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MATERIAL SAFETY DATA SHEET (MSDS)

2,3-DICHLORO-5,6-DICYANO-P-BENZOQUINONE (FOR SYNTHESIS) (DDQ)

1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Trade name : 2,3-DICHLORO-5,6-DICYANO-P-BENZOQUINONE (FOR SYNTHESIS) (DDQ)
Product code : D0083700500
Identification of the product : 2,3-Dichloro-5,6-dicyano-p-benzoquinone
CAS No :84-58-2
EC No :201-542-2

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 : SUVCHEM
Chaitanya Tower, 2nd Floor, Office # 206,
Siddharth Nagar, S.V. Road,
Goregaon (West), Mumbai - 400062,
Maharashtra, India.
Contact: +91 22 28725393 / 94 / 95
Email ID: info@suvchem.com/care@suvchem.com

1.4. Emergency telephone number

Phone no. : + 91 22 28725393 / 94 / 95 (9:00am - 6:00 pm) [Office hours]

2. Hazards identification -DSD

2.1. Classification of the substance or mixture

Classification EC 67/548 or EC 1999/45

Classification : T; R25
R29

Hazard Class and Category Code(s), Regulation (EC) No 1272/2008 (CLP)

Health hazards : Acute toxicity, Oral - Category 3 - Danger (CLP : Acute Tox. 3) H301

2.2. Label elements

Labelling EC 67/548 or EC 1999/45

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2. Hazards identification -DSD (continued)

Symbol(s)



Symbol(s)

: T : Toxic

R Phrase(s)

 : R25 : Toxic if swallowed.
 R29 : Contact with water liberates toxic gas.

S Phrase(s)

 : S22 : Do not breathe dust.
 S24/25 : Avoid contact with skin and eyes.
 S37 : Wear suitable gloves.
 S45 : In case of accident or if you feel unwell, seek medical advice immediately (show the label when possible).

Contains

: 2,3-Dichloro-5,6-dicyano-p-benzoquinone

Labelling Regulation EC 1272/2008 (CLP)

Hazard pictograms



Signal words

: Danger

Hazard statements

: H301 : Toxic if swallowed.

Precautionary statements

• Prevention

 : P264: Wash thoroughly after handling.
 P270: Do not eat, drink or smoke when using this product.

• Response

: P301+P310: IF SWALLOWED : Immediately call a POISON CENTER or doctor.

• Storage

: P405: Store locked up.

• Disposal considerations

: P501: Dispose of this material and its container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

Contains

: 2,3-Dichloro-5,6-dicyano-p-benzoquinone

2.3. Other hazards

Other hazards

: The substance does not fulfil the criteria to be identified as PBT substance or vPvB substance according to Annex XIII of Regulation REACH.

3. Composition/information on ingredients

Substance / Preparation

 : 2,3-Dichloro-5,6-dicyano-p-benzoquinone
 CAS No :84-58-2
 EC No :201-542-2
 Substance.

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3. Composition/information on ingredients (continued)

Substance name	Contents	CAS No	EC No	Annex No	REACH Ref.	Classification
2,3-Dichloro-5,6-dicyano-p-benzoquinone	:	84-58-2	201-542-2	----	----	T, R25 R29 ----- Acute Tox. 3 (oral) _ H301 Acute Tox. _ EUH029

Contains no other components or impurities which will influence the classification of the product.

4. First aid measures
4.1. Description of first aid measures

Inhalation	: Assure fresh air breathing. Allow the victim to rest.
Skin contact	: Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse.
Eye contact	: Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persist.
Ingestion	: Immediately call a POISON CENTER or doctor. Rinse mouth. Do NOT induce vomiting. Specific treatment (see on this label).

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

Symptoms relating to use : Swallowing a small quantity of this material will result in serious health hazard.

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

General information : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

5. Fire-fighting measures
5.1. Extinguishing media

Suitable extinguishing media	: Foam. Dry powder. Carbon dioxide. Water spray. Sand.
Unsuitable extinguishing media	: Do not use a heavy water stream.
Surrounding fires	: Use water spray or fog for cooling exposed containers.

5.2. Special hazards arising from the substance or mixture

Hazardous combustion products : Under fire conditions, hazardous fumes will be present.

5.3. Advice for fire-fighters

Protection against fire : Do not enter fire area without proper protective equipment, including respiratory protection.

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5. Fire-fighting measures (continued)

Special procedures : Exercise caution when fighting any chemical fire. Avoid (reject) fire-fighting water to enter environment.

6. Accidental release measures
6.1. Personal precautions, protective equipment and emergency procedures

For emergency responders : Equip cleanup crew with proper protection. Ventilate area.

For non-emergency personnel : Evacuate unnecessary personnel.

6.2. Environmental precautions

Environmental precautions : Prevent entry to sewers and public waters. Notify authorities if product enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

Clean up methods : On land, sweep or shovel into suitable containers. Minimize generation of dust. Store away from other materials.

6.4. Reference to other sections

See section 8. Exposure controls/personal protection

7. Handling and storage
7.1. Precautions for safe handling

Handling : Wash thoroughly after handling. Do not eat, drink or smoke when using this product.

Technical protective measures : Provide good ventilation in process area to prevent formation of vapour.

7.2. Conditions for safe storage, including any incompatibilities

Storage : Keep only in the original container in a cool, well ventilated place. Keep container closed when not in use.

Storage - away from : Strong bases. Strong acids. Sources of ignition. Direct sunlight.

7.3. Specific end use(s)

Specific end use(s) : None.

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8. Exposure controls/personal protection
8.1. Exposure controls

Personal protection	: Avoid all unnecessary exposure.
• Respiratory protection	: Wear approved mask.
• Hand protection	: Wear protective gloves.
• Eye protection	: Chemical goggles or safety glasses.
• Others	: When using, do not eat, drink or smoke.

8.2. Control parameters

Occupational Exposure Limits	: No data available.
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9. Physical and chemical properties
9.1. Information on basic physical and chemical properties

Physical state at 20 °C	: Crystalline
Colour	: Dark yellow
Odour	: Characteristic.
Odour threshold	: No data available.
pH value	: Not applicable.
Melting point [°C]	: 210-215 °C
Decomposition point [°C]	: No data available.
Critical temperature [°C]	: Not applicable.
Auto-ignition temperature [°C]	: No data available.
Flammability (solid, gas)	: No data available.
Flash point [°C]	: Not applicable.
Initial boiling point [°C]	: Not applicable.
Final boiling point [°C]	: Not applicable.
Evaporation rate	: Not applicable.
Vapour pressure [20°C]	: No data available.
Vapour density	: No data available.
Density [g/cm ³]	: No data available.
Relative density, liquid (water=1)	: Not applicable.
Solubility in water	: No data available.
Log Pow octanol / water at 20°C	: No data available.
Viscosity at 40°C [mm ² /s]	: No data available.

9.2. Other information

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9. Physical and chemical properties (continued)

Explosive properties	: No data available.
Explosion limits - upper [%]	: No data available.
Explosion limits - lower [%]	: No data available.
Oxidising properties	: No data available.

10. Stability and reactivity
10.1. Reactivity

Reactivity : Highly reactive material.

10.2. Chemical stability

Chemical stability : Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

Hazardous reactions : Contact with water liberates toxic gas.

10.4. Conditions to avoid

Conditions to avoid : Direct sunlight. Extremely high or low temperatures.

10.5. Incompatible materials

Materials to avoid : Strong acids. Strong bases.

10.6. Hazardous decomposition products

Hazardous decomposition products : Fumes. Carbon monoxide. Carbon dioxide.

11. Toxicological information
11.1. Information on toxicological effects

Acute toxicity	: LD50 Oral - rat - 82 mg/kg
• Inhalation	: Based on available data, the classification criteria are not met.
• Dermal	: Based on available data, the classification criteria are not met.
• Ingestion	: Toxic if swallowed.
Corrosion	: Based on available data, the classification criteria are not met.
Irritation	: Based on available data, the classification criteria are not met.
Sensitization	: Based on available data, the classification criteria are not met.

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11. Toxicological information (continued)

Mutagenicity	: Based on available data, the classification criteria are not met.
Carcinogenicity	: Based on available data, the classification criteria are not met.
Toxic for reproduction	: Based on available data, the classification criteria are not met.
STOT-single exposure	: Based on available data, the classification criteria are not met.
STOT-repeated exposure	: Based on available data, the classification criteria are not met.
Aspiration hazard	: Based on available data, the classification criteria are not met.

12. Ecological information
12.1. Toxicity

Toxicity information : Not established.

12.2. Persistence - degradability

Persistence - degradability : Biodegradable.

12.3. Bioaccumulative potential

Bioaccumulative potential : Not established.

12.4. Mobility in soil

Mobility in soil : Not established.

12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment : The substance does not fulfil the criteria to be identified as PBT substance or vPvB substance according to Annex XIII of Regulation REACH.

12.6. Other adverse effects

Environmental precautions : Avoid release to the environment.

13. Disposal considerations
13.1. Waste treatment methods

General	: Avoid release to the environment. Dispose in a safe manner in accordance with local/national regulations. Dispose of this material and its container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.
Special precautions	: Hazardous waste due to toxicity.

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14. Transport information

14.1. Land transport (ADR-RID)

Proper shipping name : NITRILES, TOXIC, SOLID, N.O.S.
UN N° : 3439
H.I. nr : 60
ADR - Class : 6.1
Labelling - Transport : 6.1 : Toxic substances.



ADR - Classification code : T2
ADR - Group : III
ADR - Packing instructions : P002 R001 LP002
ADR - Limited Quantity : 5 KG
ADR - Tunnel code



: E : Passage forbidden through tunnels of category E.

14.2. Sea transport (IMDG) [English only]

Proper shipping name : NITRILES, TOXIC, SOLID, N.O.S.
UN N° : 3439
IMO-IMDG - Class or division : 6.1 : Toxic substances.
IMO-IMDG - Packing group : III
IMO-IMDG - Packing instructions : P002 LP02
IMO-IMDG - Limited quantities : 5 kg
IMO-IMDG - Marine pollution : No
EMS-Nr : F-A S-A

14.3. Air transport (ICAO-IATA) [English only]

Proper shipping name : NITRILES, TOXIC, SOLID, N.O.S.
UN N° : 3439
IATA - Class or division : 6.1 : Toxic substances.
IATA - Packing group : III
IATA - Passenger and Cargo Aircraft : ALLOWED
- Passenger and Cargo - Packing instruction : 670

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14. Transport information (continued)

- Passenger and Cargo - Maximum Quantity/Packing	: 100 kg
IATA - Cargo only	: ALLOWED
- Cargo only - Packing instruction	: 677
- Cargo only - Maximum Quantity/Packing	: 200 kg
IATA - Limited Quantities	: 10 kg
ERG-Nr	: 6L

15. Regulatory information
15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Safety, health and environmental regulations/legislation specific for the substance or mixture	: Ensure all national/local regulations are observed.
REACH Restrictions - Annex XVII	: The components of this product are not subject to restrictions.
REACH Authorisation - Annex XIV	: The components of this product are not subject to authorization.

15.2. Chemical Safety Assessment

Chemical Safety Assessment	: It has not been carried out.
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16. Other information

Revision	: Revision - See : *
Abbreviations and acronyms	: PBT: persistent, bioaccumulative and toxic. vPvB: very persistent and very bioaccumulative
Sources of key data used	: REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006
List of relevant R phrases (heading 3)	: R25 : Toxic if swallowed. R29 : Contact with water liberates toxic gas.
List of full text of H-statements in section 3	: H301 : Toxic if swallowed. EUH029: Contact with water liberates toxic gas.
Further information	: None.

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In accordance with REACH Regulation (CE) N° 1907/2006 and with CLP Regulation (CE) N° 1272/2008

DISCLAIMER:

- **SUVCHEM** Products are to be used as Lab Chemicals for R&D only. Not for drug, medicinal, household or other uses.
- **SUVCHEM** shall not be responsible for any damage resulting from handling or from contact with the above product.
- **SUVCHEM** provides the information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product.

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