

## Safety Data Sheet

according to Regulation (EC) No 1907/2006 (REACH)  
Classifications according to Regulation (EC) No 1272/2008.  
Printdate 22 Jun 2023

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

### 1.1. Product name:

Trioctylamine

### 1.1. Catalog No.:

687309

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

Identified: Laboratory chemical  
uses: R&D

### 1.3. Uses advised against:

HPC Standards GmbH  
Am Wieseneck 7

04451 Cunnersdorf  
Deutschland

Tel. +49 34291 3372-36  
Fax. +49 34291 3372-39  
contact@hpc-standards.com

### 1.4. Emergency telephone number

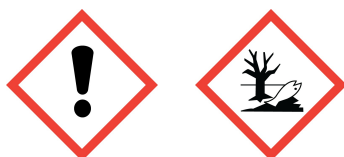
HPC Standards Tel. +49 34291 3372-36  
This number is only available during office hours.

## 2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture  
Classification according to Regulation (EC) No 1272/2008  
Skin irritation (Category 2), H315  
Eye irritation (Category 2), H319  
Long-term (chronic) aquatic hazard (Category 2), H411  
For the full text of the H-Statements mentioned in this Section, see Section 16.

### 2.2. Label elements

#### 2.2.1. Pictogram



#### 2.2.2.

2.2 Label elements  
Labelling according Regulation (EC) No 1272/2008  
Pictogram

Signal Word Warning  
Hazard statement(s)  
H315 Causes skin irritation.  
H319 Causes serious eye irritation.  
H411 Toxic to aquatic life with long lasting effects.  
Precautionary statement(s)  
P264 Wash skin thoroughly after handling.  
P273 Avoid release to the environment.  
P280 Wear protective gloves/ eye protection/ face protection.  
P302 + P352 IF ON SKIN: Wash with plenty of water.  
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes.  
Remove contact lenses, if present and easy to do. Continue rinsing.  
P332 + P313 If skin irritation occurs: Get medical advice/ attention.  
Supplemental Hazard Statements  
none  
Reduced Labeling (<= 125 ml)  
Pictogram  
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

Substances  
Formula : C<sub>24</sub>H<sub>51</sub>N  
Molecular weight : 353,67 g/mol  
CAS-No. : 1116-76-3  
EC-No. : 214-242-1  
Component: trioctylamine, n-  
CAS-No. : 1116-76-3  
Classification: Skin Irrit. 2; Eye Irrit. 2; Aquatic Chronic 2; H315, H319, H411  
Concentration: <= 100 %  
For the full text of the H-Statements mentioned in this Section, see Section 16.

#### 3.1.1. Formula

C<sub>24</sub>H<sub>51</sub>N

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

353.67

### 3.1.3. CAS-No.

1116-76-3

## 4. FIRST AID MEASURES

### 4.1 Description of first-aid measures

#### General advice

Show this material safety data sheet to the doctor in attendance.

#### If inhaled

After inhalation: fresh air.

#### In case of skin contact

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower.

#### In case of eye contact

After eye contact: rinse out with plenty of water. Call in ophthalmologist. Remove contact lenses.

#### If swallowed

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

Carbon dioxide (CO<sub>2</sub>) Foam 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

Carbon oxides

Nitrogen oxides (NO<sub>x</sub>)

Combustible.

Vapors are heavier than air and may spread along floors.

Forms explosive mixtures with air on intense heating.

Development of hazardous combustion gases or vapours possible in the event of fire.

### 5.3 Advice for firefighters

Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

### 5.4 Further information

Suppress (knock down) gases/vapors/mists with a water spray jet. 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. 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.
- 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 (e.g. Chemizorb®). 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  
For precautions see section 2.2.
- 7.2 Conditions for safe storage, including any incompatibilities  
Storage conditions  
Tightly closed.  
Storage class  
Storage class (TRGS 510): 10: Combustible 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  
This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: [www.kcl.de](http://www.kcl.de)).  
Full contact  
Material: Nitrile rubber  
Minimum layer thickness: 0,4 mm  
Break through time: 480 min  
Material tested: Camatril® (KCL 730 / Aldrich Z677442, Size M)  
This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: [www.kcl.de](http://www.kcl.de)).  
Splash contact  
Material: Nitrile rubber  
Minimum layer thickness: 0,11 mm  
Break through time: 10 min  
Material tested: KCL 741 Dermatril® L  
Body Protection  
protective clothing  
Respiratory protection

Recommended Filter type: Filter A (acc. to DIN 3181) for vapours of organic compounds

The entrepreneur 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.

## 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

Melting point: -34,6 °C

e) Initial boiling point

and boiling range

164 - 168 °C at 0,9 hPa - lit.

365 - 367 °C - lit.

f) Flammability (solid,  
gas)

No data available

g) Upper/lower

flammability or

explosive limits

No data available

h) Flash point 168 °C - c.c.

i) Autoignition

temperature

No data available

j) Decomposition

temperature

No data available

k) pH alkaline

l) Viscosity Viscosity, kinematic: No data available

Viscosity, dynamic: 15 mPa.s at 20 °C

m) Water solubility 0,0001 g/l at 25 °C

n) Partition coefficient:

n-octanol/water

log Pow: 10,35 - A remarkable bioaccumulation potential is expected (log Po/w >3), (Lit.)

o) Vapor pressure < 0,01 hPa at 20 °C

p) Density 0,809 g/cm<sup>3</sup> at 25 °C - lit.

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 none

### 9.2 Other safety information

No data available

## 10. STABILITY AND REACTIVITY

### 10.1 Reactivity

Forms explosive mixtures with air on intense heating.  
A range from approx. 15 Kelvin below the flash point is to be rated as critical.  
10.2 Chemical stability  
The product is chemically stable under standard ambient conditions (room temperature) .  
10.3 Possibility of hazardous reactions  
Caution! In contact with nitrites, nitrates, nitrous acid possible liberation of nitrosamines!  
Violent reactions possible with:  
Strong oxidizing agents  
acid halides  
Acid anhydrides  
acids  
10.4 Conditions to avoid  
Strong heating.  
10.5 Incompatible materials  
No data available  
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 - > 2.000 mg/kg  
Remarks: (External MSDS)  
Symptoms: Possible damages:, mucosal irritations  
Dermal: No data available  
Skin corrosion/irritation  
Skin - Rabbit  
Result: irritating  
(OECD Test Guideline 404)  
Serious eye damage/eye irritation  
Eyes - Rabbit  
Result: Eye irritation  
(OECD Test Guideline 405)  
Respiratory or skin sensitization  
No data available  
Germ cell mutagenicity  
No data available  
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  
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.  
RTECS: RG8225000  
To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.  
Under given conditions, contact with nitrites or nitric acid can lead to the formation of nitrosamines, which have shown themselves to be carcinogenic in animal experiments.  
Other dangerous properties can not be excluded.  
Handle in accordance with good industrial hygiene and safety practice.

## 12. ECOLOGICAL INFORMATION

### 12.1 Toxicity

No data available

Toxicity to algae EC50 - Desmodesmus subspicatus (green algae) - 1,31 mg/l - 72 h  
(DIN 38412)

Remarks: (above the solubility limit in the test medium)  
(trioctylamine, n-)

EC50 - Desmodesmus subspicatus (green algae) - 1,31 mg/l - 72 h  
(DIN 38412)

Remarks: (above the solubility limit in the test medium)  
(trioctylamine, n-)

### 12.2 Persistence and degradability

Biodegradability Result: 0 % - Not readily biodegradable.  
(OECD Test Guideline 301F)

### 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

### 13.1 Waste treatment methods

Product

See [www.retrologistik.com](http://www.retrologistik.com) for processes regarding the return of chemicals and containers, or contact us there if you have further questions.

## 14. TRANSPORT INFORMATION

### 14.1 UN number

ADR/RID: 3082 IMDG: 3082 IATA: 3082

### 14.2 UN proper shipping name

ADR/RID: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (trioctylamine, n-)

IMDG: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (trioctylamine, n-)

IATA: Environmentally hazardous substance, liquid, n.o.s. (trioctylamine, n-)

### 14.3 Transport hazard class(es)

ADR/RID: 9 IMDG: 9 IATA: 9

### 14.4 Packaging group

ADR/RID: III IMDG: III IATA: III

### 14.5 Environmental hazards

ADR/RID: yes IMDG Marine pollutant: yes IATA: yes

### 14.6 Special precautions for user

Tunnel restriction code : (-)

Further information

Packages smaller than or equal to 5 kg / L , not dangerous goods of Class 9

## 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.

: ENVIRONMENTAL HAZARDS

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!