沈阳广达化工有限公司
GUANGDA —主营润滑油添加剂和石油炼制助剂—

Safety data sheet

GUANGDA Safety data sheet
Date / Revised: 21.05.2023/08.04.2024 Version: 2.0
Product: **Sulfurized Fatty Acid Ester**

(D-SDS-06)
Date of print: 12.05.2025

1. Substance/preparation and manufacturer/supplier identification

Product name:
Sulfurized Fatty Acid Ester (GDT321H)

Use: Additive for lubricants

Manufacturer/supplier:
Shenyang Guangda Chemical Co., Ltd.
No. 4A, Xihe Liu North Street, Shenyang Economic & Technological Development Zone
Shenyang 110141, Liaoning, P.R CHINA
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Emergency information:
Emergency Advice Number: +86 24 25798341

2. Hazard Identification

GHS Classification:

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

GHS Label elements:

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

Physical and chemical hazards

Not classified based on available information.

Health hazards

Not classified based on available information.

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-No.	Concentration (% w/w)
Sulfurized Fatty Acid Ester	68390-93-2	<= 100

4. First-Aid Measures

Description of first aid measures:

General advice : Remove contaminated clothing

If inhaled : After inhalation of vapors during processing, remove the patient to fresh air at once.

On skin contact : Take off all contaminated clothing immediately.
If symptoms persist, call a physician.
Wash off immediately with soap and plenty of water.

On contact with eyes : In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

On ingestion : Call a physician. If material is ingested, do not induce vomiting unless directed to do so by medical personnel. Get medical attention.

Symptoms/Health Effects:

Inhalation : No significant adverse effects reported.

Eye Contact : No significant adverse effects reported.

Skin Contact : No significant adverse effects reported.

Ingestion : No significant adverse effects reported

Seek immediate medical attention:
Determine based on actual conditions

5. Fire-Fighting Measures

Suitable extinguishing media:

Carbon dioxide (CO2), Foam, Dry chemical

Special hazards arising from the substance or mixture:

In case of fire be aware of formation of sulfur dioxide and further toxic gases.
Do not allow run-off from firefighting to enter drains or water courses.

Advice for firefighters:

Special protective equipment: In the event of fire, wear self-contained breathing apparatus.
Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

6. Accidental Release Measures

Personal precautions:
PPE should wear protective gloves and there is no requirement for other protective equipment.
After the product leakage is detected, inform the pre-designated operators, quickly set up the prepared collection and storage facilities, collect the leaked product as soon as possible, and then remove the small amount of residual product.

Environmental precautions:
Prevent entry into drains, waters or soil.
Prevent further leakage or spillage if safe to do so

Methods for cleaning up or taking up:
Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).
Fill into labelled, sealable containers.

Preventive Measures Against Secondary Hazards:
If the leaked product enters the stormwater drainage network, immediately shut down the facility's stormwater discharge outlet, physically remove the product from the stormwater pipeline using non-sparking tools or divert the contaminated stormwater to the facility's emergency containment basin for phase separation.

7. Handling and Storage

Precaution for safe handling:

Provide adequate ventilation and, if necessary, exhaust ventilation during handling or transferring of the product.
Avoid contact with skin and eyes.
Dispose of rinse water in accordance with local and national regulations.

Storage Conditions:

Store in a cool, well-ventilated warehouse;
Keep away from ignition sources and heat;
Ensure containers are tightly sealed to prevent air ingress;
Store in transparent or translucent containers away from light.
Segregate from oxidizers and acids;
Equip storage areas with firefighting equipment;
Provide spill kits and containment materials.

Storage Container Specifications:

200L Galvanized Steel Drum;
200L Baked Paint Steel Drum
1 m^3 IBC Tank;
20 m^3 Tank or larger stainless-steel containers.
Prohibit the use of containers with moisture, rust, or foreign contaminants

Other data

No decomposition if stored and applied as directed.

8. Exposure controls and personal protection

Allowable concentration

No limited

Engineering Controls

Closed systems with local exhaust ventilation. If some links cannot be closed, it is recommended to use negative pressure to absorb volatile gas devices.

Personal protective equipment

Respiratory protection	:	Not required; except in case of aerosol formation. Avoid inhaling vapors
Hand protection	:	Chemical resistant protective gloves.
Eye protection	:	Safety glasses with side-shields (frame goggles) (e.g. EN 166).
Body protection	:	Clothing and gloves contaminated with the product should be thoroughly cleaned before reuse.
Hygiene measures	:	Wash hands before breaks and immediately after handling the product. Keep working clothes separately. Take off all contaminated clothing immediately.
Protective measures	:	When handling observe the usual precautionary measures for chemicals.

9. Physical and Chemical Properties

Appearance	:	Brown transparent liquid
Color (ASTM)	:	≤4
Odor	:	Characteristic
pH value	:	No data available
Melting point/Freezing point	:	Not applicable
Boiling point	:	No data available
Flash Point (Closed up)	:	≈180 ℃
Flammability Limits		
Upper limits	:	No data available
Lower limits	:	No data available
Vapor pressure	:	No data available
Density (20°C)	:	1.010 g/cm³
Kinematic Viscosity (40 ℃)	:	≥45 mm²/s
Solubility in water	:	Insoluble
Solubility in other solvents	:	Soluble in mineral oils and synthetic base oils.
Total Sulfur Content (wt.%)	:	≥17%
Active Sulfur Content (wt.%)	:	≈8%

10. Stability and Reactivity

Reactivity:
No hazards to be specially mentioned.

Chemical stability:
Stable under normal conditions.

Possibility of hazardous reactions:
Vapors may form explosive mixture with air.

Conditions to avoid
Extremes of temperature and direct sunlight.

Incompatible materials

Keep away from reducing agents, oxidizing agents, acids and bases.

Hazardous decomposition products
Decomposition begins at 180 °C with longer persisting heating.
Formation of hydrogen sulfide possible.
No hazardous reactions when stored and handled correctly.

11. Toxicological Information

General Information

Acute toxicity	:	LD50: > 5.000 mg/Kg Species: Rat Analogous assessment
Skin irritation/corrosion	:	Species: Rabbit No skin irritation
Eye irritation/damage	:	Species: Rabbit No eye irritation
Respiratory or skin sensitization	:	Not sensitizing
Germ cell mutagenicity	:	no data available
Carcinogenicity	:	no data available
Reproductive toxicity	:	no data available
STOT - single exposure	:	no data available
STOT - repeated exposure	:	no data available

Routes of exposure

Inhalation	:	no data available
Eye contact	:	no data available
Skin contact	:	No adverse reactions observed
Ingestion	:	No adverse reactions observed

Years of experience show that when the product is handled properly and with the usual precautions of industrial hygiene, the product will present no danger to health.

12. Ecological Information

Ecotoxicity

Toxicity to fish	:	LC50: 6.500 mg/l Exposure time: 96 h Test substance: Test results on an analogous product.
Toxicity to daphnia and other aquatic invertebrates	:	EC50: > 160 mg/l Exposure time: 48 h Species: Daphnia magna water accommodated extract (WAF)
Toxicity to bacteria	:	EC50: > 8.000 mg/l Test substance: Test results on an analogous product.

Mobility in soil
The product is insoluble and sinks in water.

Persistence/degradability
Not readily biodegradable. 22 %
Method: OECD Guideline for Testing of Chemicals, No. 301 F

Bioaccumulation potential
No data available.

Results of PBT and vPvB assessment
No data available

Other adverse effects

Biochemical Oxygen Demand (BOD)	:	no data available
Additional ecological information	:	Do not allow to escape into waterways, waste water or soil.
Contaminated packaging	:	The product is practically insoluble in water. In view of its consistency and insolubility in water, no ecological problems are to be expected if the product is properly handled. The product is not readily biodegradable (OECD 301).

13. Disposal Considerations

Waste treatment methods

Product	:	The relevant EC Directives as well as local, regional and national regulations have to be observed. It is among the tasks of the polluter to assign the waste to waste codes specific to industrial sectors and processes according to the European Waste Catalogue. It is recommended that details be sorted out with the waste disposer responsible.
Method of disposal	:	The waste can be disposed of in a suitable incinerator, provided that national/local legislation is complied with.
Contaminated packaging	:	After containers have been emptied as thoroughly as possible (e.g. by pouring, scraping or draining until "drip-dry"), they can be sent to an appropriate collection point set up within the framework of the existing take-back scheme of the chemical industry. Containers must be recycled in compliance with national legislation and environmental regulations.

14. Transport Information

Classification
Marine Transportation: Classified as non-restricted cargo under IMO IMDG Code.

Road Transport: Not subject to regulatory restrictions under JT/T617-2018 (China Road Transport Rules for Dangerous Goods).

Precautions:
Avoid contact with acids, oxidizers, and seawater during transportation to prevent packaging corrosion, which may lead to product leakage.
Keep separated from foodstuffs.

15. Regulatory Information

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

United States Federal Regulations

OSHA Hazcom Standard Non-Hazardous

Rating：

TSCA Inventory List: **On TSCA Inventory**

CERCLA Hazardous Substance:

Component(s)	Reportable Quantity
None	

SARA Title III

SARA Section 302 Extremely Hazardous Substances:

Component(s)/ CAS Number	Concentration Min.	Max.
None		

SARA Section 311/312 Hazard Categories: Non-hazardous under Section 311/312

SARA Section 313 Toxic Chemicals:

Component(s)/ CAS Number	Reporting Threshold	Concentration Min.	Max.
None			

RCRA Status: If discarded in its purchased form, this product would not be a hazardous waste either by listing or by characteristic. However, under RCRA, it is the responsibility of the product user to determine at the time of disposal, whether a material containing the product or derived from the product should be classified as a hazardous waste. (40 CFR 261.20-24)

European Union Regulations (REACH)

Water contaminating class (Germany)
WGK 1: slightly water endangering (VWVWS A4) self-classification

15.2 Chemical Safety Assessment
Chemical Safety Assessment not yet performed.

16. Other Information

The data contained in this safety data sheet are based on our current knowledge and experience and describe the product only with regard to safety requirements. This safety data sheet is neither a Certificate of Analysis (CoA) nor technical data sheet and shall not be mistaken for a specification agreement. Identified uses in this safety data sheet do neither represent an agreement on the corresponding contractual quality of the substance/mixture nor a contractually designated use. Our company shall not assume any legal responsibility in this Safety Data Sheet (SDS).

This Safety Data Sheet (SDS) was compiled on May 211st, 2023, and revised on April 8, 2024.