



DUDA ENERGY LLC

Safety Data Sheet Yellow Sulfur Powder

SECTION 1: Identification

1.1 Product identifier

Product name	Yellow Sulfur Powder
Product number	N/A
Brand	N/A
Substance name	Sulfur
EC no.	231-722-6
CAS no.	7704-34-9
Index no.	016-094-00-1

1.2 Other means of identification

None

1.3 Recommended use of the chemical and restrictions on use

Rubber industries, pesticides, fireworks.

1.4 Supplier's details

Name	Duda Energy LLC
Address	1112 Brooks St. Decatur, AL 35601 USA
Telephone	256.340.4866
Fax	Unavailable
email	Unavailable

1.5 Emergency phone number(s)

800.255.3924 (Chemtel)

SECTION 2: Hazard identification

2.1 Classification of the substance or mixture

GHS classification in accordance with: (US) OSHA (29 CFR 1910.1200)
- Skin corrosion/irritation (chapter 3.2), Cat. 2

2.2 GHS label elements, including precautionary statements

Pictogram



Signal word

Warning

Hazard statement(s)

H315

Causes skin irritation

Precautionary statement(s)

P264

Wash ... thoroughly after handling.

P280

Wear protective gloves/protective clothing/eye protection/face protection.

P302+P352

IF ON SKIN: Wash with plenty of water/...

P321

Specific treatment (see ... on this label).

P332+P313

If skin irritation occurs: Get medical advice/attention.

P362+P364

Take off contaminated clothing and wash it before reuse.

2.3 Other hazards which do not result in classification

Combustible dust

Statement regarding ingredients of unknown toxicity

N/A

SECTION 3: Composition/information on ingredients

3.1 Substances

Substance name	Sulfur
EC no.	231-722-6
CAS no.	7704-34-9
Index no.	016-094-00-1
Formula	S
Molecular weight	32.07
Other names / synonyms	Sulfur
Impurities and stabilizing additives	N/A

SECTION 4: First-aid measures

4.1 Description of necessary first-aid measures

General advice	Call a doctor. Move out of dangerous area.
If inhaled	Move to fresh air. If not breathing, give artificial respiration. Call a doctor if symptoms persist.
In case of skin contact	Wash off with soap and plenty of water. Call a doctor.
In case of eye contact	Flush eyes with water, thoroughly.

If swallowed
Never give anything by mouth to an unconscious person.
Rinse mouth with water. Call a doctor.

Personal protective equipment for first-aid responders
No data available

4.2 Most important symptoms/effects, acute and delayed

No further information available

4.3 Indication of immediate medical attention and special treatment needed, if necessary

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1 Suitable extinguishing media

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

5.2 Specific hazards arising from the chemical

On burning: produces sulfur oxides and other toxic fumes. Can melt and flow in a fire situation. If safe to do so, remove containers from path of fire. Keep containers cool with water spray.

5.3 Special protective actions for fire-fighters

Firefighters should wear SCBA and full protective clothing.

Further information

Flammable dust; avoid all ignition sources.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Avoid breathing dust.

6.2 Environmental precautions

Do not let product enter drains.

6.3 Methods and materials for containment and cleaning up

Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

Reference to other sections

Section 13: Disposal

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Further processing of solid materials may result in the formation of combustible dusts. The potential for combustible dust formation should be taken into consideration before additional processing occurs. Provide appropriate exhaust ventilation at places where dust is formed.

- 7.2 Conditions for safe storage, including any incompatibilities**
Keep container tightly closed in a dry and well-ventilated place.
Keep in a dry place.
Storage class (TRGS 510): Flammable solid hazardous materials

Specific end use(s)
None other than listed in Section 1

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

1. Sulfur (CAS: 7704-34-9 EC: 231-722-6)
No occupational exposure limits have been determined for this substance.

- 8.2 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 Individual protection measures, such as personal protective equipment (PPE)

Eye/face protection
Safety glasses

Skin protection
Handle with gloves (Nitrile, 0.11mm min)

Body protection
Chemical resistant outerwear is advised.

Respiratory protection
For nuisance exposures use type P95 (US)

Thermal hazards
N/A

Environmental exposure controls
Do not allow material into drains, ditches, water ways, etc..

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

Appearance/form (physical state, color, etc.)	Solid; Powder Yellow
Odor	Slight
Odor threshold	No data available
pH	No data available
Melting point/freezing point	117
Initial boiling point and boiling range	444
Flash point	207°C (closed cup)
Evaporation rate	No data available

Flammability (solid, gas)	No data available
Upper/lower flammability limits	No data available
Upper/lower explosive limits	Upper explosion limit: 6.83% Lower explosion limit: 0.17%
Vapor pressure	10 hPa @ 246°C 1 hPa @ 183.8°C
Vapor density	No data available
Relative density	2.07 g/mL @ 25°
Solubility(ies)	Insoluble in water
Partition coefficient: n-octanol/water	No data available
Auto-ignition temperature	240°C
Decomposition temperature	No data available
Viscosity	8mm ² /s @ 140°C
Explosive properties	No data available
Oxidizing properties	No data available

Other safety information

None

SECTION 10: Stability and reactivity

10.1 Reactivity

Corrosive to steel. Reacts violently with oxidizing agents.

10.2 Chemical stability

Stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

10.3 Possibility of hazardous reactions

Dust explosion hazard.

10.4 Conditions to avoid

Avoid dust generation. Avoid exposure to heat, sources of ignition, and open flame.

10.5 Incompatible materials

Incompatible with oxidizing agents, reducing agents, bases, halides, flammable materials, metal oxides, metal salts, strong acids.

10.6 Hazardous decomposition products

Sulfur dioxide.

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity

Sulphur

LDLO Oral - Rabbit - 175 mg/kg

LD50 Oral - Rat - > 2,000 mg/kg

LC50 Inhalation - Rat - 4 h - > 9.23 mg/l

LD50 Dermal - Rabbit - > 2,000 mg/kg

LDLO Intravenous - Rat - 8 mg/kg

LDLO Intravenous - Rabbit - 5 mg/kg
LDLO Intraperitoneal - Guinea pig - 55 mg/kg
LDLO Intravenous - Dog - 10 mg/kg

Skin corrosion/irritation

Contact with skin may cause mild irritation.

Serious eye damage/irritation

May be an eye irritant.

Respiratory or skin sensitization

Not a skin or respiratory sensitizer.

Germ cell mutagenicity

No data available

Carcinogenicity

No component of this product present at levels greater than or equal to 0.1% is identified or known as a carcinogen by IARC, ACGIH, NTP, or OSHA.

Reproductive toxicity

No data available

Summary of evaluation of the CMR properties

No data available

STOT-single exposure

No data available

STOT-repeated exposure

No data available

Aspiration hazard

No data available

Additional information

Symptoms of exposure may include burning sensation, coughing, wheezing, laryngitis, shortness of breath, headache, nausea, vomiting, and Dermatitis. To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

SECTION 12: Ecological information

Toxicity

Toxicity to fish:

LC50 - Oncorhynchus mykiss (rainbow trout) - > 180 mg/l - 96 h

LC50 - other fish - 866 mg/l - 96 h

Toxicity to aquatic invertebrates:

EC50 - Daphnia magna (Water flea) - > 5,000 mg/l - 48 h

Persistence and degradability

No data available

Bioaccumulative potential

No data available

Mobility in soil

No data available

Results of PBT and vPvB assessment

N/A

Other adverse effects

No data available

SECTION 13: Disposal considerations**Disposal of the product**

Store material in tightly sealed containers; deliver to authorized waste disposal site. Dispose of material in accordance with all applicable laws and regulations.

Disposal of contaminated packaging

Dispose of emptied containers as unused material.

Waste treatment

Waste of this material should be gathered and contained and delivered to an authorized waste disposal site.

Other disposal recommendations

Dispose of all material in accordance with any applicable laws and regulations.

SECTION 14: Transport information**DOT (US)**

UN Number: UN1350

Class: 9

Packing group: III

Proper shipping name: Sulfur

Reportable Quantity (RQ):

Poison inhalation hazard: No

IMDG

UN Number: UN1350

Class: 4.1

Packing group: III

EMS-No: F-A, S-G

Proper shipping name: SULPHUR

IATA

UN Number: UN1350

Class: 4.1

Packing group: III

Proper shipping name: Sulphur

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations specific for the product in question

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

Fire Hazard, Acute Health Hazard

Pennsylvania Right To Know Components

Sulfur

CAS-No.

7704-34-9

New Jersey Right To Know Components

Sulfur

CAS-No.

7704-34-9

Massachusetts Right To Know Components

Sulfur

CAS-No.

7704-34-9

California Prop. 65 Components

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

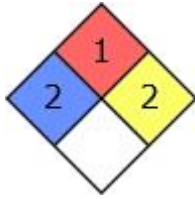
15.2 Chemical Safety Assessment

N/A

HMIS Rating

Sulfur
HEALTH 2
FLAMMABILITY 2
PHYSICAL HAZARD 2
PERSONAL PROTECTION

NFPA Rating



SECTION 16: Other information

16.1 Further information/disclaimer

The information provided in this Safety Data Sheet is correct to the best of Duda Energy LLC's knowledge, information, and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal, and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. This Safety Data Sheet only contains information relating to safety and does not replace any product information or product specification. Please note, the content may be changed, corrected, or deleted at any time without notice and may not always necessarily reflect the most current data. Duda Energy LLC will assume no responsibility for any trouble or failure caused by the errors in the information provided, nor any damage associated with the usage of the information.

16.2 Preparation information

Version: 2
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