

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



## NITRALZ® 2-Chlorobenzonitrile

Version 6.1 / REG\_EU  
Revision Date: 16.03.2020

Specification: 132461  
Material no.:

Date of first issue: 16.03.2020  
Print Date: 25.06.2020

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

#### 1.1 Product identifier

Trade name : NITRALZ® 2-Chlorobenzonitrile  
Registration number : 01-2119852671-36-0000  
CAS-No. : 873-32-5  
Index-No. : 608-013-00-9  
EC-No. : 212-836-5

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

Use of the Sub-  
stance/Mixture : Raw material for industrial use

#### 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 num-  
ber : +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)

Acute toxicity, Category 4	H302: Harmful if swallowed.
Acute toxicity, Category 4	H312: Harmful in contact with skin.
Eye irritation, Category 2	H319: Causes serious eye irritation.
Long-term (chronic) aquatic hazard, Category 3	H412: Harmful to aquatic life with long lasting effects.

#### 2.2 Label elements

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

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



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Hazard pictograms :



Signal word : Warning

Hazard statements :  
H302 Harmful if swallowed.  
H312 Harmful in contact with skin.  
H319 Causes serious eye irritation.  
H412 Harmful to aquatic life with long lasting effects.

Precautionary statements : **Prevention:**

P273 Avoid release to the environment.  
P280 Wear protective gloves/protective clothing/eye protection/face protection.

**Response:**

P301 + P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.  
P302 + P352 IF ON SKIN: Wash with plenty of soap and 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.

**Disposal:**

P501 Dispose of contents/ container to an approved waste disposal plant.

### 2.3 Other hazards

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

Dusts can form explosive mixtures with air.

Exposure to the substance not as a solid, but e.g. in solution may endanger dermal absorption and toxic effects.

When handling hot molten mass:

When heated, formation of flammable or explosive vapour/air mixtures possible.

Risk of skin burns

## SECTION 3: Composition/information on ingredients

### 3.1 Substances

Substance name : 2-Chlorobenzonitrile

Index-No. : 608-013-00-9

#### Components

Chemical name	CAS-No. EC-No.	Concentration (% w/w)
2-chlorobenzonitrile	873-32-5	>= 99

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212-836-5

### 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. Helpers must protect themselves and bring victims out of hazard area. Remove contaminated or saturated clothing.
- If inhaled : Move to fresh air.
- In case of skin contact : Wash off with plenty of water and soap. Following contact with hot product, cool quickly with cold water until pain ceases. Do not remove congealed product from the skin.
- In case of eye contact : Immediately flush eye(s) with plenty of water. Keep eye wide open while rinsing.
- If swallowed : Clean mouth with water and drink afterwards plenty of water. Do NOT induce vomiting.

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

- Symptoms : To the best of our knowledge, experiences about acute systemic health effects in human beings are not available.

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

- Treatment : Symptomatic treatment.

### SECTION 5: Firefighting measures

#### 5.1 Extinguishing media

- Suitable extinguishing media : Water spray, foam, CO<sub>2</sub>, dry powder.

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

- Hazardous combustion products : nitrous gases  
Hydrocyanic acid (HCN)  
hydrogen chloride (HCl)  
Carbon oxides

#### 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.

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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.  
Avoid dust formation.  
Ensure adequate ventilation.

#### 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.  
Melt:  
Allow to solidify, 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 : For professional use only.  
Provide sufficient ventilation and exhaust at the workplace.  
Avoid dust formation.  
Do not allow individual / bulk containers to stand open

Advice on protection against fire and explosion : If dusts develop, explosive dust/air mixtures may form. When handling hot molten mass: Vapours can form explosive mixtures with air. Keep away from heat and sources of ignition.  
Take precautionary measures against static discharges.

Hygiene measures : Do not breathe vapours/dust. Avoid contact with skin, eyes and clothing. Take off clothing and shoes contaminated with product. Clean before reuse. Do not eat, drink or smoke while working. Wash hands, and/or face before breaks and when workday is finished. 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.

Storage class (TRGS 510) : 11, Combustible Solids

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Packaging material : Suitable material: polyethylene, Polypropylene, Steel drum with polyethylene inliner, Melt: stainless steel

### 7.3 Specific end use(s)

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

None known

### 8.2 Exposure controls

#### Personal protective equipment

Eye protection : Safety glasses  
When handling hot molten mass:  
Tightly fitting safety goggles

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

Remarks : When handling hot material, use heat resistant gloves.

Skin and body protection : Protective clothing

Respiratory protection : Do not inhale gases, vapours, aerosols or dust - use respiratory protection equipment.  
Respirator with ABEK-P3 combination filter

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

Appearance : powder  
Colour : yellowish  
Odour : stinging, bitter almond  
pH : 7  
(as aqueous solution)  
Melting point/range : 40 - 43 °C  
Boiling point/boiling range : 232 °C (1.013 hPa)

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Flash point	:	122 °C
Vapour pressure	:	0,06 hPa (20 °C)
Density	:	1,184 g/cm <sup>3</sup> (50 °C)
Solubility(ies)		
Water solubility	:	insoluble (20 °C)
Solubility in other solvents	:	165 g/l (20 °C) Solvent: toluene
		60 g/l (20 °C) Solvent: Ethanol

### 9.2 Other information

no data available

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

See section 10.3

### 10.2 Chemical stability

No decomposition if stored and applied as directed.

### 10.3 Possibility of hazardous reactions

Hazardous reactions : No dangerous reactions known.

### 10.4 Conditions to avoid

Conditions to avoid : When handling hot molten mass:  
Keep away from sources of ignition - No smoking.

### 10.5 Incompatible materials

Materials to avoid : Strong oxidizing agents

### 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

##### Product:

Acute oral toxicity : Assessment: Harmful if swallowed.

# SAFETY DATA SHEET

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Acute dermal toxicity : Assessment: Harmful in contact with skin.

### Components:

#### **2-chlorobenzonitrile:**

Acute oral toxicity : LD50 (rat): 396 mg/kg  
Assessment: Harmful if swallowed.  
Remarks: Own test result.

Acute inhalation toxicity : LC0 (rat): > 0,44 mg/l  
Exposure time: 4 h  
Remarks: the maximum dose attainable under experimental conditions no fatalities  
Own test result.

Acute dermal toxicity : Assessment: Harmful in contact with skin.  
Remarks: Exposure to the substance not as a solid, but e.g. in solution may endanger dermal absorption and toxic effects.

### **Skin corrosion/irritation**

#### Components:

#### **2-chlorobenzonitrile:**

Species : Rabbit  
Method : OECD Guide-line 404  
Result : No skin irritation  
Remarks : Own test result.

### **Serious eye damage/eye irritation**

#### Product:

Assessment : Causes serious eye irritation.

#### Components:

#### **2-chlorobenzonitrile:**

Species : Rabbit  
Assessment : Causes serious eye irritation.  
Method : OECD Guide-line 405  
Result : slightly irritating  
Remarks : Own study, IUCLID

### **Respiratory or skin sensitisation**

#### Components:

#### **2-chlorobenzonitrile:**

Remarks : no data available

# SAFETY DATA SHEET

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### Germ cell mutagenicity

#### Components:

##### 2-chlorobenzonitrile:

Germ cell mutagenicity- Assessment : Not mutagenic in Ames Test

### Carcinogenicity

#### Components:

##### 2-chlorobenzonitrile:

Remarks : No data available

### STOT - single exposure

#### Components:

##### 2-chlorobenzonitrile:

Remarks : no data available

### STOT - repeated exposure

#### Components:

##### 2-chlorobenzonitrile:

Remarks : no data available

### Aspiration toxicity

#### Components:

##### 2-chlorobenzonitrile:

No data available

### Further information

#### Product:

Remarks : No additional toxicological data are available.

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## SECTION 12: Ecological information

### 12.1 Toxicity

#### Product:

##### Ecotoxicology Assessment

Chronic aquatic toxicity : Harmful to aquatic life with long lasting effects.



# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



## NITRALZ® 2-Chlorobenzonitrile

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### Components:

#### **2-chlorobenzonitrile:**

Toxicity to fish : LC50 (Leuciscus idus): 55 mg/l  
Exposure time: 48 h  
Method: DIN 38412  
Remarks: Own test result.

NOEC : 10 mg/l  
Exposure time: 48 h  
Method: DIN 38412  
Remarks: Own test result.

Toxicity to microorganisms : EC10 (Pseudomonas putida): 43 mg/l  
Remarks: Own test result.

### 12.2 Persistence and degradability

#### Components:

#### **2-chlorobenzonitrile:**

Biodegradability : Method: OECD 301  
Remarks: Not readily biodegradable.

### 12.3 Bioaccumulative potential

#### Components:

#### **2-chlorobenzonitrile:**

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

### 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.

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## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

Product : Must be brought to an adequate waste treatment facility, in

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Material no.:

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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.  
When transporting as a molten mass:  
Dangerous good (with special safety data sheet).

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

Not applicable for product as supplied.

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### 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 (<10t).

### 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

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific

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according to Regulation (EC) No. 1907/2006



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Revision Date: 16.03.2020

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material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

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