

Expandable Graphite

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations
SDS ID: CSSS-TCO-010-154779
Issue date: 3/9/2023 Revision date: 3/9/2023 Version: 1.0

SECTION 1: Identification

1.1. Identification

Product form	: Substance
Substance name	: Expandable Graphite
IUPAC name	: Sulphuric acid, compound with graphite
CAS-No.	: 12777-87-6
Product code	: Nyagraph 20, Nyagraph 35, Nyagraph 249, Nyagraph 249C, Nyagraph 251, Nyagraph 252, Nyagraph 351, Nyagraph 802.

1.2. Recommended use and restrictions on use

Recommended use	: Used as a flame retardant.
Restrictions on use	: Not available

1.3. Supplier

ADT (ASIA) CO., LIMITED
5/F, KAM SANG BUILDING, 257 DES VOEUX ROAD CENTRAL, HONG KONG
MANUFACTURER:
SHIJIAZHUANG ADT CARBONIC MATERIAL FACTORY
GENGZHUANG, JINZHOU CITY, SHIJIAZHUANG, HEBEI, CHINA
OEM MANUFACTURER:
QINGDAO ABUNDANT NEW CARBON MATERIALS CO., LTD
GRAPHITE NEW MATERIAL INDUSTRIAL ZONE, NANSHU TOWN, LAIXI CITY, QINGDAO, SHANDONG, CHINA
T +86-311-66600705 - F +86-311-66600706
[Mike.Qu\(adt_mike@163.com\)](mailto:Mike.Qu(adt_mike@163.com))

1.4. Emergency telephone number

Emergency number	: +86-311-66600705
------------------	--------------------

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS US classification

Not classified

2.2. GHS Label elements, including precautionary statements

GHS US labelling

No labelling applicable

2.3. Other hazards which do not result in classification

No additional information available

2.4. Unknown acute toxicity (GHS US)

No additional information available

Expandable Graphite

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

SECTION 3: Composition/information on ingredients

3.1. Substances

Substance type : UVCB

Name	Product identifier	%	GHS US classification
Sulphuric acid, compound with graphite (Main constituent)	CAS-No.: 12777-87-6	100	Not classified

Full text of hazard classes and H-statements : see section 16

3.2. Mixtures

Not applicable

SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact : Wash skin with plenty of water.
First-aid measures after eye contact : Rinse eyes with water as a precaution.
First-aid measures after ingestion : Call a poison center or a doctor if you feel unwell.

4.2. Most important symptoms and effects (acute and delayed)

No additional information available

4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : Material in or near fire should be cooled with water spray or fog.
Unsuitable extinguishing media : Not available.

5.2. Specific hazards arising from the chemical

Reactivity in case of fire : On combustion, forms: carbon oxides (CO and CO₂). Sulphur oxides.
Hazardous decomposition products in case of fire : Toxic fumes may be released.

5.3. Special protective equipment and precautions for fire-fighters

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures : Ventilate spillage area.

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer

Expandable Graphite

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Land Spill: Material is very slippery. Use carefully when working with spilled material. Spilled or released material should be picked up with a suitable implement and returned to the original container if reusable. If not reusable, the material should be placed in special containers for disposal. Clean the area by wet mop or vacuum with a unit which contains a HEPA filter. Personnel involved in the cleanup should wear appropriate personal protective equipment (see Section 8). Unauthorized personnel should be kept out of the area of spills or releases. Do not allow material enter storm or sanitary sewers, groundwater or soil.
Water Spill: Releases should be reported to local, provincial or federal authorities.

Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Avoid breathe in dust, contacts with eyes, skin and clothes, long-term or repeated exposition. Provide good ventilation of working area (local exhaust ventilation, if necessary). If workplace exposure limits are exceeded, respiratory protection approved for this particular job must be worn. Avoid formation of dust. Keep away from sources of heat and ignition. Good ventilation of working rooms, chemical-resistant floors and washing facilities at the workplace, emergency showers on activities with larger amounts.

Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in labelled, closed containers, and keep away from heat, spark, open flames and other sources of ignition. Do not near incompatible chemicals cited in section 10.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Sulphuric acid, compound with graphite (12777-87-6)

No additional information available

8.2. Appropriate engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station.
Environmental exposure controls : Avoid release to the environment.

8.3. Individual protection measures/Personal protective equipment

Hand protection:

Protective gloves

Expandable Graphite

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Eye protection:

Safety glasses

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment

Personal protective equipment symbol(s):



SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Solid
Colour	: Black
Odour	: Slight odour to odourless
Odour threshold	: No data available
pH	: 2.01 (20 °C, Concentration: 49 g/L)
Melting point	: No data available
Freezing point	: Not applicable
Boiling point	: No data available
Flash point	: Not applicable
Relative evaporation rate (butylacetate=1)	: No data available
Flammability (solid, gas)	: Non flammable.
Vapour pressure	: < 0.001 hPa (20 °C)
Relative vapour density at 20°C	: No data available
Relative density	: No data available
Density	: 0.2 – 1.2 g/cm³ Type: 'bulk density' Temp.: 20 °C
Solubility	: Water: 614 mg/l (20 °C)
Partition coefficient n-octanol/water (Log Pow)	: No data available
Auto-ignition temperature	: Not applicable
Decomposition temperature	: No data available
Viscosity, kinematic	: Not applicable
Viscosity, dynamic	: No data available
Explosive limits	: Not applicable
Explosive properties	: Non explosive.
Oxidising properties	: Non oxidizing.

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

Expandable Graphite

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

Incompatible materials. Avoid extreme heat. Avoid direct sunlight. Avoid temperature >120°C.

10.5. Incompatible materials

Strong oxidizing agents.

10.6. Hazardous decomposition products

Thermal decomposition or combustion may produce dense smoke, oxides of carbon and sulphur, and other low molecular weight organic compounds.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified

Sulphuric acid, compound with graphite (12777-87-6)

LD50 dermal rat	> 2000 mg/kg bodyweight
-----------------	-------------------------

Skin corrosion/irritation	: Not classified
Serious eye damage/irritation	: Not classified
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
STOT-single exposure	: Not classified
STOT-repeated exposure	: Not classified
Aspiration hazard	: Not classified

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general	: The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.
-------------------	---

Sulphuric acid, compound with graphite (12777-87-6)

LC50 96h - Fish [1]	> 100 mg/l
EC50 48h - Crustacea [1]	> 100 mg/l
EC50 72h algae	> 100 mg/l

12.2. Persistence and degradability

The product is expected to be non-biodegradable.

Expandable Graphite

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

12.3. Bioaccumulative potential

No additional information available

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Disposal methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

SECTION 14: Transport information

In accordance with DOT / TDG / IMDG / IATA

14.1. UN number

Not regulated for transport

14.2. UN proper shipping name

Proper Shipping Name (DOT)	: Not applicable
Proper Shipping Name (TDG)	: Not applicable
Proper Shipping Name (IMDG)	: Not applicable
Proper Shipping Name (IATA)	: Not applicable

14.3. Transport hazard class(es)

DOT

Transport hazard class(es) (DOT) : Not applicable

TDG

Transport hazard class(es) (TDG) : Not applicable

IMDG

Transport hazard class(es) (IMDG) : Not applicable

IATA

Transport hazard class(es) (IATA) : Not applicable

14.4. Packing group

Packing group (DOT)	: Not applicable
Packing group (TDG)	: Not applicable
Packing group (IMDG)	: Not applicable
Packing group (IATA)	: Not applicable

14.5. Environmental hazards

Other information : No supplementary information available.

Expandable Graphite

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

14.6. Special precautions for user

DOT

No data available

TDG

No data available

IMDG

No data available

IATA

No data available

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15: Regulatory information

15.1. US Federal regulations

Commercial status of components according to the United States Environmental Protection Agency's Toxic Substances Control Act (TSCA):

Name	CAS-No.	Listing	Commercial status	Flags
Expandable Graphite	12777-87-6	Present	Active	

15.2. International regulations

CANADA

Expandable Graphite (12777-87-6)

Listed on the Canadian NDSL (Non-Domestic Substances List)

EU-Regulations

No additional information available

National regulations

No additional information available

15.3. US State regulations

No additional information available

SECTION 16: Other information

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Revision date : 3/9/2023

Safety Data Sheet (SDS), USA

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.