

SAFETY DATA SHEET

according to GB/T 16483 and GB/T 17519

1. PRODUCT AND COMPANY IDENTIFICATION

Product identifier

Product name : Fumaronitrile
CAS No. : 764-42-1

Manufacturer or supplier's details

Company : Heynova (Shanghai) New Material Technology CO., Ltd
Address : Building 3, No. 690 Bibo Road, Pudong New Area, Shanghai, China
Telephone : +86-178-2110-2608
E-mail address : info@heynovachem.com

2. HAZARDS IDENTIFICATION

Emergency Overview

Appearance : Solid form
Color : white - yellow

Toxic if swallowed, in contact with skin or if inhaled. Causes skin irritation. Causes serious eye irritation.

GHS Classification

Acute toxicity (Oral) : Category 3
Acute toxicity (Inhalation) : Category 3
Acute toxicity (Dermal) : Category 3
Skin corrosion/irritation : Category 2
Serious eye damage/eye irritation : Category 2A

GHS label elements

Hazard pictograms :



Signal Word : Danger

Hazard Statements : H301 + H311 + H331 Toxic if swallowed, in contact with skin or if inhaled.
H315 Causes skin irritation.
H319 Causes serious eye irritation.

Precautionary Statements :

Prevention:

P261 Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray.
P264 Wash skin thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P271 Use only outdoors or in a well-ventilated area.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response:

P301 + P310 + P330 IF SWALLOWED: Immediately call a POISON

CENTER/ doctor. Rinse mouth.

P302 + P352 + P312 IF ON SKIN: Wash with plenty of water. Call a POISON CENTER/ doctor if you feel unwell.

P304 + P340 + P311 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/ doctor.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P332 + P313 If skin irritation occurs: Get medical advice/ attention.

P337 + P313 If eye irritation persists: Get medical advice/ attention.

P361 + P364 Take off immediately all contaminated clothing and wash it before reuse.

Storage:

P403 + P233 Store in a well-ventilated place. Keep container tightly closed.

P405 Store locked up.

Disposal:

P501 Dispose of contents/ container to an approved waste disposal plant.

Physical and chemical hazards

Not classified based on available information.

Health hazards

Toxic if swallowed. Toxic if inhaled. Toxic in contact with skin. Causes skin irritation. Causes serious eye irritation.

Environmental hazards

Not classified based on available information.

Other hazards which do not result in classification

None known.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Substance

Components

Chemical name	CAS RN	Concentration (% w/w)
Fumaronitrile	764-42-1	98

4. FIRST AID MEASURES

- If inhaled : Remove person to fresh air and keep comfortable for breathing.
Call a POISON CENTER or doctor/ physician.
- In case of skin contact : Take off all contaminated clothing immediately.
Wash off with soap and plenty of water.
Call a POISON CENTER or doctor/ physician if you feel unwell.
- In case of eye contact : Rinse with plenty of water.
If easy to do, remove contact lens, if worn.
If eye irritation persists: Get medical advice/ attention.
- If swallowed : Immediately call a POISON CENTER or doctor/ physician.
Rinse mouth.
- Most important symptoms and effects, both acute and delayed : None known.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media : Dry powder, Foam, Water spray, Carbon dioxide (CO₂)

Specific hazards during fire fighting	: No information available.
Specific extinguishing methods	: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Immediately evacuate personnel to safe areas. Remove undamaged containers from fire area if it is safe to do so.
Special protective equipment for fire-fighters	: Use personal protective equipment.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	: Wear suitable protective equipment. Keep people away from and upwind of spill/leak. Entry to non-involved personnel should be controlled around the leakage area by roping off, etc.
Environmental precautions	: Prevent product from entering drains.
Methods and materials for containment and cleaning up	: Pick up and arrange disposal without creating dust.

7. HANDLING AND STORAGE

Handling

Technical measures	: Prevent dispersion of dust.
Local/Total ventilation	: Ensure adequate ventilation. Handle product only in closed system or provide appropriate exhaust ventilation at machinery. Use a local exhaust ventilation.
Advice on safe handling	: Avoid contact with skin, eyes and clothing. Wear personal protective equipment. Wash hands and face thoroughly after handling.
Avoidance of contact	: Oxidizing agents

Storage

Conditions for safe storage	: Keep container tightly closed. Store in a cool and shaded area. Keep in a well-ventilated place. Store locked up.
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8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredients with workplace control parameters

Contains no substances with occupational exposure limit values.

Engineering measures	: Install a closed system or local exhaust. Also install safety shower and eye bath.
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Personal protective equipment

Respiratory protection	: Dustproof gas mask Self-contained breathing apparatus
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Eye/face protection	: Safety glasses Safety goggles Face-shield
Skin and body protection	: Impervious protective clothing
Hand protection	: Impervious gloves

*Use personal protective equipment(PPE) approved under appropriate government standards and follow local and national regulations.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	: solid
Color	: white - yellow
Odor	: No data available
Odor Threshold	: No data available
pH	: No data available
Melting point/freezing point	: 97 °C
Boiling point/boiling range	: 186 °C
Flash point	: No data available
Evaporation rate	: No data available
Flammability	: No data available
Upper explosion limit / Upper flammability limit	: No data available
Lower explosion limit / Lower flammability limit	: No data available
Vapor pressure	: No data available
Solubility(ies)	
Water solubility	: soluble
Solubility in other solvents	: soluble Solvent: Ether
	soluble Solvent: Benzene
	soluble Solvent: Acetone
	soluble Solvent: Ethanol
Partition coefficient: n-octanol/water	: No data available
Autoignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity	
Viscosity, dynamic	: No data available
Viscosity, kinematic	: No data available
Molecular weight	: 78.07 g/mol

10. STABILITY AND REACTIVITY

Reactivity	:	No data available
Chemical stability	:	Stable under normal conditions.
Possibility of hazardous reactions	:	None under normal processing.
Incompatible materials	:	Oxidizing agents
Hazardous decomposition products	:	Carbon monoxide, Carbon dioxide (CO ₂), Nitrogen oxides (NO _x)

11. TOXICOLOGICAL INFORMATION**Acute toxicity****Product:**

Acute oral toxicity	:	Assessment: The component/mixture is toxic after single ingestion.
Acute inhalation toxicity	:	Assessment: The component/mixture is toxic after short term inhalation.
Acute dermal toxicity	:	Assessment: The component/mixture is toxic after single contact with skin.

Components:**Fumaronitrile:**

Acute oral toxicity	:	LD50 (Rat): 132 mg/kg Assessment: The component/mixture is toxic after single ingestion.
Acute inhalation toxicity	:	Assessment: The component/mixture is toxic after short term inhalation.
Acute dermal toxicity	:	Assessment: The component/mixture is toxic after single contact with skin.
Acute toxicity (other routes of administration)	:	LD50 (Mouse): 38 mg/kg Application Route: Intraperitoneal injection LD50 (Mouse): 56 mg/kg Application Route: Intravenous

Skin corrosion/irritation**Product:**

Result	:	Skin irritation
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Components:**Fumaronitrile:**

Result	:	Skin irritation
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Serious eye damage/eye irritation**Product:**

Result	:	Eye irritation
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Components:**Fumaronitrile:**

Result	:	Eye irritation
Respiratory or skin sensitization	:	No information available.
Germ cell mutagenicity	:	No information available.
Carcinogenicity	:	No information available.
Reproductive toxicity	:	No information available.
STOT-single exposure	:	No information available.
STOT-repeated exposure	:	No information available.
Repeated dose toxicity	:	No information available.
Aspiration toxicity	:	No information available.
RTECS No.	:	LT2300000 (Fumaronitrile)

12. ECOLOGICAL INFORMATION**Ecotoxicity**

No data available

Persistence and degradability

No data available

Bioaccumulative potential

No data available

Mobility in soil

No data available

Other adverse effects

No data available

13. DISPOSAL CONSIDERATIONS**Disposal methods**

Waste from residues	:	Disposal in accordance with local and national regulations. Entrust disposal to a licensed waste disposal company.
Contaminated packaging	:	Disposal in accordance with local and national regulations. Before disposal of used container, remove contents completely.

14. TRANSPORT INFORMATION**International Regulations****IATA-DGR**

UN/ID No.	:	UN 3439
Proper shipping name	:	Nitriles, solid, toxic, n.o.s.
Class	:	6.1
Packing group	:	III

IMDG-Code

UN number : UN 3439
Proper shipping name : NITRILES, SOLID, TOXIC, N.O.S.
Class : 6.1
Packing group : III
EmS Code : F-A, S-A

Domestic regulation**GB 6944/12268**

UN number : UN 3439
Proper shipping name : NITRILES, TOXIC, SOLID, N.O.S.
Class : 6.1
Packing group : III

15. REGULATORY INFORMATION**Measures on the Environmental Administration of New Chemical Substances Registration**

Registration/Notification number : B1A232216058

Downstream users need to comply with the conditions of safe use of the chemical, understand the environmental and health hazard and risk management measures identified on the SDS as well as the local/national regulations concerning the chemical.

The ingredients of this product are reported in the following inventories:

CH BAGREG : On the inventory, or in compliance with the inventory

TSCA : Substance(s) not active on TSCA inventory

AICS : Not in compliance with the inventory

DSL : None of the components of this product are on the Canadian DSL,
but all are on the NDSL

Fumaronitrile

ENCS : On the inventory, or in compliance with the inventory

ISHL : On the inventory, or in compliance with the inventory

KECI : Not in compliance with the inventory

PICCS : Not in compliance with the inventory

IECSC : Not in compliance with the inventory

NZIoC : On the inventory, or in compliance with the inventory

16. OTHER INFORMATION

Revision Date : 2024/12/07
Date format : yyyy/mm/dd

Disclaimer

This SDS was prepared sincerely based on the information obtained, however, any warranty shall not be given regarding the data contained and the assessment of hazards and toxicity. Prior to use, please investigate not only the hazards and toxicity information but also the laws and regulations of the organization, area and country where the products are to be used, which shall be given the first priority. The products are supposed to be used promptly after purchase in consideration of safety. Some new information or amendments may be added afterwards. If the products are to be used far behind the expected time of use or you have any questions, please feel free to contact us. The stated cautions are for normal handling only. In case of special handling operations, sufficient care should be taken, in addition to the safety measures suitable for

the given situation. All chemical products should be treated with the recognition of "having unknown hazards and toxicity", which differ greatly depending on the conditions and handling when in use and/or the conditions and duration of storage. The products must be handled only by those who are familiar with specialized knowledge and have experience or under the guidance of those specialists throughout use from opening to storage and disposal. Safe usage conditions shall be set up on each user's own responsibility.