

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



## NITRALZ® 4-Tolunitrile

Version 4.3 / REG\_EU

Revision Date: 18.03.2020

Specification: 132406

Material no.:

Date of first issue: 18.03.2020

Print Date: 19.03.2020

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1 Product identifier

Trade name : NITRALZ® 4-Tolunitrile  
Registration number : 01-2120099434-48-0000  
CAS-No. : 104-85-8  
EC-No. : 203-244-8

#### 1.2 Relevant identified uses of the substance or mixture and uses advised against

Use of the Sub-stance/Mixture : Chemical intermediate

#### 1.3 Details of the supplier of the safety data sheet

Company : AlzChem Trostberg GmbH  
Dr.-Albert-Frank-Str. 32  
83308 Trostberg, Germany  
Telephone : +49 8621 86-3351  
E-mail address of person responsible for the SDS : alz-pst@alzchem.com

#### 1.4 Emergency telephone number

Emergency telephone number : +49 8621 86-2776  
AlzChem Trostberg GmbH, Fire Brigade

### SECTION 2: Hazards identification

#### 2.1 Classification of the substance or mixture

##### Classification (REGULATION (EC) No 1272/2008)

Skin irritation, Category 2 H315: Causes skin irritation.  
Eye irritation, Category 2 H319: Causes serious eye irritation.  
Specific target organ toxicity - single exposure, Category 3 H335: May cause respiratory irritation.

#### 2.2 Label elements

##### Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms :



Signal word : Warning

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- Hazard statements : H315 Causes skin irritation.  
H319 Causes serious eye irritation.  
H335 May cause respiratory irritation.
- Precautionary statements : **Prevention:**  
P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.  
P280 Wear protective gloves/protective clothing/eye protection/face protection.
- Response:**  
P302 + P352 IF ON SKIN: Wash with plenty of soap and water.  
P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P312 Call a POISON CENTER/ doctor if you feel unwell.

### 2.3 Other hazards

A PBT/vPvB evaluation is not available, since a chemical safety evaluation is not required / has not been carried out  
When heated, formation of flammable or explosive vapour/air mixtures possible.

## SECTION 3: Composition/information on ingredients

### 3.1 Substances

Substance name : p-toluonitrile

#### Components

Chemical name	CAS-No. EC-No.	Concentration (% w/w)
4-methylbenzonitrile	104-85-8 203-244-8	>= 99

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

- General advice : Seek medical advice in case of symptoms caused by eye or skin contact, inhalation or swallowing.
- If inhaled : Bring affected person outside and ensure that he/she is comfortable.
- In case of skin contact : Wash off with plenty of water and soap immediately.
- In case of eye contact : Open the eyes and rinse thoroughly with plenty of water.
- If swallowed : Clean mouth with water and drink afterwards plenty of water.

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### 4.2 Most important symptoms and effects, both acute and delayed

None known.

### 4.3 Indication of any immediate medical attention and special treatment needed

Treatment : Treat symptomatically.

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## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

Suitable extinguishing media : Water spray, foam, CO2, dry powder.

Unsuitable extinguishing media : high volume water jet

### 5.2 Special hazards arising from the substance or mixture

Hazardous combustion products : Carbon oxides  
nitrous gases  
Hydrocyanic acid (HCN)

### 5.3 Advice for firefighters

Special protective equipment for firefighters : In the case of fire, wear respiratory protective equipment independent of surrounding air and chemical protective suit.

Further information : In case of fire cool containers or take them to a safe place. To cool, spray closed containers with water spray jet.

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## SECTION 6: Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : Wear personal protective equipment; see section 8.  
Ensure adequate ventilation.  
Keep away from heat and sources of ignition.

### 6.2 Environmental precautions

Environmental precautions : Product or extinguishing water with product must not be allowed to enter soil, sewers or natural bodies of water.

### 6.3 Methods and material for containment and cleaning up

Methods for cleaning up : Use mechanical handling equipment.  
Avoid dust formation.  
Keep in suitable, closed containers for disposal.

### 6.4 Reference to other sections

|| For disposal considerations see section 13.

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### SECTION 7: Handling and storage

#### 7.1 Precautions for safe handling

- Advice on safe handling : The substance must be handled under strictly controlled conditions according to Article 18 of the REACH regulation. Provide sufficient ventilation and exhaust at the workplace.
- Advice on protection against fire and explosion : When heated, formation of flammable or explosive vapour/air mixtures possible. Take precautionary measures against static charges, keep away from sources of ignition. Vapours are heavier than air and may spread along floors.
- Hygiene measures : Do not inhale vapours / aerosols. Avoid contact with skin, eyes and clothing. Do not eat, drink, smoke, or sniff while at work. Wash your hands and/or face before breaks and before termination of work. Take off clothing and shoes contaminated with product. Clean before reuse. Keep away from food, drink and animal feedingstuffs.

#### 7.2 Conditions for safe storage, including any incompatibilities

- Requirements for storage areas and containers : Keep tightly closed. Keep in a cool, well-ventilated place.
- Advice on common storage : Keep away from oxidizing agents.
- Packaging material : Suitable material: polypropylene, Stainless steel

#### 7.3 Specific end use(s)

- Specific use(s) : We are unaware of any specific end uses which go beyond the data reported in Section 1.

### SECTION 8: Exposure controls/personal protection

#### 8.1 Control parameters

None known.

#### 8.2 Exposure controls

##### Personal protective equipment

- Eye protection : Safety glasses
- Hand protection
- Material : Chloroprene, Recommendation: Camapren 722
- Break through time : > 480 min
- Glove thickness : 0,6 mm
- Manufacturer : Kächele-Cama Latex GmbH (KCL), Germany
- Material : Nitrile rubber, Recommendation: Camatril 730
- Break through time : > 480 min
- Glove thickness : 0,4 mm

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Manufacturer : Kächele-Cama Latex GmbH (KCL), Germany

Skin and body protection : Protective clothing

Respiratory protection : Put on Respiratory protective equipment with high gas/vapour concentrations.  
Respirator with ABEK combination filter

### SECTION 9: Physical and chemical properties

#### 9.1 Information on basic physical and chemical properties

Appearance : solid

Colour : colourless to yellowish

Odour : bitter almond

pH : No data available

Melting point/range : 29 °C

Boiling point/boiling range : 217 °C (1.013 hPa)

Flash point : 85 °C

Flammability (solid, gas) : Combustible solid.

Vapour pressure : 4 hPa (42 °C)

Density : 0,98 g/cm<sup>3</sup> (20 °C)

Bulk density : 700 kg/m<sup>3</sup>

Solubility(ies)  
Water solubility : < 1 g/l (17 °C)

Partition coefficient: n-octanol/water : log Pow: 2,08

Decomposition temperature : No data available

#### 9.2 Other information

Molecular weight : 117,15 g/mol

### SECTION 10: Stability and reactivity

#### 10.1 Reactivity

|| See section 10.3

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### 10.2 Chemical stability

No decomposition if stored and applied as directed.

### 10.3 Possibility of hazardous reactions

Hazardous reactions : No hazardous reactions are known if properly handled and stored.

### 10.4 Conditions to avoid

Conditions to avoid : Keep away from heat.

### 10.5 Incompatible materials

Materials to avoid : Strong oxidizing agents  
Strong acids and strong bases

### 10.6 Hazardous decomposition products

Hazardous decomposition products formed under fire conditions.  
see section 5

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

#### Acute toxicity

##### Components:

##### 4-methylbenzotrile:

Acute oral toxicity : LD50 (Rat): 3800 mg/kg  
Remarks: RTECS

#### Skin corrosion/irritation

##### Product:

Assessment : Causes skin irritation.

##### Components:

##### 4-methylbenzotrile:

Assessment : Irritating to skin.  
Remarks : Based on experience in human subjects

#### Serious eye damage/eye irritation

##### Product:

Assessment : Causes serious eye irritation.

##### Components:

##### 4-methylbenzotrile:

Assessment : Irritating to eyes.  
Remarks : Based on experience in human subjects

# SAFETY DATA SHEET

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### Germ cell mutagenicity

#### Components:

##### 4-methylbenzotrile:

Germ cell mutagenicity- Assessment : Not mutagenic in Ames Test, literature

### Carcinogenicity

#### Components:

##### 4-methylbenzotrile:

Carcinogenicity - Assessment : no data available

### Reproductive toxicity

#### Components:

##### 4-methylbenzotrile:

Reproductive toxicity - Assessment : no data available

### STOT - single exposure

#### Product:

Assessment : May cause respiratory irritation.

#### Components:

##### 4-methylbenzotrile:

Assessment : May cause respiratory irritation.  
Remarks : Based on experience in human subjects

### STOT - repeated exposure

#### Components:

##### 4-methylbenzotrile:

Remarks : no data available

### Aspiration toxicity

#### Components:

##### 4-methylbenzotrile:

No data available

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### Experience with human exposure

#### Components:

##### 4-methylbenzotrile:

General Information : Irritating to eyes, respiratory system and skin.

## SECTION 12: Ecological information

### 12.1 Toxicity

#### Components:

##### 4-methylbenzotrile:

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : EC50: 15,4 mg/l  
End point: Immobilization  
Exposure time: 48 d  
Species: Daphnia sp. (water flea)  
Method: OECD 202  
Remarks: Literature, IUCLID

### 12.2 Persistence and degradability

no data available

### 12.3 Bioaccumulative potential

#### Product:

Bioaccumulation : Remarks: No bioaccumulation is to be expected (log Pow <= 4).

#### Components:

##### 4-methylbenzotrile:

Partition coefficient: n-octanol/water : log Pow: 2,08  
Remarks: external MSDS

### 12.4 Mobility in soil

no data available

### 12.5 Results of PBT and vPvB assessment

#### Product:

Assessment : A PBT/vPvB evaluation is not available, since a chemical safety evaluation is not required / has not been carried out.

### 12.6 Other adverse effects

#### Product:

Additional ecological information : No further ecotoxicological data are available.  
Prevent uncontrolled release in the environment.



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### SECTION 13: Disposal considerations

#### 13.1 Waste treatment methods

- Product : Must be brought to an adequate waste treatment facility, in conformity with applicable waste disposal regulations.
- Contaminated packaging : Packaging, that can not be reused after cleaning must be disposed or recycled in accordance with all federal, national and local regulations.

### SECTION 14: Transport information

#### 14.1 UN number

Not regulated as a dangerous good

#### 14.2 UN proper shipping name

Not regulated as a dangerous good

#### 14.3 Transport hazard class(es)

Not regulated as a dangerous good

#### 14.4 Packing group

Remarks : Not classified as dangerous in the meaning of transport regulations.

**ADR**  
Remarks : Not regulated as a dangerous good  
: Not classified as dangerous in the meaning of transport regulations.

**RID**  
Remarks : Not regulated as a dangerous good  
: Not classified as dangerous in the meaning of transport regulations.

**IMDG**  
Remarks : Not regulated as a dangerous good  
: Not classified as dangerous in the meaning of transport regulations.

**IATA (Cargo)**  
Remarks : Not regulated as a dangerous good  
: Not classified as dangerous in the meaning of transport regulations.

**IATA\_P (Passenger)** : Not regulated as a dangerous good

#### 14.5 Environmental hazards

Not regulated as a dangerous good

#### 14.6 Special precautions for user

Remarks : Not classified as dangerous in the meaning of transport regulations.

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### 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable for product as supplied.

## SECTION 15: Regulatory information

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

### 15.2 Chemical safety assessment

No substance safety assessment is required for this product because it is an internal local intermediate product and/or a transported intermediate product.

## SECTION 16: Other information

### Full text of other abbreviations

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road; AICS - Australian Inventory of Chemical Substances; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - Substance of Very High Concern; TCSI - Taiwan Chemical Substance Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

### Further information

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