

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



NITRALZ® 3-Chlorobenzonitrile

Version 3.5 / REG_EU

Revision Date: 27.02.2020

Specification: 131719

Material no.:

Date of first issue: 27.02.2020

Print Date: 28.02.2020

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

1.1 Product identifier

Trade name : NITRALZ® 3-Chlorobenzonitrile
Registration number : 01-2120312245-69-0000
CAS-No. : 766-84-7
EC-No. : 212-172-6

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

Use of the Substance/Mixture : Intermediate product under strictly controlled conditions (as per Article 18 EU Ordinance 1907/2006, REACH), 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 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)

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)

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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 : 3-Chlorobenzonitrile

Components

Chemical name	CAS-No. EC-No.	Concentration (% w/w)
3-Chlorobenzonitrile	766-84-7 212-172-6	>= 99

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SECTION 4: First aid measures

4.1 Description of first aid measures

- General advice : Helpers must protect themselves and bring victims out of hazard area.
Remove contaminated or soaked clothing immediately and dispose of safely.
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 : Upon skin contact, wash with plenty of water and soap.
When handling hot molten mass:
Following contact with hot product, cool quickly with cold water until pain ceases. Do not remove congealed product from the skin.
Call a physician immediately.
- In case of eye contact : Open the eyes and rinse thoroughly with plenty of water.
- If swallowed : Rinse out mouth, spit out liquid.
Give small amounts of water to drink.

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 : Treat symptomatically.

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
Nitrogen oxides (NO_x)
Hydrocyanic acid (HCN)
hydrogen chloride (HCl)

5.3 Advice for firefighters

- Special protective equipment : In the case of fire, wear respiratory protective equipment in-

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for firefighters

dependent of surrounding air and chemical protective suit.

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.
Avoid dust formation.
Melt:
Allow to solidify, use mechanical handling equipment.
Keep in suitable, closed containers for disposal.

6.4 Reference to other sections

|| For disposal considerations see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling : The substance must be handled under strictly controlled conditions in accordance with Article 17/18 of the REACH regulation.
Provide sufficient ventilation and exhaust at the workplace.
Avoid dust formation.
Do not allow containers and vessels 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 container tightly closed in a dry and well-ventilated place.

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Packaging material : Suitable material: polyethylene, Polypropylene, Steel drum with polyethylene inliner, Melt: 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
When handling hot molten mass:
Tightly fitting safety goggles

Hand protection

Material : Nitrile rubber, Recommendation: Camatril 730
Break through time : 10 min
Glove thickness : 0,4 mm
Directive : 4-Chlorobenzonitrile - melt (conclusion by analogy)
Manufacturer : Kächele-Cama Latex GmbH (KCL), Germany

Material : Fluorinated rubber (Viton), Recommendation: Vitoject 890
Break through time : 480 min
Glove thickness : 0,7 mm
Directive : 4-Chlorobenzonitrile - melt (conclusion by analogy)
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 : light yellow, white
Odour : bitter almond, stinging
pH : neutral

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Melting point/range	:	38 - 40 °C
Boiling point/boiling range	:	94 °C (14 hPa)
Flash point	:	97 °C
Flammability (solid, gas)	:	not highly flammable
Upper explosion limit / upper flammability limit	:	no data available
Lower explosion limit / Lower flammability limit	:	no data available
Density	:	1,14 g/cm ³ (20 °C)
Solubility(ies) Water solubility	:	insoluble (20 °C)
Partition coefficient: n-octanol/water	:	log Pow: 2,18 Method: calculated
Decomposition temperature	:	No data available

9.2 Other information

Molecular weight : 137,57 g/mol

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 hazardous reactions are known if properly handled and stored.

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

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SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Product:

- Acute oral toxicity : Assessment: Harmful if swallowed.
Acute dermal toxicity : Assessment: Harmful in contact with skin.

Components:

3-Chlorobenzonitrile:

- Acute oral toxicity : LD50 (Mouse): 800 mg/kg
Assessment: Harmful if swallowed.
Remarks: literature
- Acute inhalation toxicity : Assessment: Based on available data, the classification criteria are not met.
Remarks: The data are derived from the evaluations or test results achieved with similar products (conclusion by analogy).
- Acute dermal toxicity : Assessment: Harmful in contact with skin.
Remarks: Hazardous by absorption through the skin.
The data are derived from the evaluations or test results achieved with similar products (conclusion by analogy).

Skin corrosion/irritation

Components:

3-Chlorobenzonitrile:

- Species : Rabbit
Result : No skin irritation
Remarks : literature

Serious eye damage/eye irritation

Product:

- Assessment : Causes serious eye irritation.

Components:

3-Chlorobenzonitrile:

- Species : Rabbit
Result : Eye irritation
Remarks : literature

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Respiratory or skin sensitisation

Components:

3-Chlorobenzonitrile:

Remarks : no data available

Germ cell mutagenicity

Components:

3-Chlorobenzonitrile:

Germ cell mutagenicity- Assessment : no data available

Carcinogenicity

Components:

3-Chlorobenzonitrile:

Carcinogenicity - Assessment : no data available

Reproductive toxicity

Components:

3-Chlorobenzonitrile:

Reproductive toxicity - Assessment : no data available

STOT - single exposure

Components:

3-Chlorobenzonitrile:

Remarks : no data available

STOT - repeated exposure

Components:

3-Chlorobenzonitrile:

Remarks : no data available

Aspiration toxicity

Components:

3-Chlorobenzonitrile:

No data available

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Further information

Product:

Remarks : No additional toxicological data are available.

SECTION 12: Ecological information

12.1 Toxicity

Product:

Ecotoxicology Assessment

Chronic aquatic toxicity : Harmful to aquatic life with long lasting effects.
Remarks: The data are derived from the evaluations or test results achieved with similar products (conclusion by analogy).

Components:

3-Chlorobenzonitrile:

Toxicity to fish : LC50 (estimation) : 10 - 100 mg/l
Remarks: The data are derived from the evaluations or test results achieved with similar products (conclusion by analogy).

12.2 Persistence and degradability

Components:

3-Chlorobenzonitrile:

Biodegradability : Remarks: Expected to be not readily biodegradable.
The data are derived from the evaluations or test results achieved with similar products (conclusion by analogy).

12.3 Bioaccumulative potential

Product:

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

Components:

3-Chlorobenzonitrile:

Partition coefficient: n-octanol/water : log Pow: 2,18
Method: QSAR-Method
Remarks: (calculated)

12.4 Mobility in soil

no data available

12.5 Results of PBT and vPvB assessment

Product:

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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 ecotoxicological studies with the product available. Prevent uncontrolled release in the environment.

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.

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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.

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

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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 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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