Safety Data Sheet

TargetMol®
YOUR TARGET MOLECULES

Creation Date: May 29, 2024
Revision Date: May 29, 2024

According to the UN GHS revision 8

1. IDENTIFICATION

1.1 GHS Product identifier

Product name: Ethylvanillin

Catalog Number: T0491

CAS Number: 121-32-4

1.2 Other means of identification

Other names: -

1.3 Recommended use of the chemical and restrictions on use

Identified uses: no data available

1.4 Supplier's details

Company: Targetmol Chemicals Inc.

Uses advised against: 36 Washington Street,Wellesley Hills, Massachusetts 02481 USA

Tel/Fax: (781) 999-4286

1.5 Emergency phone number

Emergency phone number: 781-999-4286

Service hours: Monday to Friday, 9am-5pm (Standard timezone:UTC/GMT -5hours).

2. HAZARD IDENTIFICATION

2.1 Classification of the substance or mixture

Eye irritation, Category 2

2.2 GHS label elements, including precautionary statements

Pictogram(s):

Signal word: Warning

Hazard statement(s): H319 Causes serious eye irritation

Precautionary statement(s):

Prevention: P264 Wash ... thoroughly after handling.
P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection/...

Response: P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Storage: none

Disposal: none

2.3 Other hazards which do not resultin classification

no data available

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Chemical name	Common names and synonyms	CAS number	EC number
Ethylvanillin	-	121-32-4	204-464-7

4. FIRST-AID MEASURES

4.1 Description of necessary first-aid measures

General advice

no data available

If inhaled

Move the victim into fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration and consult a d°Ctor immediately. Do not use mouth to mouth resuscitation if the victim ingested or inhaled the chemical.

Following skin contact

Take off contaminated clothing immediately. Wash off with soap and plenty of water. Consult a d°Ctor.

Following eye contact

Rinse with pure water for at least 15 minutes. Consult a d°Ctor.

Following ingestion

Rinse mouth with water. Do not induce vomiting. Never give anything by mouth to an unconscious person. Call a d°Ctor or Poison Control Center immediately.

4.2 Most important symptoms/effects, acute and delayed

Immediate first aid: Ensure that adequate decontamination has been carried out. If patient is not breathing, start artificial respiration, preferably with a demand-valve resuscitator, bag-valve-mask device, or p°Cket mask, as trained. Perform CPR as necessary. Immediately flush contaminated eyes with gently flowing water. Do not induce vomiting. If vomiting °Ccurs, lean patient forward or place on left side (head-down position, if possible) to maintain an open airway and prevent aspiration. Keep patient quiet and maintain normal body temperature. Obtain medical attention. Phenols and related compounds

4.3 Indication of immediate medical attention and special treatment needed, if necessary

ACUTE/CHRONIC HAZARDS: Toxic. May cause irritation on contact. (NTP, 1992)

5. FIRE-FIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2 Specific hazards arising from the chemical

Combustible (NTP, 1992)

5.3 Special protective actions for fire-fighters

Wear self-contained breathing apparatus for firefighting if necessary.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Avoid dust formation. Avoid breathing mist, gas or vapours.Avoid contacting with skin and eye. Use personal protective equipment.Wear chemical impermeable gloves. Ensure adequate ventilation.Remove all sources of ignition. Evacuate personnel to safe areas.Keep people away from and upwind of spill/leak.

6.2 Environmental precautions

Prevent further spillage or leakage if it is safe to do so. Do not let the chemical enter drains. Discharge into the environment must be avoided.

6.3 Methods and materials for containment and cleaning up

Collect and arrange disposal. Keep the chemical in suitable and closed containers for disposal. Remove all sources of ignition. Use spark-proof tools and explosion-proof equipment. Adhered or collected material should be promptly disposed of, in accordance with appropriate laws and regulations.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Handling in a well ventilated place. Wear suitable protective clothing. Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Use non-sparking tools. Prevent fire caused by electrostatic discharge steam.

7.2 Conditions for safe storage, including any incompatibilities

Should not be stored near powerful oxidizers or in areas of high fire hazard. They should be kept cool and the containers electrically grounded to avoid sparks. Ethers

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Occupational Exposure limit values

no data available

Biological limit values

no data available

8.2 Appropriate engineering controls

Ensure adequate ventilation. Handle in accordance with good industrial hygiene and safety practice. Set up emergency exits and the risk-elimination area.

8.3 Individual protection measures, such as personal protective equipment (PPE)

Eye/face protection

Wear tightly fitting safety goggles with side-shields conforming to EN 166(EU) or NIOSH (US).

Skin protection

Wear fire/flame resistant and impervious clothing. Handle with gloves. Gloves must be inspected prior to use. Wash and dry hands. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Respiratory protection

If the exposure limits are exceeded, irritation or other symptoms are experienced, use a full-face respirator.

Thermal hazards

no data available

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state	Solid. Powder.
Color	White - off white.
Odour	Finer and more intense vanilla
Melting point/ freezing point	76.5 °C.
Boilingpoint or initial boiling point and boiling range	285 °C.
Flammability	no data available
Lower and upper explosion limit/flammability limit	no data available
Flash point	> 93 °C.
Auto-ignition temperature	Remarks:No self ignition temperature of the test item was observed up to 400 °C (corrected value).
Decomposition temperature	no data available
pH	Solutions are acid to litmus

Kinematic viscosity	no data available
Solubility	DMSO: 50 mg/mL (300.9 mM), H2O: 12 mM,
N-octanol-water partition coefficient	log Pow = 1.58. Temperature:25 °C.
Vapour pressure	0.03 Pa. Temperature:25 °C. Remarks:Extrapolated value.
Density and/ or relative density	1.307. Temperature:20.6 °C.
Relative vapour density	no data available
Particle characteristics	no data available

10. STABILITY AND REACTIVITY

10.1 Reactivity

Slightly water soluble (NTP, 1992).

10.2 Chemical stability

Not stable; in contact with iron or alkali, it exhibits a red color & loses its flavoring power

10.3 Possibility of hazardous reactions

Protect from light. (NTP, 1992) Aldehydes are readily oxidized to give carboxylic acids. Flammable and/or toxic gases are generated by the combination of aldehydes with azo, diazo compounds, dithi°Carbamates, nitrides, and strong reducing agents. Aldehydes can react with air to give first peroxo acids, and ultimately carboxylic acids. These autoxidation reactions are activated by light, catalyzed by salts of transition metals, and are aut°Catalytic (catalyzed by the products of the reaction). The addition of stabilizers (antioxidants) to shipments of aldehydes retards autoxidation.

10.4 Conditions to avoid

no data available

10.5 Incompatible materials

Incompatible with oxidizing materials, BI3. Ethers

10.6 Hazardous decomposition products

When heated to decomposition it emits acrid smoke and irritating fumes.

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Oral: LD50 Rabbit oral 3000 mg/kg
Inhalation: no data available
Dermal: no data available

Skin corrosion/irritation

no data available

Serious eye damage/irritation

no data available

Respiratory or skin sensitization

no data available

Germ cell mutagenicity

no data available

Carcinogenicity

no data available

Reproductive toxicity

no data available

STOT-single exposure

no data available

STOT-repeated exposure

no data available

Aspiration hazard

no data available

12. ECOLOGICAL INFORMATION

12.1 Toxicity

Toxicity to fish: LC50 - Pimephales promelas - 87.6 mg/L - 96 h.
Toxicity to daphnia and other aquatic invertebrates: EC50 - Daphnia magna - 36.79 mg/L - 48 h.
Toxicity to algae: EC50 - Pseudokirchneriella subcapitata (previous names: Raphid°Celis subcapitata, Selenastrum capricornutum) - 120 mg/L - 72 h.
Toxicity to microorganisms: IC50 - Tetrahymena pyriformis - 158.7 mg/L - 40 h.

12.2 Persistence and degradability

AEROBIC: Ethyl vanillin reached 52.9% of its theoretical BOD in 5 days using an acclimated mixed microbial culture in the Closed Bottle test (1). Ethyl vanillin, present at 100 mg/L, reached 88% of its theoretical BOD in 2 weeks using an activated sludge in°Culum at 30 mg/L in the Japanese MITI test(2).

12.3 Bioaccumulative potential

An estimated BCF of 5 was calculated in fish for ethyl vanillin(SRC), using a log Kow of 1.58(1) and a regression-derived equation(1). According to a classification scheme(2), this BCF suggests the potential for bi°Concentration in aquatic organisms is low(SRC).

12.4 Mobility in soil

The K°C of ethyl vanillin is estimated as 60(SRC), using a log Kow of 1.58(1) and a regression-derived equation(2). According to a classification scheme(3), this estimated K°C value suggests that ethyl vanillin is expected to have high mobility in soil. The pKa of the related compound vanillin is 7.4(3). By analogy, this value suggests that ethyl vanillin will exist partially in anion form in the environment and anions generally do not adsorb more strongly to soils containing organic carbon and clay than their neutral counterparts(4).

12.5 Other adverse effects

no data available

13. DISPOSAL CONSIDERATIONS

13.1 Disposal methods

Product

The material can be disposed of by removal to a licensed chemical destruction plant or by controlled incineration with flue gas scrubbing. Do not contaminate water, foodstuffs, feed or seed by storage or disposal. Do not discharge to sewer systems.

Contaminated packaging

Containers can be triply rinsed (or equivalent) and offered for recycling or reconditioning. Alternatively, the packaging can be punctured to make it unusable for other purposes and then be disposed of in a sanitary landfill. Controlled incineration with flue gas scrubbing is possible for combustible packaging materials.

14. TRANSPORT INFORMATION

14.1 UN Number

no data available

14.2 UN Proper Shipping Name

no data available

14.3 Transport hazard class(es)

no data available

14.4 Packing group, if applicable

no data available

14.5 Environmental hazards

no data available

14.6 Special precautions for user

no data available

14.7 Transport in bulk according to IMO instruments

no data available

15. REGULATORY INFORMATION

15.1 Safety, health and environmental regulations specific for the product in question

European Inventory of Existing Commercial Chemical Substances (EINECS)	Listed.
EC Inventory	Listed.
United States Toxic Substances Control Act (TSCA) Inventory	Listed.
China Catalog of Hazardous chemicals 2015	Not Listed.
New Zealand Inventory of Chemicals (NZI°C)	Listed.
Philippines Inventory of Chemicals and Chemical Substances (PICCS)	Listed.
Vietnam National Chemical Inventory	Listed.
Chinese Chemical Inventory of Existing Chemical Substances (China IECSC)	Listed.
Korea Existing Chemicals List (KECL)	Listed.

16. OTHER INFORMATION

Information on revision

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Abbreviations and acronyms

- CAS: Chemical Abstracts Service
- ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road
- RID: Regulation concerning the International Carriage of Dangerous Goods by Rail
- IMDG: International Maritime Dangerous Goods
- IATA: International Air Transportation Association
- TWA: Time Weighted Average
- STEL: Short term exposure limit
- LC50: Lethal Concentration 50%
- LD50: Lethal Dose 50%
- EC50: Effective Concentration 50%

References

IPCS - The International Chemical Safety Cards (ICSC), website: http://www.ilo.org/dyn/icsc/showcard.home
HSDB - Hazardous Substances Data Bank, website: https://toxnet.nlm.nih.gov/newtoxnet/hsdb.htm
IARC - International Agency for Research on Cancer, website: http://www.iarc.fr/
eChemPortal - The Global Portal to Information on Chemical Substances by OECD, website: http://www.echemportal.org/echemportal/index?pageID=0&request_l°Cale=en
CAMEO Chemicals, website: http://came°Chemicals.noaa.gov/search/simple
ChemIDplus, website: http://chem.sis.nlm.nih.gov/chemidplus/chemidlite.jsp
ERG - Emergency Response Guidebook by U.S. Department of Transportation, website: http://www.phmsa.dot.gov/hazmat/library/erg
Germany GESTIS-database on hazard substance, website: http://www.dguv.de/ifa/gestis/gestis-stoffdatenbank/index-2.jsp
ECHA - European Chemicals Agency, website: https://echa.europa.eu/

Other Information

no data available