

1: Identification of substance / mixture

1. Product Identifier

Substance

Product Name **1,2-Dichloro-3-nitrobenzene**
 Product Code 52437
 CAS Number 3209-22-1
 Other Names
 IUPAC
 MFCD Number MFCD00007062
 EC/EINECS 221-717-7
 REACH Number



2. Relevant identified uses of the substance or mixture and uses advised against

Research and Development

3. Details of the supplier of the safety data sheet

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4. Emergency telephone number

+49-8823-917521

2. Hazards Identification

1. Classification of the substance or mixture

EUH401		
H302	Acute Tox. 4	R22, R20/22, R20/21/22, R21/22, R68/20/22, R68/21/22, R68/20/21/22
H311	Acute Tox. 3	R24, R23/24, R23/24/25, R24/25
H315	Skin Irrit. 2	R38, R36/38, R36/37/38, R37/38
H370	STOT SE 1	R39/23, R39/24, R39/25, R39/23/24, R39/23/25, R39/24/25, R39/23/24/25, R39/26, R39/27, R39/28, R39/26/27, R39/26/28, R39/27/28, R39/26/27/28
H373	STOT RE 2	R33, R48/20, R48/21, R48/22, R48/20/21, R48/20/22, R48/21/22, R48/20/21/22
H411	Aquatic Chronic 2	R51/53

No Resource File

2. Label elements

Signal Word **Danger**



Hazard Statements

EUH401	To avoid risks to human health and the environment, comply with the instructions for use.
H302	Harmful if swallowed.
H311	Toxic in contact with skin.
H315	Causes skin irritation.
H370	Causes damage to organs Nervous system.
H373	May cause damage to organs Liver, Blood, Kidney.
H411	Toxic to aquatic life with long lasting effects.

Precautionary Phrases

P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P270	Do not eat, drink or smoke when using this product.
P273	Avoid release to the environment.

P280	Wear protective gloves/protective clothing/eye protection/face protection.
P301 + P312	IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
P302 + P352	IF ON SKIN: Wash with plenty of soap and water.
P307 + P311	IF exposed: Call a POISON CENTER or doctor/physician.
P361	Remove/Take off immediately all contaminated clothing.
P391	Collect spillage.
P405	Store locked up.

3. Other Hazards

Additional precautionary phrases are located throughout the safety data sheet

3. Composition / Information on Ingredients

1. Substances

1,2-Dichloro-3-nitrobenzene

Assay:100% CAS Number :3209-22-1

2. Mixtures

Not Relevant

4. First Aid Measures

1. Description of first aid measures

<i>Skin Contact</i>	P302 + P352: IF ON SKIN: Wash with plenty of soap and water. Wash immediately with plenty of soap and water. Transfer to hospital if there are burns or symptoms of poisoning.
<i>Eye Contact</i>	Rinse opened eye for several minutes under running water. Transfer to hospital for specialist examination.
<i>Ingestion</i>	P301 + P312: IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. Wash out mouth with water. Transfer to hospital as soon as possible.
<i>Inhalation</i>	Remove casualty from exposure ensuring one's own safety whilst doing so. Transfer to hospital as soon as possible.

2. Most important symptoms and effects

P307 + P311: IF exposed: Call a POISON CENTER or doctor/physician.
There may be pain and redness.
May cause permanent damage.
There may be difficulty swallowing.

3. Indication of any immediate medical attention

P312: Call a POISON CENTER or doctor/physician if you feel unwell.
No additional measures required

5. Firefighting measures

1. Extinguishing Media

<i>Suitable</i>	Carbon dioxide. Alcohol resistant foam. Dry chemical powder.
<i>Unsuitable</i>	no data

2. Special Hazards arising from the substance or mixture

In combustion toxic fumes may form.

3. Advice for Fire Fighters

Wear self-contained breathing apparatus.
Wear protective clothing to prevent contact with skin and eyes.

6. Accidental Release Measures

1. Personal Precautions

Evacuate the area immediately.
Do not attempt to take action without suitable protective clothing – see section 8 of SDS.

2. Environmental Precautions

Do not discharge into drains or rivers.
Contain the spillage using bunding.
Alert the neighbourhood to the presence of fumes or gas.

3. Methods & Materials

P391: Collect spillage.
Mix with sand or vermiculite.
Transfer to a closable, labelled salvage container for disposal by an appropriate method.

4. Preventing the occurrence of secondary hazards.

No Special Measures Required

7. Handling and Storage

1. Personal Precautions

Safe Handling Ensure there is sufficient ventilation of the area.
P270: Do not eat, drink or smoke when using this product.
P273: Avoid release to the environment.

Protection against explosions and fires P361: Remove/Take off immediately all contaminated clothing.
P363: Wash contaminated clothing before reuse.

2. Conditions for safe storage, including any incompatibilities

Managing Storage Risks Store in cool, well ventilated area.
Keep container tightly closed.

Storage Controls No special requirements

Maintaining Integrity Store away from oxidising agents
Keep in tightly closed container in cool area away from direct sunlight or heat sources.

Other advice P405: Store locked up.

3. Specific End Uses

The end use(s) have not been fully determined. The substance is supplied for Research and Development purposes by professionals only.

8. Exposure Controls/Personal Protection

1. Control Parameters

No Data Available

2. Exposure Controls

<i>General protective and hygiene measures</i>	P280: Wear protective gloves/protective clothing/eye protection/face protection. Wash hands during breaks and at the end of handling the material Immediately remove any contaminated clothing
<i>Engineering measures</i>	Ensure there is sufficient ventilation of the area.
<i>Eye / Face Protection</i>	Safety Glasses with side-shields.
<i>Hand protection</i>	Protective gloves.
<i>Respiratory protection</i>	P260: Do not breathe dust/fume/gas/mist/vapours/spray. Self-contained breathing apparatus must be available in case of emergency.
<i>Skin protection</i>	Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practice. Wash and dry hands. Protective clothing.
<i>Other personal protection advice</i>	no data

9. Physical and Chemical Properties

1. Physical and Chemical Properties

Appearance	Very pale yellow or pale yellow green powder
Odour	No Data Available
Odour threshold	No Data Available
PH	No Data Available
Melting point / Freezing point	62°C
Initial boiling point and boiling range	257°C
Flash point	No Data Available
Evaporation rate	No Data Available
Flammability(solid,gas)	No Data Available
Upper/lower flammability or explosive limits	No Data Available
Vapour pressure	0.22Pa/25°C
Vapour density	6.6
Relative density	No Data Available
Solubility(ies):	Ether, Acetone, Ethanol. Insoluble in water (62.4m
Partition coefficient: n-octanol/water	3.05
Auto-ignition temperature	479°C
Decomposition temperature	No Data Available
Viscosity	No Data Available
Explosive properties	No Data Available
Oxidising properties	No Data Available

2. Other Information

No additional information available

10. Stability and Reactivity

1. Reactivity

no unusual reactivity

2. Stability

Stable under normal conditions.

3. Possibility of Hazardous Reactions

no hazardous reactions known

4. Conditions to Avoid

no specific conditions to avoid

5. Incompatible Materials

Oxidising agents.
Strong bases.
Aluminium.
Zinc.
Iron.

6. Hazardous Decomposition Products

In combustion emits toxic fumes.
In combustion emits toxic fumes of carbon dioxide / carbon monoxide.
In combustion emits toxic fumes of nitrogen oxides.
In combustion emits toxic fumes of hydrogen chloride / phosgene.

11. Toxicology information

1. Information

<i>Acute Toxicity</i>	no data
<i>Skin corrosion/irritation</i>	irritant for skin and mucous membranes
<i>Serious eye Damage/irritation</i>	irritant effect
<i>Respiratory or skin sensitisation</i>	No sensitizing effect known
<i>Germ Cell mutagenicity</i>	mmo-sat 3333 ug/plate (-S9)
<i>Carcinogenicity</i>	not known
<i>Reproductive toxicity</i>	not known
<i>STOT-single exposure</i>	not known
<i>STOT-repeated exposure</i>	not known
<i>Aspiration hazard</i>	not known

2. Additional

To the best of our knowledge the acute and chronic toxicity of this substance is not fully known.
No classification data on carcinogenic properties of this material is available from the EPA, IARC, NTP, OSHA or ACGIH

12. Ecological Information

1. Toxicity

not known

2. Persistence and degradability

4% (by BOD), 5% (by HPLC)

3. Bio-Accumulative Potential

43 - 75 (conc. 0.1 mg/L), 45 - 83 (conc. 0.01 mg/L)

4. Mobility and Soil

3.05

5. Results of PBT & vPvB assessment

not known

6. Other adverse effects

Do not allow product to reach ground water, water bodies or sewage system, even in small quantities.
Class 3 - Severe hazard to waters

13. Disposal Considerations


1. Waste Treatment Methods

Disposal Operations


Disposal of Packaging Disposal must be made according to official regulations.

14. Transport Information


Air (ICAO)

1. **UN Number:** 2811
 2. **Shipping Name:** Toxic solid, organic, n.o.s. (1,2-Dichloro-3-nitrobenzene)
 3. **Transport hazard class(es):** : 6.1 Sub Class :
- 
4. **Packing group:** III
 5. **Environmental hazards:**
 6. **Special Precautions for user:**
 7. **Transport in bulk:**

Road (ADR)

1. **UN Number:** 2811
 2. **Shipping Name:** TOXIC SOLID, ORGANIC, N.O.S.
 3. **Transport hazard class(es):** : 6.1 Sub Class :
- 
4. **Packing group:** III
 5. **Environmental hazards:**
 6. **Special Precautions for user:** For the purposes of documentation and package marking, the Proper Shipping Name shall be supplemented with the technical name (see 3.1.2.8.1).
 7. **Transport in bulk:**

Sea (IMDG)

1. **UN Number:** 2811
 2. **Shipping Name:** Toxic solid, organic, n.o.s. (1,2-Dichloro-3-nitrobenzene)
 3. **Transport hazard class(es):** : 6.1 Sub Class :
- 
4. **Packing group:** III
 5. **Environmental hazards:**
 6. **Special Precautions for user:** If the chemical or physical properties of a substance covered by this description are such that, when tested, it does not meet the established defining criteria for the class or division listed in column 3, or any other class or division, it is not subject to the provisions of this Code except in the case of a marine pollutant where 2.10.3 applies.
 7. **Transport in bulk:** IBCINS: IBC08
IBCPPROV: B3
UNTANKINS: T1
TANKPROV: TP33

15. Safety, health, environmental and national regulations

1. Safety, health, environmental and national regulations:

product is not subject to any additional regulations or provisions

2. Safety Assessment

No Chemical Safety Assessment

16. Other Information

1. Other Information:

ADR: Accord Europeen sur le transport des marchandises Dangereuses par Route(European Agreement concerning the International Carriage of Dangerous Goods by road)
RID:Reglement International concernant le transport des marchandises dangereuses par chemin de fer (Regulations concerning the International transport of Dangerous Goods by Rail)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
IATA-DGR: Dangerous Goods Regulations by the International Air Transport Association
ICAO:International Civil Aviation Organization
ICAO-TI: Technical Instructions by the ICAO
GHS: Globally Harmonized System of Classification and Labelling of Chemicals
CAS:Chemical Abstracts Service

2. Associated risk phrases according to european directive 67/548/EEC

R20/21/22	Harmful by inhalation, in contact with skin and if swallowed.
R20/22	Harmful by inhalation and if swallowed.
R21/22	Harmful in contact with skin and if swallowed.
R22	Harmful if swallowed.
R23/24	Toxic by inhalation and in contact with skin.
R23/24/25	Toxic by inhalation, in contact with skin and if swallowed.
R24	Toxic in contact with skin.
R24/25	Toxic in contact with skin and if swallowed.
R33	Danger of cumulative effects.
R36/37/38	Irritating to eyes, respiratory system and skin.
R36/38	Irritating to eyes and skin.
R37/38	Irritating to respiratory system and skin.
R38	Irritating to skin.
R39/23	Toxic: danger of very serious irreversible effects through inhalation.
R39/23/24	Toxic: danger of very serious irreversible effects through inhalation and in contact with skin.
R39/23/24/25	Toxic: danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed.
R39/23/25	Toxic: danger of very serious irreversible effects through inhalation and if swallowed.
R39/24	Toxic: danger of very serious irreversible effects in contact with skin.
R39/24/25	Toxic: danger of very serious irreversible effects in contact with skin and if swallowed.
R39/25	Toxic: danger of very serious irreversible effects if swallowed.
R39/26	Very toxic: danger of very serious irreversible effects through inhalation.
R39/26/27	Very toxic: danger of very serious irreversible effects through inhalation and in contact with skin.
R39/26/27/28	Very toxic: danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed.
R39/26/28	Very toxic: danger of very serious irreversible effects through inhalation and if swallowed.
R39/27	Very toxic: danger of very serious irreversible effects in contact with skin.
R39/27/28	Very toxic: danger of very serious irreversible effects in contact with skin and if swallowed.
R39/28	Very toxic: danger of very serious irreversible effects if swallowed.
R48/20	Harmful: danger of serious damage to health by prolonged exposure through inhalation.
R48/20/21	Harmful: danger of serious damage to health by prolonged exposure through inhalation and in contact with skin.
R48/20/21/22	Harmful: danger of serious damage to health by prolonged exposure through inhalation, in contact with skin and if swallowed.
R48/20/22	Harmful: danger of serious damage to health by prolonged exposure through inhalation and if swallowed.
R48/21	Harmful: danger of serious damage to health by prolonged exposure in contact with skin.
R48/21/22	Harmful: danger of serious damage to health by prolonged exposure in contact with skin and if swallowed.
R48/22	Harmful: danger of serious damage to health by prolonged exposure if swallowed.
R51/53	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R68/20/21/22	Harmful: possible risk of irreversible effects through inhalation, in contact with skin and if swallowed.
R68/20/22	Harmful: possible risk of irreversible effects through inhalation and if swallowed.
R68/21/22	Harmful: possible risk of irreversible effects in contact with skin and if swallowed.



3. Disclaimer

The product listed is for research and development purposes only and not for human or animal use. As such, in most cases, the toxicological, ecological and physicochemical properties have not been fully determined and the product should be treated with respect and always handled under suitable conditions by appropriately qualified personnel. The responsible party shall use this datasheet only in conjunction with other sources of information gathered by them, and should make an independent judgement of suitability, to ensure proper use and protect the health and safety of employees. This information is furnished without warranty and any use of the product not in conformance with this material safety data sheet, or in combination with any other product or process, is the responsibility of the user.