

Otto Chemie Pvt Ltd

An ISO 9001 : 2015 & GMP Certified Company
Office : No 603, 6th Floor, Tardeo AC Market, 87, Tardeo Road,
Tardeo, Mumbai, Maharashtra 400034, India (BHARAT)
Tel : + 91 98200 41841 Email : info@ottokemi.com Web : www.ottokemi.com

Creation Date: 20-08-2026

Revision Date: 18-07-2021

MATERIAL SAFETY DATA SHEET (MSDS)

SECTION 1: Product identifiers

Product Name: 2-Chlorobenzonitrile, 98%
Product Code: C 7082
CAS No: 873-32-5

1.2. Relevant identified uses of the substance or mixture and uses advised against
Use : Industrial. For professional use only.

1.3. Details of the supplier of the safety data sheet
Company identification
OTTO CHEMIE PVT LTD
No 603, 6th Floor, Tardeo AC Market, 87, Tardeo Road,
Tardeo, Mumbai, Maharashtra 400034, India (BHARAT)

1.4. Emergency telephone number
Phone no. : + 91 98200 41841 (10 : 00 am – 06 : 00 pm)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture
Classification (REGULATION (EC) No 1272/2008)
Acute toxicity, Category 4
Acute toxicity, Category 3
Eye irritation, Category 2
Long-term (chronic) aquatic hazard,
Category 3 lasting effects.

2.2 Label elements
Labelling (REGULATION (EC) No 1272/2008)
Hazard pictograms
Signal word
Hazard statements

Precautionary
statements

Reduced Labelling (<= 125 ml)
Hazard pictograms
Signal word
Hazard Statements
H311
H412

H302: Harmful if swallowed.
H311: Toxic in contact with skin.
H319: Causes serious eye irritation.
H412: Harmful to aquatic life with long

:
: Danger
: H302 Harmful if swallowed.
: H311 Toxic in contact with skin.
: H319 Causes serious eye irritation.
: H412 Harmful to aquatic life with long lasting
effects.

Prevention:
P264 Wash skin thoroughly after handling.
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 + P312 IF ON SKIN: Wash with plenty of
water. Call a POISON CENTER/ doctor if you
feel unwell.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with
water for several minutes. Remove contact
lenses, if present and easy to do. Continue rinsing.

:
: Danger

Toxic in contact with skin.
Harmful to aquatic life with long lasting effects.

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Precautionary Statements
P302 + P352 + P312

IF ON SKIN: Wash with plenty of water. Call a POISON CENTER/
doctor if you feel unwell.
none

Supplemental Hazard
Statements

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.

Ecological information: 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.

Toxicological information: 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.

SECTION 3: Composition/information on ingredients

3.1 Substances

EC-No. : 212-836-5

Components

Chemical name	CAS-No. EC-No.	Concentration (%) w/w)	M-Factor, SCL, ATE
2-chlorobenzonitrile	873-32-5 212-836-5	>= 90 - <= 100	

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice : First aiders need to protect themselves.

Show this 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.

Call a physician immediately.

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 GHS label elements) and/or in section 11

4.3 Indication of any immediate medical attention and special treatment needed

No data available

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

Water

Foam

Carbon dioxide (CO2)

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

Specific hazards during

fire fighting

Combustible.

Vapours are heavier than air and may spread along floors.

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Forms explosive mixtures with air on intense heating.
Development of hazardous combustion gases or vapours possible in the event of fire.
Hazardous combustion products
Carbon oxides
Nitrogen oxides (NOx)
Hydrogen chloride gas
5.3 Advice for firefighters
Special protective equipment 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.
Further information : Suppress (knock down) gases/vapours/mists with a water spray jet.
Prevent fire extinguishing water from contaminating surface water or the ground water system.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
Personal precautions : Advice for non-emergency personnel:
Avoid generation and inhalation of dusts in all circumstances.
Avoid substance contact.
Ensure adequate ventilation.
Evacuate the danger area, observe emergency procedures, consult an expert.
Wear appropriate personal protective equipment, as indicated in Section 8.
6.2 Environmental precautions
Environmental precautions
Do not let product enter drains.
6.3 Methods and material for containment and cleaning up
Methods for cleaning up : Cover drains. Collect, bind, and pump off spills.
Observe possible material restrictions (see sections 7 and 10).
Take up carefully. Dispose of properly. Clean up affected area.
Avoid generation of dusts.
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 : Work under hood. Do not inhale substance/mixture.
Hygiene measures : Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance.
For precautions see section 2 GHS label elements
7.2 Conditions for safe storage, including any incompatibilities
Further information on storage conditions
Tightly closed. Dry. Keep in a well-ventilated place.
Keep locked up or in an area accessible only to qualified or authorised persons.
Storage class (TRGS 510) : 6.1C, Combustible, acute toxic Cat.3 / toxic compounds or compounds which causing chronic effects
Recommended storage temperature
Recommended storage temperature see product label.
7.3 Specific end use(s)
Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

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SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational Exposure Limits

8.2 Exposure controls

Individual protection measures, such as personal protective equipment (PPE)

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

Hand protection

Material : Nitrile rubber

Break through time : 480 min

Glove thickness : 0,11 mm

Protective index : Full contact

Manufacturer : KCL 741 Dermatril® L

Material : Nitrile rubber

Break through time : 480 min

Glove thickness : 0,11 mm

Protective index : Splash contact

Manufacturer : KCL 741 Dermatril® L

Remarks : 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 EN 16523-1 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D36124 Eichenzell, Internet: www.kcl.de).

Skin and body protection : protective clothing

Respiratory protection : required when dusts are generated.

Our recommendations on filtering respiratory protection are based on the following standards: DIN EN 143, DIN 14387 and other accompanying standards relating to the used respiratory protection system.

Recommended Filter type: Filter type P3

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.

Environmental exposure controls

Advice : Do not let product enter drains.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state	: Powder or crystals
Form	: crystalline
Colour	: beige
Odour	: No data available
Melting point/ range	: 43 - 46 °C Method: lit.
Boiling point/boiling range	: 232 °C Method: lit.
Flammability	: Method: Flammability (solids) Remarks: The product is not flammable.
Upper explosion limit / Upper flammability limit	: No data available
Lower explosion limit / Lower flammability limit	: No data available
Flash point	: 108 °C Method: closed cup
Autoignition temperature	: No data available
Decomposition temperature	: No data available
pH	: ca. 7
Viscosity, dynamic	: No data available

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Viscosity, kinematic	: No data available
Flow time	: No data available
Water solubility	: No data available
Partition coefficient: noctanol/water	: log Pow: 2,2 (20 °C) Method: OECD Test Guideline 107 GLP: yes Bioaccumulation is not expected.
Vapour pressure	: 0,06 hPa (20 °C)
Relative density	: No data available
Density	: ca. 1,19 g/cm ³ (25 °C)
Relative vapour density	: No data available
9.2 Other information	
Explosives	: No data available
Oxidizing properties	: none
Burning rate	: No data available
Self-ignition	: > 36 °C Method: Relative self-ignition temperature for solids does not ignite
Evaporation rate	: No data available
Molecular weight	: 137,57 g/mol

SECTION 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.

The following applies in general to flammable organic substances and mixtures: in correspondingly fine distribution, when whirled up a dust explosion potential may generally be assumed.

10.2 Chemical stability

The product is chemically stable under standard ambient conditions (room temperature) .

10.3 Possibility of hazardous reactions

Hazardous reactions : Violent reactions possible with:

Strong oxidizing agents

Strong acids

strong alkalis

strong reducing agents

10.4 Conditions to avoid

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

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Routes of Entry: Absorbed through skin. Dermal contact. Eye contact. Toxicity to Animals:

Oral LD50 Rat: 1500 mg/kg; Dermal LD50 Rabbit: 2000mg/kg Inhalation LC50 Rat: > 50mg/L.

Chronic Effects on Humans: CARCINOGENIC EFFECTS: Classified None. by NTP, None. by OSHA, None. by NIOSH.

Other Toxic Effects on Humans: Hazardous in case of skin contact (irritant), of inhalation (lung irritant).

Special Remarks on Toxicity to Animals: Not available.

Special Remarks on Chronic Effects on Humans: Not available.

Special Remarks on other Toxic Effects on Humans: Not available.

SECTION 12: Ecological information

12.1 Toxicity

Components:

2-chlorobenzonitrile:

Toxicity to fish : LC50 (Danio rerio (zebra fish)): 58,7 mg/l Exposure time: 96 h

Remarks: (Hommel)

Toxicity to algae/aquatic plants

EC50 (Chlorella vulgaris (Fresh water algae)): 43 mg/l Exposure time: 6 h

Test Type: static test

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Method: OECD Test Guideline 201

Toxicity to microorganisms

EC50 (activated sludge): ca. 377 mg/l

Remarks: (Hommel)

12.2 Persistence and degradability

Components:

2-chlorobenzonitrile:

Biodegradability : Test Type: aerobic

Inoculum: activated sludge, non-adapted

Concentration: 21 mg/l

Result: Not readily biodegradable.

Biodegradation: 1,2 %

Exposure time: 28 d

Method: OECD Test Guideline 301B GLP: yes

12.3 Bioaccumulative potential

Components:

2-chlorobenzonitrile:

Partition coefficient: noctanol/water log Pow: 2,2 (20 °C) pH: 5,96 - 6,28

Method: OECD Test Guideline 107 GLP: yes

Remarks: Bioaccumulation is not expected.

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

Product:

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

Components:

2-chlorobenzonitrile:

Additional ecological information

Discharge into the environment must be avoided.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product : Waste material must be disposed of in accordance with the national and local regulations. Leave chemicals in original containers. No mixing with other waste. Handle uncleaned containers like the product itself.

SECTION 14: Transport information

14.1 UN number or ID number

ADR

: UN 3439

IMDG

: UN 3439

IATA

: UN 3439

14.2 UN proper shipping name

ADR

: NITRILES, SOLID, TOXIC, N.O.S.
(2-chlorobenzonitrile)

IMDG

: NITRILES, SOLID, TOXIC, N.O.S.
(2-chlorobenzonitrile)

IATA

: Nitriles, solid, toxic, n.o.s.
(2-chlorobenzonitrile)

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14.3 Transport hazard class(es)

	Class	Subsidiary risks
ADR	: 6.1	
IMDG	: 6.1	
IATA	: 6.1	

14.4 Packing group

ADR		
Packing group	: III	
Classification Code	: T2	
Hazard Identification Number	: 60	
Labels	: 6.1	
Tunnel restriction code	: (E)	
IMDG		
Packing group	: III	
Labels	: 6.1	
EmS Code	: F-A, S-A	
IATA (Cargo)		
Packing instruction (cargo aircraft)	: 677	
Packing instruction (LQ)	: Y645	
Packing group	: III	
Labels	: Division 6.1 - Toxic substances	
IATA_P (Passenger)		
Packing instruction (passenger aircraft)	: 670	
Packing instruction (LQ)	: Y645	
Packing group	: III	
Labels	: Division 6.1 - Toxic substances	

14.5 Environmental hazards

ADR	
Environmentally hazardous	: no
IMDG	
Marine pollutant	: no

14.6 Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

14.7 Maritime transport in bulk according to IMO instruments

Not applicable for product as supplied.

SECTION 15: Regulatory information

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

REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles (Annex XVII)
Conditions of restriction for the following entries should be considered:

Number on list 3: 2-

chlorobenzonitrile

Number on list 75

If you intend to use this product as tattoo ink, please contact your vendor.

REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59).

Not applicable

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Regulation (EU) No 2024/590 on substances that
deplete the ozone layer

Not applicable

Regulation (EU) 2019/1021 on persistent organic
pollutants (recast)

Not applicable

REACH - List of substances subject to
authorisation (Annex XIV)

Not applicable

Seveso III: Directive 2012/18/EU of the
European Parliament and of the Council
on the control of major-accident hazards
involving dangerous substances.

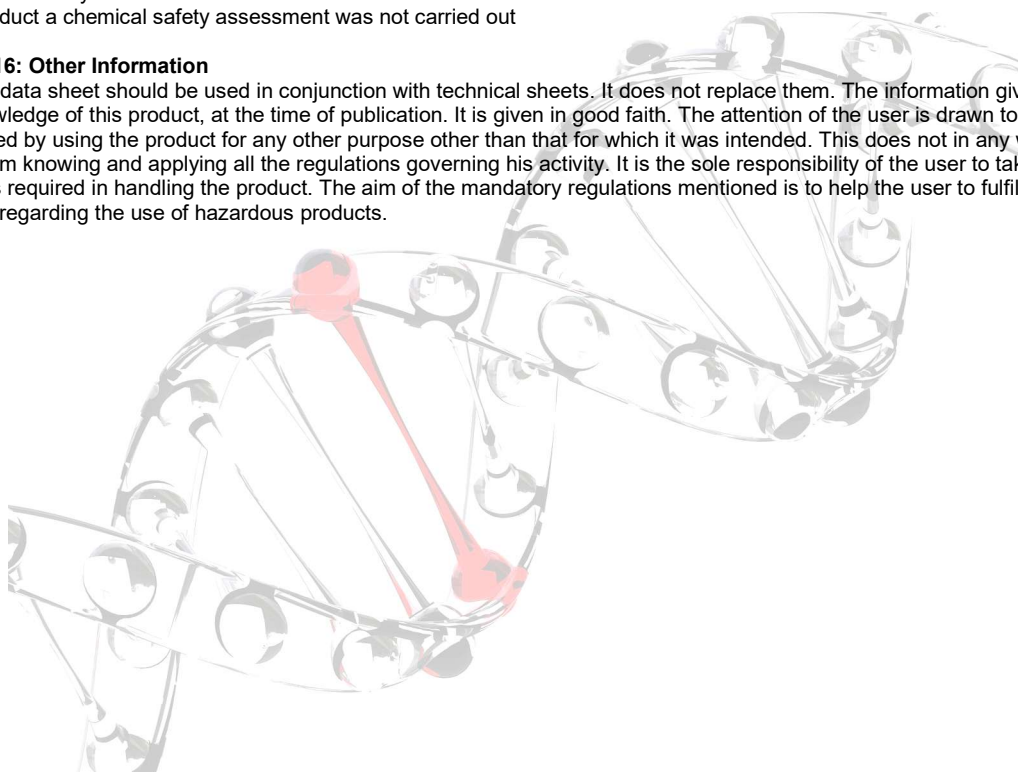
Not applicable

15.2 Chemical safety assessment

For this product a chemical safety assessment was not carried out

SECTION 16: Other Information

This safety data sheet should be used in conjunction with technical sheets. It does not replace them. The information given is based on our knowledge of this product, at the time of publication. It is given in good faith. The attention of the user is drawn to the possible risks incurred by using the product for any other purpose other than that for which it was intended. This does not in any way excuse the user from knowing and applying all the regulations governing his activity. It is the sole responsibility of the user to take all precautions required in handling the product. The aim of the mandatory regulations mentioned is to help the user to fulfill his obligations regarding the use of hazardous products.



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