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**Safety Data Sheet**

according to Regulation (EC) No 1907/2006 (REACH)
Classifications according to Regulation (EC) No 1272/2008.
Printdate 20 Jun 2023

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

### 1.1. Product name:

L-Isoleucine

### 1.1. Catalog No.:

677579

### 1.2. Relevant identified uses of the substance or mixture

Identified uses: Laboratory chemical
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

Classification of the substance or mixture
Not a hazardous substance or mixture according to Regulation (EC) No 1272/2008.

### 2.2. Label elements

### 2.2.1. Pictogram

### 2.2.2.

2.2 Label elements
Not a hazardous substance or mixture according to Regulation (EC) No 1272/2008.
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

Substances
Formula : C6H13NO2
Molecular weight : 131,17 g/mol
CAS-No. : 73-32-5
EC-No. : 200-798-2
No components need to be disclosed according to the applicable regulations.

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### 3.1.1. Formula

C6H13NO2

### 3.1.2. Molecular Weight (g/mol)

131.17

### 3.1.3. CAS-No.

73-32-5

## 4. FIRST AID MEASURES

4.1 Description of first-aid measures
If inhaled
If breathed in, move person into fresh air. If not breathing, give artificial respiration.
In case of skin contact
Wash off with soap and plenty of water.
In case of eye contact
Flush eyes with water as a precaution.
If swallowed
Never give anything by mouth to an unconscious person. Rinse mouth with water.
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
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
5.2 Special hazards arising from the substance or mixture
Carbon oxides
Nitrogen oxides (NOx)
5.3 Advice for firefighters
Wear self-contained breathing apparatus for firefighting if necessary.
5.4 Further information
No data available

## 6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures
Avoid dust formation. Avoid breathing vapors, mist or gas.
For personal protection see section 8.
6.2 Environmental precautions
No special environmental precautions required.
6.3 Methods and materials for containment and cleaning up
Sweep up and shovel. Keep in suitable, closed containers for disposal.
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
Provide appropriate exhaust ventilation at places where dust is formed.
Hygiene measures
General industrial hygiene practice.
For precautions see section 2.2.
7.2 Conditions for safe storage, including any incompatibilities
Storage conditions
Store in cool place. Keep container tightly closed in a dry and well-ventilated place.
Storage class
Storage class (TRGS 510): 13: Non Combustible Solids
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

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties
a) Physical state solid
b) Color white
c) Odor No data available
d) Melting
point/freezing point
288 °C
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 No data available
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
log Pow: -1,581
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
No data available
10.2 Chemical stability
Stable under recommended storage conditions.
10.3 Possibility of hazardous reactions
No data available
10.4 Conditions to avoid
No data available
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 - female - > 2.000 mg/kg
(OECD Test Guideline 423)
LC50 Inhalation - Rat - male and female - 4 h - > 5,4 mg/l - aerosol
(OECD Test Guideline 403)
Dermal: No data available
Skin corrosion/irritation
Skin - Rabbit
Result: No skin irritation - 4 h
(OECD Test Guideline 404)
Serious eye damage/eye irritation
Eyes - Rabbit
Result: No eye irritation
(OECD Test Guideline 405)

Respiratory or skin sensitization
Local lymph node assay (LLNA) - Mouse
Result: negative
(OECD Test Guideline 429)
Germ cell mutagenicity
Test Type: In vitro mammalian cell gene mutation test
Test system: mouse lymphoma cells
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 476
Result: negative
Test Type: Chromosome aberration test in vitro
Test system: Chinese hamster ovary cells
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 473
Result: negative
Test Type: Ames test
Test system: Escherichia coli/Salmonella typhimurium
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 471
Result: negative
Carcinogenicity
No data available
Reproductive toxicity
No data available
Specific target organ toxicity - single exposure
No data available
Specific target organ toxicity - repeated exposure
No data available
Aspiration hazard
No data available
11.2 Additional Information
Repeated dose toxicity - Rat - male and female - Oral - 13 Weeks - NOAEL (No observed adverse effect level) - 600 mg/kg
Remarks: Subchronic toxicity
The levorotary (l) forms of leucine, isoleucine, and valine have been found to have tumorpromoting activity for bladder carcinomas.
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 - Danio rerio (zebra fish) - > 10.000 mg/l - 96 h
(OECD Test Guideline 203)
Toxicity to algae static test ErC50 - Scenedesmus capricornutum (fresh water algae) - > 10.000 mg/l - 71,5 h
(OECD Test Guideline 201)
Toxicity to bacteria
12.2 Persistence and degradability
No data available
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
No data available
12.7 Other adverse effects
Discharge into the environment must be avoided.

## 13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods
Product
Offer surplus and non-recyclable solutions to a licensed disposal company.
Contaminated packaging
Dispose of as unused product.

## 14. TRANSPORT INFORMATION

14.1 UN number
ADR/RID: - IMDG: - IATA: -
14.2 UN proper shipping name

ADR/RID: Not dangerous goods
IMDG: Not dangerous goods
IATA: Not dangerous goods
14.3 Transport hazard class(es)
ADR/RID: - IMDG: - IATA: -
14.4 Packaging group
ADR/RID: - IMDG: - IATA: -
14.5 Environmental hazards
ADR/RID: no IMDG Marine pollutant: no IATA: no
14.6 Special precautions for user
Further information
Not classified as dangerous in the meaning of transport regulations.

## 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.
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!