NUMCHAI INDUSTRY CO.,LTD

Safety data sheet

Sulphur powder

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifiers

Product name	: Sulphur powder
Synonysms	: Sulphur powder , Atomic sulphur
Chemical Formula	: S
Molecular Weight	: 32.06
CAS number	: 7704-34-9

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

Identified uses	: Laboratory chemicals, Manufacture of substances

1.3 Details of the supplier of the safety data sheet

Manufacture	: Numchai Industry Co.,Ltd.
Factory	: 84 Moo.1 Rama 2 Rd., Bangtorad Amphur Muang , Samutsakorn 74000 Thailand
Telephone number	: +66034-432518-20
Fax number	: +66034-4325-519

1.4 Emergency telephone

Emergency phone	: +66034-432518-20

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

Flammable solid (Category 2), H228

Skin Corrosion/Irritation (Category 2), H315

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

2.2 Label elements

Labelling according Regulation (EC) No 1272/2008

Pictogram

Signal word	Danger
Hazard statement(s)	
H228	Flammable solid.
H315	Skin Corrosion/Irritation.
Precautionary statement(s)	
P264	Wash hand thoroughly after handling.
P280	Wear protective gloves/ protective clothing/ eye protection/ face protection.
P302 + P352	IF ON SKIN : Take off immediately all contaminated clothing. Immediately rinse with water for several minutes.
P332 + P313	If skin symptoms occur: Seek medical advice/see a doctor.
P362 + P364	Wash contaminated clothing before reuse**.**
2.3 Other hazards	None

SECTION 3: Composition/information on ingredients

3.1 Substances

Product name	: Sulphur powder
Synonysms	: Sulphur powder , Atomic sulphur
Formula	: S
Molecular weight	: 32.06 g/mol
CAS-No.	: 7704-34-9
UN number	: 1530
EC-No.	: 231-722-6
Index-No.	: 016-094-00-1

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

SECTION 4: First aid measures

4.1 Description of first-aid measures

General advice Show this safety data sheet to the doctor in attendance.

Inhalation Move to fresh air in case of accidental inhalation of vapors. Keep patient warm. In case of shortness of breath, give oxygen. Apply artificial respiration only if patient is not breathing or under medical supervision. No artificial aspiration mouth to mouth or mouth to nose. Use suitable instruments/apparatus.

Skin contact Wash off immediately with plenty of water for at least 15 minutes. If skin irritation persists,call a physician.

Eye contact If the substance has got into the eyes, immediately wash out with plenty of water at least 15 minutes. Obtain medical attention.

Ingestion After swallowing: make victim drink water (two glasses at the most), avoid vomiting, risk of perforation. Immediately call in physician. Do not attempt to neutralize.

4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in section 2.2 and section 11

4.3 Indication of any immediate medical attention and special treatment needed

No data available

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

In adaption to materials stored in the immediate neighborhood.

5.2 Special hazards arising from the substance or mixture

Flammable. Containers may explode when heated. Dust can form an explosive mixture with air. Fine dust dispersed inair mayignite.

5.3 Advice for firefighters

Do not stay in dangerous zone without self-contained breathing apparatus. In order to avoid contact with skin, keep a safety distance and wear suitable protective clothing.

5.4 Further information

Contain escaping vapors with water. Prevent fire-fighting water from entering surface water or ground water.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Evacuate personnel to safe areas. Do not breathe vapors or spray mist. Wear a positive-pressure supplied-air respirator, flame retardant antistatic protective clothing. Shut off leaks if without risk. Keep people away from and upwind of spill/leak.

6.2 Environmental precautions

Contain or absorb leaking liquid with sand or earth, consults an expert. Prevent liquid entering sewers, basements and workpits. If substance has entered a water course or sewer or contaminated soil, advise police.

6.3 Methods and materials for containment and cleaning up

Close drains, collect, tie up and pump out spilled liquids. Observe possible material restrictions. Sweep while dry. Dispose of contaminated area. Avoid generating dust.

6.4 Reference to other sections

For disposal see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Provision of good ventilation in the working area. The floor must be acid resistant. Suitable materials: generally resistant: Glass, Enamel. At lower temperatures: Polyethylene PE, Polyvinyl chloride, Polypropylene PP. At different concentrations and range of temperatures the resistance of metals may vary greatly. Before choosing materials of construction obtain specialized information. Unsuitable materials: non-noble metals. Do not leave container open. Avoid any contact when handling the substance.

7.2 Conditions for safe storage, including any incompatibilities

Keep tightly closed in a dry, cool and well-ventilated place. Keep out of direct sunlight and away from heat, water and incompatible materials. Requirements for containers, no metal containers.

7.3 Specific end use(s)

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

7.4 Environmental precautions

Setting up the substance to the environment because this substance affects living things, resulting in changes in the pH of the water

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

This product does not contain any hazardous materials with occupational exposurelimitsestablished by the region specific regulatory bodies.

8.2 Exposure controls

Appropriate engineering controls

The product should only be used in ventilation hoods and fans.

Individual protection measures (Personal protective equipment, PPE)

Eye/face protection Goggles giving complete protection to eyes.

Skin protection

Chemical resistant apron / corrosive protective clothing, heavy duty work shoes. Handle with gloves

- Full contact wears gloves from viton material.

- Splash contact wears gloves from butyl rubber material.

The select protective gloves have to satisfy the specifications of EU Directive 89/686 EEC and standard EN 374 derived from it.

Respiratory protection

In case of insufficient ventilation, wear suitable respiratory equipment. Required when vapor/aerosols are generated filter P2 (EN 141 or EN 14387).

Environmental exposure controls

Prevent liquid entering sewers, basements and workpits.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

a) Physical state	Solid
b) Color	colorless
c) Odor	odorless
d) Melting point/freezing point Melting point:	113 °C
e) Initial boiling point and boiling range	445 °C
f) Flammability (solid, gas)	No data available
g) Upper/lower flammability or explosive limits	No data available
h) Flash point	207 °C
i) Autoignition temperature	235 °C
j) Decomposition temperature	No data available
k) pH	No data available
l) Viscosity	8 mm²/s at 140 °C
m) Water solubility	No data available
n) Partition coefficient: n-octanol/water	No data available
o) Vapor pressure	10 mm/Hg at 246°C
p) Density	2.07 g/ml at 25 ºC
Relative density	No data available
q) Relative vapor density	No data available
r) Particle characteristics	No data available
s) Explosive properties	No data available
t) Oxidizing properties	none

SECTION 10: Stability and reactivity

10.1 Reactivity

Flammable organic mixtures

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

Possibility of hazardous reactions Risk of explosion in contact with: combustible substances, potassium, potassium hydroxide, bases, sodium, sodium hydroxide, organic substances, water, hydrogen peroxide

The substance can react dangerously with: aluminium, organic substances, reducing agents, nitric acid, acetonitrile, acrylonitrile, aminoethanol, conc. Ammonia, aniline, bromine pentafluoride, calcium hydride, pchloronitrobenzene + sulfur trioxide (heat)

10.4 Conditions to avoid

Strong heating.

10.5 Incompatible materials

Copper, mild steel, strong oxidizers

10.6 Hazardous decomposition products

Has a corrosive effect incompatible with metals, animals, vegetable tissues. Sulfur oxide, Hydrogen (Hazardous decomposition products from under contact with metals, danger

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Not Available

Acute oral toxicity

Not Available

Acute inhalation toxicity

Irritation to the respiratory system

Skin corrosion/irritation

Skin Corrosion/Irritation.

Serious eye damage/eye irritation

Burns, corneal lesions.

Respiratory or skin sensitization

Not Available

Germ cell mutagenicity

Not Available

Carcinogenicity

Not Available

Reproductive toxicity

Not Available

Teratogenicity

Not Available

Specific target organ toxicity (STOT) - single exposure

Not Available

Specific target organ toxicity (STOT) - repeated exposure

Not Available

Aspiration hazard

Not Available

Further information

The product should be handled with the care usual when dealing with chemicals.

SECTION 12: Ecological information

12.1 Toxicity

Not Available

12.2 Persistence and degradability

Not Available

12.3 Bioaccumulative potential

Not Available

12.4 Mobility in soil

No Available

12.5 Other adverse effects

Harmful effect on aquatic organisms. Harmful effect due to pH shift. Toxic effect on fish and algae. Caustic even in diluted form. Does not cause biological oxygen deficit. Endanger drinking water supplies if allowed to enter soil and/or waters in large quantities. Neutralization possible in waste water treatment plants. Do not allow to enter waters, waste water or soil.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product

There are no uniform EC Regulations for the disposal of chemicals or residues. Chemical residues generally count as special waste. The disposal of the latter is regulated in the EC member countries through corresponding law and regulations. We recommend that you contact either the authorities in charge or approved waste disposal companies which will advise you on how to dispose of special waste or burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Observe all federal, state, and local environmental regulations.

Contaminated packaging

Disposal in compliance with official regulations. Handle contaminated packaging as hazardous waste in the same way of the substance itself. If not officially specified differently, non-contaminated packaging may be treated like household waste or recycled.

SECTION 14: Transport information

Land Transport (ADR/RID)

UN proper shipping name	Sulphur powder
UN Number	1530
Transport hazard class	4.1
Packing group	III
Environmental hazards	No
Special precautions for user	Yes

Sea transport (IMDG)

UN proper shipping name	Sulphur powder
UN Number	1530
Transport hazard class	4.1
Packing group	III
Marine pollutant	No
Special precautions for user	Yes

Air transport (IATA)

UN proper shipping name	Sulphur powder

UN Number	1530
Transport hazard class	4.1
Packing group	III
Environmental hazards	No
Special precautions for user	Yes

River transport (AND/ADNR)

(Not examined)

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

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

Authorisations and/or restrictions on use

Regulation (EU) 2019/1148 on the marketing and use of explosives precursors : sulphuric acid

Other regulations

Take note of Dir 94/33/EC on the protection of young people at work.

15.2 Chemical Safety Assessment

A Chemical Safety Assessment has been carried out for this substance.

SECTION 16: Other information

Full text of H-Statements referred to under sections 2 and 3.

H228	Flammable solid.
H315	Skin Corrosion/Irritation.

Reference

Globally Harmonized System of Classification and Labelling of Chemicals (GHS).

Labelling according to EC Directives 67/548 EEC and Regulation (EC) No 1272/2008.

Transportation information according to Recommendations on the Transport of Dangerous Goods, Model Regulations. Twelfth revised edition. United Nations.

Institute for Occupational Safety and Health of the German Social Accident Insurance in Sankt

Augustin/Germany,

Source: IFA for Databases on hazardous substances (GESTIS).

Recommended restrictions

Take notice of labels and safety data sheets for the working.

Further information **:** Contact to Numchai Industry Co.,Ltd.