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Safety Data Sheet

according to Regulation (EC) No 1907/2006 (REACH)
Classifications according to Regulation (EC) No 1272/2008.
Printdate 17 May 2023

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product name:

4-Methyl-2-pentanol

1.1. Catalog No.:

682527

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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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:
Flammable liquids (Category 3), H226
Eye irritation (Category 2), H319
Specific target organ toxicity - single exposure (Category 3), Respiratory system, H335

2.2. Label elements

2.2.1. Pictogram

2.2.2.

Label elements

Labelling according Regulation (EC) No 1272/2008:

Signal Word: Warning
Hazard statement(s):
H226 Flammable liquid and vapor.
H319 Causes serious eye irritation.
H335 May cause respiratory irritation.
Precautionary statement(s):
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233 Keep container tightly closed.
P240 Ground and bond container and receiving equipment.
P241 Use explosion-proof electrical/ ventilating/ lighting/ equipment.
P242 Use non-sparking tools.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Supplemental Hazard Statements: none

Reduced Labeling (<= 125 ml):
Signal Word: Warning
Hazard statement(s): none
Precautionary statement(s): none
Supplemental Hazard Statements: none

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

EC-No. : 203-551-7
Index-No. : 603-008-00-8

Component: 4-methylpentan-2-ol
Classification: Flam. Liq. 3; Eye Irrit. 2; STOT SE 3; H226, H319, H335; Concentration limits: >= 25 %: STOT SE 3, H335
Concentration: <= 100 %

3.1.1. Formula

C6H14O

3.1.2. Molecular Weight (g/mol)

102.17

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3.1.3. CAS-No.

108-11-2

4. FIRST AID MEASURES

4.1 Description of first-aid measures

General advice: Show this material safety data sheet to the doctor in attendance.
After inhalation: fresh air.
In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower.
After eye contact: rinse out with plenty of water. Call in ophthalmologist. Remove contact lenses.
After swallowing: immediately make victim drink water (two glasses at most). Consult a physician.

4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11.

4.3 Indication of any immediate medical attention and special treatment needed

No data available.

5. FIRE-FIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media:
Foam, Carbon dioxide (CO2), Dry powder
Unsuitable extinguishing media:
For this substance/mixture no limitations of extinguishing agents are given.

5.2 Special hazards arising from the substance or mixture

Combustible.
Forms explosive mixtures with air at elevated temperatures.
Development of hazardous combustion gases or vapours possible in the event of fire.

5.3 Advice for firefighters

In the event of fire, wear self-contained breathing apparatus.

5.4 Further information

Remove container from danger zone and cool with water. Prevent fire extinguishing water from contaminating surface water or the ground water system.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel: Do not breathe vapors, aerosols. Avoid substance contact. Ensure adequate

ventilation. Keep away from heat and sources of ignition. Evacuate the danger area, observe emergency procedures, consult an expert.
For personal protection see section 8.

6.2 Environmental precautions

Do not let product enter drains. Risk of explosion.

6.3 Methods and materials for containment and cleaning up

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up with liquid-absorbent material. Dispose of properly. Clean up affected area.

6.4 Reference to other sections

For disposal see section 13.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Advice on protection against fire and explosion:
Keep away from open flames, hot surfaces and sources of ignition.Take precautionary measures against static discharge.
Hygiene measures:
Change contaminated clothing. Wash hands after working with substance.
For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities

Storage conditions:
Keep container tightly closed in a dry and well-ventilated place. Keep away from heat and sources of ignition.
Storage stability:
Recommended storage temperature 2-30 °C
Storage class:
Storage class (TRGS 510): 3: Flammable liquids

7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Ingredients with workplace control parameters

8.2 Exposure controls

Personal protective equipment:
Eye/face protection:
Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Safety glasses.
Skin protection:
required
Body Protection:
Flame retardant antistatic protective clothing.
Respiratory protection:
required when vapours/aerosols are generated.
Our recommendations on filtering respiratory protection are based on the following standards: DIN EN 143, DIN 14387 and other accompanying standards relating to the used respiratory protection system.

Recommended Filter type: Filter type ABEK
The entrepeneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer. These measures have to be properly documented.
Control of environmental exposure:
Do not let product enter drains. Risk of explosion.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

a) Physical state: liquid
b) Color: No data available
c) Odor: No data available
d) Melting point/freezing point: No data available
e) Initial boiling point and boiling range: No data available
f) Flammability (solid, gas): No data available
g) Upper/lower flammability or explosive limits: No data available
h) Flash point: 41 °C
i) Autoignition temperature: No data available
j) Decomposition temperature: No data available
k) pH: No data available
l) Viscosity: Viscosity, kinematic: No data available; Viscosity, dynamic: No data available
m) Water solubility: No data available
n) Partition coefficient: n-octanol/water: No data available
o) Vapor pressure: No data available
p) Density: No data available; Relative density: No data available
q) Relative vapor density: No data available
r) Particle characteristics: No data available
s) Explosive properties: No data available
t) Oxidizing properties: No data available

9.2 Other safety information

No data available

10. STABILITY AND REACTIVITY

10.1 Reactivity

Vapor/air-mixtures are explosive at intense warming.

10.2 Chemical stability

The product is chemically stable under standard ambient conditions (room temperature).

10.3 Possibility of hazardous reactions

No data available

10.4 Conditions to avoid

Heating.

10.5 Incompatible materials

Strong oxidizing agents

10.6 Hazardous decomposition products

In the event of fire: see section 5

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity:
LD50 Oral - Rat - 2.590 mg/kg
(OECD Test Guideline 401)
Inhalation: No data available
LD50 Dermal - Rabbit - 2.870 mg/kg
(OECD Test Guideline 402)

Skin corrosion/irritation:
Skin - Rabbit
Result: No skin irritation - 4 h
(OECD Test Guideline 404)
Serious eye damage/eye irritation
Eyes - Rabbit
Result: Irritating to eyes.
(OECD Test Guideline 405)

Respiratory or skin sensitization:
Maximization Test - Guinea pig
Result: Does not cause skin sensitization.
(OECD Test Guideline 406)

Germ cell mutagenicity:
Test Type: Ames test
Test system: S. typhimurium
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 473
Result: negative

Carcinogenicity:
No data available

Reproductive toxicity:
No data available

Specific target organ toxicity - single exposure:
May cause respiratory irritation.

Specific target organ toxicity - repeated exposure:
No data available

Aspiration hazard:
No data available

11.2 Additional Information

Endocrine disrupting properties:
Product:
Assessment: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.
To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.
Central nervous system depression, depression, narcosis, lowering of blood pressure due to cardiac depression, relaxing of smooth muscle in all regions and depressed skeletal muscle without influencing nerves.
To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

12. ECOLOGICAL INFORMATION

12.1 Toxicity

Toxicity to fish: semi-static test LC50 - Pimephales promelas (fathead minnow) - 359 mg/l - 96 h
(OECD Test Guideline 203)
Toxicity to daphnia and other aquatic invertebrates: semi-static test EC50 - Daphnia magna (Water flea) - 337 mg/l - 48 h
(OECD Test Guideline 202)
Toxicity to algae: static test EC50 - Pseudokirchneriella subcapitata - 264 mg/l - 72 h
(OECD Test Guideline 201)
Toxicity to bacteria: Respiration inhibition EC50 - Sludge Treatment - > 100 mg/l - 3 h
(OECD Test Guideline 209)

12.2 Persistence and degradability

Biodegradability: aerobic - Exposure time 28 d
Result: 85 % - Readily biodegradable.
(OECD Test Guideline 301F)
Ratio BOD/ThBOD: 85 %

12.3 Bioaccumulative potential

No data available

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6 Endocrine disrupting properties

Product:
Assessment: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

12.7 Other adverse effects
No data available

13. DISPOSAL CONSIDERATIONS

14. TRANSPORT INFORMATION

14.1 UN number

ADR/RID: 2053 IMDG: 2053 IATA: 2053

14.2 UN proper shipping name

ADR/RID: METHYL ISOBUTYL CARBINOL
IMDG: METHYL ISOBUTYL CARBINOL
IATA: Methyl isobutyl carbinol

14.3 Transport hazard class(es)

ADR/RID: 3 IMDG: 3 IATA: 3

14.4 Packaging group

ADR/RID: III IMDG: III IATA: III

14.5 Environmental hazards

ADR/RID: no IMDG Marine pollutant: no IATA: no

14.6 Special precautions for user

Tunnel restriction code: (D/E)
Further information: No data available

15. REGULATORY INFORMATION

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

This material safety data sheet complies with the requirements of Regulation (EC) No.1907/2006.

National legislation:
Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances: FLAMMABLE LIQUIDS

Other regulations:
Take note of Dir 94/33/EC on the protection of young people at work.

15.2 Chemical Safety Assessment

For this product a chemical safety assessment was not 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!