

MATERIAL SAFETY DATA SHEET

Product Name: Urea

CAS No.: 57-13-6

Version: 0

1. Identification

Product Code : 90267, 90585
Company Name : Advent Chembio Private Limited
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E-mail : info@adventchembio.com
WEBSITE : www.adventchembio.com
Company Phone Number : 022-27690837

2. Composition/Information on Ingredients

Ingredient	CAS No	Percent
UREA	57-13-6	99- 100%

3. Hazards Identification**Hazard classification****Health hazards**

Germ cell mutagenicity : Category 2
Specific target organ toxicity - single exposure : Category 3
Skin corrosion/irritation : Category 2
Serious eye damage/eye irritation : Category 2

Unknown toxicity

Acute toxicity, dermal : 100 %
Acute toxicity, inhalation, vapor : 100 %
Acute toxicity, inhalation, dust or mist : 100 %

Unknown toxicity

Acute hazards to the aquatic environment : 0 %
Chronic hazards to the aquatic environment : 100 %

Labels elements**Hazard symbol**

Signal word : Warning
Hazard statement : Causes serious eye irritation.
Suspected of causing genetic defects.
May cause drowsiness or dizziness.

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Precautionary statement**Prevention**

: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Avoid breathing dust/fume/gas/mist/vapors/spray.

Wear protective gloves/protective clothing/eye protection/face protection. Use only outdoors or in a well-ventilated area. Wash thoroughly after handling. .

Response

: IF exposed or concerned: Get medical advice/attention. **IF IN EYES:** Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. **IF INHALED:** Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.

Storage

: Store locked up. Store in a well-ventilated place. Keep container tightly closed.

Disposal

Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal .

Other hazards which do not result in GHS classification

: None.

4. First Aid Measures**General information**

: Get medical advice/attention if you feel unwell. If medical advice is needed, have product container or label at hand. Show this safety data sheet to the doctor in attendance.

Ingestion

: Rinse mouth. Call a POISON CENTER or doctor/physician if you feel unwell.

Inhalation

: Move to fresh air. Get medical attention if symptoms persist.

Skin contact

: Wash skin thoroughly with soap and water. Get medical attention if irritation persists after washing. Remove contaminated clothing and shoes. Wash contaminated clothing before reuse.

Eye contact

: Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. Get medical attention immediately.

Most important symptoms/effects, acute and delayed

: Causes serious eye irritation. Narcotic effect.

Indication of immediate medical attention and special treatment needed

: Treat symptomatically. Symptoms may be delayed.

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5. Fire fighting measures

- General fire hazards** : In the event of an explosion there is risk of ignition of surrounding materials and possible danger of flying metallic fragmentation.
- Suitable (and unsuitable) extinguishing media**
- Suitable extinguishing media** : Use fire-extinguishing media appropriate for surrounding materials .
- Unsuitable extinguishing media** : None known
- Specific hazards arising from the chemical** : None known.
- Special protective equipment and precautions for firefighters**
- Special fire fighting procedures** : Move containers from fire area if you can do so without risk. Use water spray to keep fire-exposed containers cool .
- Special protective equipment for fire-fighters** : Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.

6. Accidental Release Measures

- Personal precautions, protective equipment and emergency procedures** : Keep unauthorized personnel away. Use personal protective equipment. Keep upwind. Ventilate closed spaces before entering them. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.
- Methods and material for containment and cleaning up** : Shovel up and place in a container for salvage or disposal. Clean surface thoroughly to remove residual contamination. Avoid dust formation.
- Notification Procedures** : Inform authorities if large amounts are involved.
- Environmental precautions** : Prevent further leakage or spillage if safe to do so.

7. Handling and Storage

- Precautions for safe handling** : Do not handle until all safety precautions have been read and understood. Obtain special instructions before use. Use personal protective equipment as required. Avoid contact with eyes. Avoid inhalation of dust and vapors. Do not taste or swallow. Wash hands thoroughly after handling. Use only with adequate ventilation.
- Conditions for safe storage, including any incompatibilities** : Keep container tightly closed. Keep in a cool, well-ventilated place. Store in a dry place.

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8. Exposure Controls Personal Protection**Control parameters**

Occupational exposure limits : None of the components have assigned exposure limits

Appropriate engineering controls : No data available.**Individual protection measures, such as personal protective equipment**

- General information** : Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. An eye wash and safety shower must be available in the immediate work area. Use explosion-proof ventilation equipment.
- Eye/face protection** : Wear safety glasses with side shields (or goggles).
- Hand protection** : Chemical resistant gloves.
- Other** : Wear suitable protective clothing.
- Respiratory protection** : In case of inadequate ventilation use suitable respirator. Air-purifying respirator with a high efficiency particulate filter.
- Hygiene measures** : Provide eyewash station and safety shower. Observe good industrial hygiene practices. Wash hands before breaks and immediately after handling the product. Do not eat, drink or smoke when using the product. Wash contaminated clothing before reuse.

9. Physical and Chemical Properties

- Appearance** : White Solid Crystals or powder.
- Odor** : Ammoniacal odor
- pH** : 7.2 (10% solution)
- Melting point/freezing point** : 132.7 °C
- Initial boiling point and boiling range** : Decomposes
- Flash Point** : Not applicable
- Vapor pressure** : No data available.
- Vapor density** : No data available.
- Relative density** : 1.32 (20 °C)
- Solubility in water** : Soluble
- Solubility (other)** : No data available.
- Formula** : CH₄N₂O
- Molecular Weight** : 60.06 g/mol

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10. Stability and Reactivity

Reactivity	:	No dangerous reaction known under conditions of normal use.
Chemical stability	:	Material is stable under normal conditions.
Possibility of hazardous reactions	:	Hazardous polymerization does not occur.
Conditions to avoid	:	Excessive heat.
Incompatible materials	:	Strong oxidizing agents. Chlorinated compounds.
Hazardous decomposition products	:	Thermal decomposition may produce oxides of carbon and nitrogen. ammonia .

11. Toxicological Information**Information on likely routes of exposure**

Ingestion	:	Expected to be a low ingestion hazard.
Inhalation	:	May cause central nervous system effects.
Skin contact	:	May cause irritation.
Eye contact	:	Causes eye irritation.

Information on toxicological effects**Acute toxicity (list all possible routes of exposure)**

Oral Product	:	LD 50 (Rat): 8,471 mg/kg.
Dermal Product	:	No data available.
Inhalation Product	:	No data available.
Repeated dose toxicity Product	:	No data available.
Skin corrosion/irritation Product	:	May cause skin irritation.
Serious eye damage/eye irritation Product	:	Causes serious eye irritation.
Respiratory or skin sensitization Product	:	Not a skin sensitizer.
Carcinogenicity Product	:	This substance has no evidence of carcinogenic properties .
IARC Monographs on the Evaluation of Carcinogenic Risks to Humans DIOXANE	:	No carcinogenic components identified.
US. National Toxicology Program (NTP) Report on Carcinogens DIOXANE	:	No carcinogenic components identified.
US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050	:	No carcinogenic components identified.
Germ cell mutagenicity In vitro Product	:	Suspected of causing genetic defects.

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In vivo Product	:	Suspected of causing genetic defects.
Reproductive toxicity Product	:	No components toxic to reproduction .
Specific target organ toxicity - single exposure Product	:	Narcotic effect.
Specific target organ toxicity - repeated exposure Product	:	None known.
Aspiration hazard Product	:	Not classified
Other effects	:	No data available.

12. Ecological Information**Ecotoxicity****Acute hazards to the aquatic environment :**

Fish Product : No data available .
Aquatic invertebrates Product : No data available.

Chronic hazards to the aquatic environment :

Fish Product : No data available.
Aquatic invertebrates Product : No data available.
Toxicity to Aquatic Plants Product: : No data available.

Persistence and degradability

Biodegradation Product : The product is moderately biodegradable.

BOD/COD ratio Product : No data available.

Bioaccumulative potential

Bioconcentration factor (BCF) Product : No data available on bioaccumulation.

Product

Partition coefficient n-octanol / water (log Kow) Product : Log Kow: -2.11

Mobility in soil

Mobility in soil : No data available .

Other adverse effects : The product components are not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment .

13. Disposal consideration

Disposal instructions : Discharge, treatment, or disposal may be subject to national, state, or local laws.

Contaminated packaging : Since emptied containers retain product residue, follow label warnings even after container is emptied.

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14. Transport Information

	UN No.	UN proper shipping name	Hazard Class(es)	Packaging group	Marine Pollutant
DOT			Not Regulated		
IMDG			Not Regulated		
IATA			Not Regulated		

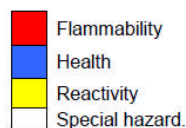
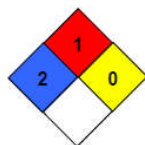
15. Regulatory Information

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

Safety, health and environmental regulations/legislation specific for the substance or mixture
No Data Available.

16. Other Information

NFPA Hazard ID



Hazard rating: 0 - Minimal; 1 - Slight; 2 - Moderate; 3 - Serious; 4 - Severe

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