

Safety Data Sheet

according to Regulation (EC) No 1907/2006 (REACH)
Classifications according to Regulation (EC) No 1272/2008.
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1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product name:

Isovaleraldehyd-DNPH

1.1. Catalog No.:

689566

1.2. Relevant identified uses of the substance or mixture

Identified: Laboratory chemical
uses: R&D

1.3. Uses advised against:

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Am Wieseneck 7

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1.4. Emergency telephone number

HPC Standards Tel. +49 34291 3372-36
This number is only available during office hours.

2. HAZARDS IDENTIFICATION

- 2.1 Classification of the substance or mixture
- Classification according to Regulation (EC) No 1272/2008
GHS07
Skin Irrit. 2 H315 Causes skin irritation.
Eye Irrit. 2 H319 Causes serious eye irritation.
STOT SE 3 H335 May cause respiratory irritation.

2.2. Label elements

2.2.1. Pictogram



2.2.2.

- 2.2 Label elements
- Labelling according to Regulation (EC) No 1272/2008
The substance is classified and labelled according to the CLP regulation.

- Hazard pictograms
GHS07
- Signal word Warning
- Hazard statements
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H335 May cause respiratory irritation.
- Precautionary statements
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P280 Wear protective gloves / eye protection / face protection.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P321 Specific treatment (see on this label).
P405 Store locked up.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.
- 2.3 Other hazards
- Results of PBT and vPvB assessment
- PBT: Not applicable.
- vPvB: Not applicable.

3. COMPOSITION/INFORMATION ON INGREDIENTS

- 3.1 Chemical characterisation: Substances
- CAS No. Description
2256-01-1 Isovaleraldehyde-DNPH
- Identification number(s) None
- EC number: 621-321-8
- RTECS: -
- Additional information: For the wording of the listed hazard phrases refer to section 16.

3.1.1. Formula

C₁₁H₁₄N₄O₄

3.1.2. Molecular Weight (g/mol)

266.25

3.1.3. CAS-No.

2256-01-1

4. FIRST AID MEASURES

- 4.1 Description of first aid measures
- General information: Immediately remove any clothing soiled by the product.
- After inhalation: Supply fresh air; consult doctor in case of complaints.
- After skin contact:
Immediately wash with water and soap and rinse thoroughly.
If skin irritation continues, consult a doctor.
- After eye contact:
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- After swallowing: Rinse mouth. Do not induce vomiting.
- 4.2 Most important symptoms and effects, both acute and delayed No further relevant information available.
- 4.3 Indication of any immediate medical attention and special treatment needed
No further relevant information available.

5. FIRE-FIGHTING MEASURES

- 5.1 Extinguishing media
- Suitable extinguishing agents: Use fire extinguishing methods suitable for surrounding conditions.
- 5.2 Special hazards arising from the substance or mixture
Formation of toxic gases is possible during heating or in case of fire.
- 5.3 Advice for firefighters
- Protective equipment: Wear self-contained respiratory protective device.

6. ACCIDENTAL RELEASE MEASURES

- 6.1 Personal precautions, protective equipment and emergency procedures Avoid formation of dust.
- 6.2 Environmental precautions: Do not allow to enter sewers/ surface or ground water.
- 6.3 Methods and material for containment and cleaning up:
Dispose of contaminated material as waste according to item 13.
Ensure adequate ventilation.
- 6.4 Reference to other sections
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment
See Section 13 for disposal information

7. HANDLING AND STORAGE

- 7.1 Precautions for safe handling

Ensure good ventilation/extraction at the workplace.

Store in cool, dry place in tightly closed receptacles.

- Information about fire - and explosion protection: No special measures required.

- 7.2 Conditions for safe storage, including any incompatibilities

- Storage:

- Requirements to be met by storerooms and receptacles:

Please refer to the manufacturers certificate for specific storage and transport temperature conditions.

Store only in the original receptacle.

Keep container in a well-ventilated place. Keep away from sources of ignition and heat.

- Information about storage in one common storage facility: Store away from foodstuffs.

- Further information about storage conditions: Keep container tightly sealed.

- 7.3 Specific end use(s) No further relevant information available

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

- Additional information about design of technical facilities: No further data; see item 7.

- 8.1 Control parameters

- Ingredients with limit values that require monitoring at the workplace: Not required.

- Additional information: Lists used were valid at the time of SDS preparation.

- 8.2 Exposure controls

- Personal protective equipment:

- General protective and hygienic measures:

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

- Respiratory protection:

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

- Protection of hands:

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

The protective gloves to be used must comply with the specifications of EC Directive 89/686/EEC and the related standard EN374

Protective gloves

- Material of gloves Nitrile rubber, NBR

- Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

- Eye protection:

Tightly sealed goggles

9. PHYSICAL AND CHEMICAL PROPERTIES

- 9.1 Information on basic physical and chemical properties

- General Information

- Appearance:

Form: Solid

Colour: Dark yellow

- Odour: Odourless

- Odour threshold: Not determined.

- pH-value: Not applicable.

- Change in condition

Melting point/freezing point: 126 °C

Initial boiling point and boiling range: Not determined.

- Flash point: Not applicable.

- Flammability (solid, gas): Not determined.

- Ignition temperature: Not determined

- Decomposition temperature: Not determined.

- Auto-ignition temperature: Not determined.
- Explosive properties: Not determined.
- Explosion limits:
Lower: Not determined.
Upper: Not determined.
- Vapour pressure: Not applicable.
- Density: Not determined.
- Relative density Not determined.
- Vapour density Not applicable.
- Evaporation rate Not applicable.
- Solubility in / Miscibility with
water: Not determined.
- Partition coefficient: n-octanol/water: Not determined.
- Viscosity:
Dynamic: Not applicable.
Kinematic: Not applicable.
- 9.2 Other information No further relevant information available.

10. STABILITY AND REACTIVITY

- 10.1 Reactivity Stable under normal conditions.
- 10.2 Chemical stability Stable under normal conditions.
- Thermal decomposition / conditions to be avoided:
Formation of toxic gases is possible during heating or in case of fire.
- 10.3 Possibility of hazardous reactions No dangerous reactions known.
- 10.4 Conditions to avoid Heat.
- 10.5 Incompatible materials: Strong oxidizing agents.
- 10.6 Hazardous decomposition products:
Formation of toxic gases is possible during heating or in case of fire.

11. TOXICOLOGICAL INFORMATION

- 11.1 Information on toxicological effects
- Acute toxicity Based on available data, the classification criteria are not met.
- Primary irritant effect:
Skin corrosion/irritation
Causes skin irritation.
- Serious eye damage/irritation
Causes serious eye irritation.
- Respiratory or skin sensitisation Based on available data, the classification criteria are not met.
- CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)
- Germ cell mutagenicity Based on available data, the classification criteria are not met.
- Carcinogenicity Based on available data, the classification criteria are not met.
- Reproductive toxicity Based on available data, the classification criteria are not met.
- STOT-single exposure
May cause respiratory irritation.
- STOT-repeated exposure Based on available data, the classification criteria are not met.
- Aspiration hazard Based on available data, the classification criteria are not met.

12. ECOLOGICAL INFORMATION

- 12.1 Toxicity
- Aquatic toxicity: No further relevant information available.
- 12.2 Persistence and degradability No further relevant information available.
- 12.3 Bioaccumulative potential No further relevant information available.
- 12.4 Mobility in soil No further relevant information available.
- Additional ecological information:
- General notes:
Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water
Do not allow undiluted product to reach ground water, water course or sewage system.
- 12.5 Results of PBT and vPvB assessment
- PBT: Not applicable.
- vPvB: Not applicable.
- 12.6 Other adverse effects No further relevant information available.

13. DISPOSAL CONSIDERATIONS

- 13.1 Waste treatment methods
- Recommendation
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
- European waste catalogue
Waste disposal key numbers from EWC have to be assigned depending on origin and processing
- Uncleaned packaging:
- Recommendation: Dispose of in accordance with national regulations

14. TRANSPORT INFORMATION

- 14.1 UN-Number
- ADR, IMDG, IATA Not applicable
- ADR, IMDG, IATA Not applicable
- 14.3 Transport hazard class(es)
- ADR, IMDG, IATA
- Class Not applicable
- 14.4 Packing group
- ADR, IMDG, IATA Not applicable
- 14.5 Environmental hazards: Not applicable.
- 14.6 Special precautions for user Not applicable.
- 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code Not applicable.
- UN "Model Regulation": Not applicable

15. REGULATORY INFORMATION

- 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
- Philippines Inventory of Chemicals and Chemical Substances Substance is not listed.
- Australian Inventory of Chemical Substances Substance is not listed.
- Standard for the Uniform Scheduling of Medicines and Poisons Substance is not listed.
- Directive 2012/18/EU
- Named dangerous substances - ANNEX I Substance is not listed.

· 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16. OTHER INFORMATION

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. For lab use only!