water) = 0.4 µg/l

PNEC Water (intermittent release) = 11 µg/l

PNEC Sediment (freshwater) = 8.41 mg/kg sediment dw

PNEC Sediment (marine water) = 0.84 mg/kg sediment dw

PNEC STP = 10 mg/l

PNEC Soil = 1.236 mg/kg soil dw

PNEC Air No hazard identified.

PNEC Oral (secondary poisoning) = 222.2 mg/kg food

8.2 Exposure controls

Avoid exposing to high temperature during processing.

Maintain adequate local and general ventilation where product is handled.

Appropriate engineering controls

Maintain adequate local and general ventilation where product is handled and dispensed.

Environmental exposure controls

Not available at this time. Minimize release to the environment.

Personal protection

Respiratory protection: None required; avoid breathing vapors.

Hand protection: Gloves impervious to the chemical substance should be worn.

Eye protection: Adequate safety glasses should be used.

Skin protection: Wear protective clothing, overall if necessary to limit the odour contamination of personal clothing. Individual washing routines should be followed after any potential contact.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance : LIQUID

Colour : COLOURLESS TO VERY PALE YELLOW

Odour : Characteristic strong odour according to the commercial description of the substance.

pH : Not available

Melting point/range (°C) : < -20 °C (Method A1)

Initial boiling point/range : = 282 - 303 °C (Method A2)

Flash point (closed cup) : = 282 Fahrenheit (= 139 Centigrade)

Evaporation rate : Not available

Flammability (solid/gas) : The product is not flammable.

Explosive properties (St class) : N/A

Vapor pressure (At 20°C in mm Hg) : < 0.1 mm

Vapour density : Not available

Relative density (d 20/20) : = 0.93833 at 20°C (Method A3)

Water solubility (20°C) : = 4.7 mg/l at (OECD 105)

Partition coef. (n-octanol/water) : Log Kow = 4.68 (Method A8)

Page 5 / 10

Auto-ignition temperature (°C) : = 294 °C at 100.77 - 101.31kPa (Method A15)

Decomposition temperature : Not available

Viscosity : = 6.773 mPa.s at 40°C (OECD 114)

= 14.840 mPa.s at 20°C (OECD 114)

Explosive properties : Not available

Oxidizing properties : Not available

9.2 Other safety information

None

SECTION 10. STABILITY AND REACTIVITY

10.1 Reactivity

No reaction known with water.

10.2 Chemical stability

Presents no significant reactivity hazard. Normally stable even at elevated temperatures and pressures. Avoid temperatures above or near to the flash point. Not pyrophoric nor reactive with water. Does not undergo explosive decomposition, is shock stable, and is not an oxygen donor. Does not form explosive mixtures with other organic materials. Will not undergo hazardous exothermic polymerization.

10.3 Possibility of hazardous reactions

Not known.

10.4 Conditions to avoid

Avoid temperatures above or at least 5 °C below flash point for any flammable liquids.

Do not heat closed containers.

Avoid contact with oxidizing agents.

10.5 Incompatible materials

Avoid strong oxidizing agents.

10.6 Hazardous decomposition products

Contact with water or storage under recommended conditions for one year should not produce dangerous decomposition products.

SECTION 11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

(a) acute toxicity

Acute oral toxicity (Rat, OECD 401, Gavage): LD50 > 2000 mg/kg

Acute dermal toxicity (Rat, OECD 402): LD50 > 2000 mg/kg

(b) skin corrosion/irritation

Primary Skin irritation (OECD 404 modified) (Rabbit, Semi-occlusive): Non irritant

(c) serious eye damage/irritation

Acute Eye irritation (Rabbit): Non irritant

(d) respiratory or skin sensitisation

Guinea pig Maximisation test (OECD 406): Non-sensitising to skin

(e) germ cell mutagenicity

Bacterial Reverse Mutation test (Ames) (Salmonella + E. Coli, OECD 471, With and without S9, 5 strains): Non mutagenic

In vitro mammalian cell gene mutation test (Chinese hamster, OECD 476, With and without S9): Non mutagenic

In vitro Mammalian Chromosome Aberration Test (Human, OECD 473): No chromosomal aberration

(f) carcinogenicity

No data available

(g) reproductive toxicity

One-Generation Reproduction Toxicity Study (Rat, OECD 415, Gavage, 14 day(s)): NOAEL = 1000 mg/kg/day

Prenatal development toxicity study (Rat, OECD 414, Gavage, 14 day(s)):

NOAEL (maternal) = 1000 mg/kg/day

NOAEL (development) = 1000 mg/kg/day

(h) STOT-single exposure

No data available

(i) STOT-repeated exposure

Repeated Dose 28-Day Oral Toxicity Study in Rodents (Rat, Gavage): NOAEL = 1000 mg/kg

Repeated Dose 90-Day Oral Toxicity Study in Rodents (Rat, OECD 408, Gavage): NOAEL = 1000 mg/kg/day (Female)

(j) aspiration hazard

No data available

SECTION 12. ECOLOGICAL INFORMATION

12.1 Toxicity

Alga, Growth Inhibition Test (Selenastrum capricornutum, OECD 201, Static):

96 h ErC50 > 1.1 mg/l (Based on measured concentrations)

96 h NOEC >= 1.1 mg/l (Based on measured concentrations)

Daphnia sp. Acute Immobilisation Test (OECD 202, Static): 48h EC50 = 3.3 mg/l (Based on nominal

concentrations)

Fish, Acute Toxicity Test (Rainbow trout (Oncorhynchus Mykiss), OECD 203, Semi-static): 96h LC50 = 3.6 mg/l (Based on measured concentrations)

Activated Sludge, Respiration Inhibition Test : 72h NOEC > 100 mg/l (Based on nominal concentrations)

Daphnia magna Reproduction Test (OECD 211, 21 day(s)): NOEC = 0.27 mg/l (Based on time weighted average concentrations)

Data on metabolite - Fish, Early-Life Stage Toxicity Test (QSAR-OECD210, 30 day(s)): NOEC = 0.17 mg/l

Soil Microorganisms - Nitrogen Transformation Test (OECD 216, 28 day(s)): EC50 = 304 mg/kg (Based on nominal concentrations)

Earthworm Reproduction Test (Eisenia andrei, OECD 222, 56 day(s)): EC10 = 61.8 mg/kg (Based on nominal concentrations)

12.2 Persistence and degradability

Ready Biodegradation - Modified MITI Test (OECD 301C, Sludge): Non readily biodegradable (19% in 28 day(s))

Hydrolysis as a Function of pH (OECD 111): Estimated Half-life at pH7 > 1 year Stable but unstable in basic conditions

Hydrolysis as a Function of pH (OECD 111): Estimated Half-life at pH9 = 224 h

12.3 Bioaccumulative potential

Data on metabolite - Bioconcentration, Flow-through Fish Test (OECD 305, Cyprinus carpio): BCF = 15 - 17 L/kg,

Log Kow = 4.68 (Method A8)

12.4 Mobility in soil

Adsorption coefficient (OECD 121): Log Koc = 4.3

12.5 Results of PBT and vPvB assessment

Not applicable

12.6 Other adverse effects

No data available

SECTION 13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product: The product should be handled according to the instructions given under sections 6, 7 and 8. Dispose of according to local or national regulations. The product should not be allowed to enter drains or the

environment.

Contaminated packaging: Empty packaging should be disposed according to local or national regulations by an approved waste handling

SECTION 14. TRANSPORT INFORMATION

In case of accidental spillage or fire during transport, refer to instructions given under points 5, 6, 7 and 8 above.

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Page 8 / 10

UN-No: 3082

Proper Shipping Name: Environmentally hazardous substance, liquid, n.o.s. (CYCLOETHOXY ISOBUTYLPROPANOATE)

Class: 9

Packing Group: III

Hazardous to the Environment

Land transport (ADR/RID)

UN-No: 3082

Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CYCLOETHOXY ISOBUTYLPROPANOATE)

Class: 9

Packing group: III

Sea transport (IMDG-Code)

UN-No: 3082

Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CYCLOETHOXY ISOBUTYLPROPANOATE)

Class: 9

Packing group: III

Marine pollutant

Air transport (ICAO-IATA)

UN-No: 3082

Proper Shipping Name: Environmentally hazardous substance, liquid, n.o.s. (CYCLOETHOXY ISOBUTYLPROPANOATE)

Class: 9

Packing group: III

SECTION 15. REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture:

This chemical is NOT subject to reporting requirements of Section 313 of Title III of the Superfund

Amendements and Reauthorization Act of 1986 and 29 CFR Part 1910.1200.

15.2 Chemical Safety Assessment

No data available at this time.

SECTION 16. OTHER INFORMATION

Revisions

March-2024 : Version 13.0 - Updates to sections 1, 2, 3, 9, 11, 14, 15, 16

Page 9 / 10

Key literature references

RIFM database

OECD SIDS

EU IUCLID

Supplier information

Full text of phrases used under section 2

H411 Toxic to aquatic life with long lasting effects.

P273 Avoid release to the environment.

P391 Collect spillage.

Full text of phrases used under section 3

H411 Toxic to aquatic life with long lasting effects.

Prepared from supplied safety data. No independent testing or regulatory update verification performed. Confirm product grade and emergency contact coverage before distribution.