



SECTION 1: IDENTIFICATION OF THE PRODUCT AND OF THE COMPANY

1.1 Product identifiers

Product Name: graphitic Carbon Nitride (g-C₃N₄)

Brand: Sharif Chemia

CAS-No.: 14333-20-7

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

Laboratory chemicals, Manufacturing of substances

1.3 Details of the supplier of the safety data sheet

Manufacturer: Sunyar Graphene Science
Graphena laboratories, Tehran, Iran

Telephone: + 971 566933685

Website: www.Sharifchemia.com



SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

Flammable liquids (Category 2), H225

Eye irritation (Category 2), H319

For the full text of the H-Statements mentioned in this Section, see Section 16

2.2 Label elements

Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.

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.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Substance name: Planar Carbon Nitride (C₃N₄)

Appearance: yellow powder

Synonyms: Poly [(8-amino-1,3,4,6,7,9,9b-heptaazaphenalene-2,5-diyl)imino]

Molecular Weight: 201.14832, g – C₃N₄

Molecular Formula: C₆H₃*2N₉



SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact

Wash off with soap and plenty of water. Consult a physician.

In case of eye contact

Flush eyes with water as a precaution.

If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water. 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 2.2) and/or in section 11.



SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2 Special hazards arising from the substance or mixture

Nature of decomposition products not known.

5.3 Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid dust formation. Avoid breathing vapors or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. For personal protection see section 8.

6.2 Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

6.3 Methods and materials for containment and cleaning up

Keep in suitable, closed containers for disposal.

6.4 Reference to other sections

For disposal see section 13.



SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

Suitable extinguishing media

For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a dry and dark place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Components with workplace control parameters

Contains no substances with occupational exposure limit values.

8.2 Exposure controls

Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

8.3 Personal protective equipment

Eye/face protection

Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).



Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Body Protection

Impervious clothing, flame retardant, antistatic protective clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

- 1) Appearance Form: light yellow powder - Colour: light yellow
- 2) Odour: Odorless
- 3) Initial boiling point and boiling range: 550 centigrade
- 5) Flammability (solid, gas): None



SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Cytotoxicity test report

Reporting statements of conformity: On the basis of the results, interpreted according to ISO 10993-5:2009 the test sample "Carbon Nitride Powder (CNx) – Sharif Chemia company is considered **NON-CYTOTOXIC**.

Genotoxicity test report

Reporting statements of conformity:

On the basis of the results, interpreted according to ISO 10993-3:2014 the test sample "Carbon Nitride Powder (CNx) - Sharif Chemia Company is considered **NON-GENOTOXIC**.

Hemolysis test report

Reporting statements of conformity:

On the basis of the results, interpreted according to ISO 10993-4:2017 the test sample "Carbon Nitride Powder (CNx) - Sharif Chemia Company Company is considered **NON-Hemolytic** and satisfied the requirements of the test.

in-vivo irritation

The irritation response category in a rabbit for 72 ± 2 hours was 0, so the mean score is Negligible. The results provide evidence to support that the powder is **Non-Irritating**.

skin sensitization

The sensitization response category in a Guinea pigs for 48 ± 2 hours were 0, so the mean score is No visible change. The results provide evidence to support that the powder is Non-Sensitizing.



SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity

None

12.2 Persistence and degradability

No data available

12.3 Bio accumulative potential

No data available

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

This substance/mixture contains no components considered to be either persistent, bio accumulative and toxic (PBT), or very persistent and very bio accumulative (vPvB) at levels of 0.1% or higher.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated packaging

Dispose of as unused product.



SECTION 14: TRANSPORT INFORMATION

DOT (US)

Not dangerous goods

IMDG

Not dangerous goods

IATA

Not dangerous goods

“Carbon Nitride (C₃N₄) powder is NON-RESTRICTED as per IATA SP A197”

SECTION 15: REGULATORY INFORMATION

SARA 302 Components

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302. SARA 313 Components This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards

No SARA Hazards.

Massachusetts Right To Know Components

Graphitic Carbon Nitride CAS-No. 143334-20-7

Pennsylvania Right To Know Components

Graphitic Carbon Nitride CAS-No. 143334-20-7

New Jersey Right To Know Components

Graphitic Carbon Nitride CAS-No. 143334-20-7



California Prop. 65 Components

This product does not contain any chemicals known to State of California to cause cancer,

SECTION 16: OTHER INFORMATION

Further Information

HMIS Rating

Health hazard: 0

Chronic Health Hazard: * Flammability: 0

Physical Hazard: 0

NFPA Rating

Health hazard: 0

Fire Hazard: 0

Reactivity Hazard: 0

Disclaimer: Sharif Chemia, LLC believes that the information in this Safety Data Sheet is accurate and represents the best and most current information available to us. Sharif Chemia makes no representations or warranties either express or implied, regarding the suitability of the material for any purpose or the accuracy of the information contained within this document. Accordingly, Sharif Chemia will not be responsible for damages resulting from use of or reliance upon this information.

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