

CHEMICAL PRODUCT SAFETY DATA SHEET

Prepared in accordance with GB/T 16483 and GB/T 17519.



Product name: FUCHS TIM GREASE 413AN

Issue date: April-03-2025

Revision date: May-23-2025

Version #: 03

SDS No: 9097

SECTION 1 Chemical product and company identification

Product Name	FUCHS TIM GREASE 413AN
Company name	Nye Lubricants, Inc. A Member of the FUCHS Group
Address	12 Howland Road Fairhaven, MA 02179
Country	USA
Telephone	+1 508 996 6721
E-mail	sds@fuchs.com
Emergency telephone number	+86 4001 2001 74
Access code	334212
Website	www.nyelubricants.com

Recommended use and Limitations on use

Recommended use	Thermal Grease
Issue date	April-03-2025
Revision date	May-23-2025
Supersedes date	April-08-2025

SECTION 2 Hazards identification

Emergency overview	Causes serious eye irritation. Causes skin irritation. May cause irritation to the respiratory system. Dangerous for the environment if discharged into watercourses.
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GHS hazard categories

Physical hazards	Not classified.	
Health hazards	Skin corrosion/irritation	Category 2
	Serious eye damage/eye irritation	Category 2
	Specific target organ toxicity, single exposure	Category 3 respiratory tract irritation
Environmental hazards	Hazardous to the aquatic environment, acute hazard	Category 2
	Hazardous to the aquatic environment, long-term hazard	Category 2

Label elements

Pictograms



Signal word

Warning

Hazard statement

H315	Causes skin irritation.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H401	Toxic to aquatic life.
H411	Toxic to aquatic life with long lasting effects.

Precautionary statement

Prevention

P261	Avoid breathing dust/fume/gas/mist/vapors/spray.
P264	Wash thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P273	Avoid release to the environment.

P280 Wear eye protection/face protection.
P280 Wear protective gloves.

Response

P302 + P352 IF ON SKIN: Wash with plenty of water.
P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P312 Call a POISON CENTER/doctor if you feel unwell.
P332 + P313 If skin irritation occurs: Get medical advice/attention.
P337 + P313 If eye irritation persists: Get medical advice/attention.
P362 + P364 Take off contaminated clothing and wash it before reuse.
P391 Collect spillage.

Safety storage

P403 + P233 Store in a well-ventilated place. Keep container tightly closed.
P405 Store locked up.

Disposal

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

Physical and chemical hazards The product is stable and non-reactive under normal conditions of use, storage and transport. No unusual fire or explosion hazards noted.

Health hazards May cause irritation to the respiratory system. Prolonged inhalation may be harmful. Causes skin irritation. Expected to be a low ingestion hazard. Causes serious eye irritation.

Environmental hazards Toxic to aquatic life with long lasting effects.

Supplemental information None.

SECTION 3 Composition/information on ingredients

Substance/mixture	Mixture		
Chemical name	Concentration (%)	CAS Number	
氮化铝 ALUMINUM NITRIDE	60 - < 70	24304-00-5	
氧化锌 ZINC OXIDE	10 - < 20	1314-13-2	
癸酸、庚酸、异壬酸、辛酸和季戊四醇的混合四酯 DECANOIC ACID, MIXED TETRAESTERS WITH HEPTANOIC ACID, ISONONANOIC ACID, OCTANOIC ACID AND PENTAERYTHRITOL	3 - < 5	118685-24-8	
云母 MICA	3 - < 5	12001-26-2	
Other components below reportable levels	10 - < 20		

SECTION 4 First aid measures

Inhalation Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a poison center or doctor/physician if you feel unwell.

Skin contact Remove contaminated clothing. Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention. Wash contaminated clothing before reuse.

Eye contact Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.

Ingestion Rinse mouth. Get medical attention if symptoms occur.

Most important symptoms and health effects Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. May cause respiratory irritation. Skin irritation. May cause redness and pain.

Personal protection for first-aid responders If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

Notes to physician Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.

SECTION 5 Fire-fighting measures

Extinguishing media Water fog. Foam. Dry chemical powder. Carbon dioxide (CO₂).

Extinguishing media to avoid Do not use water jet as an extinguisher, as this will spread the fire.

Specific hazards During fire, gases hazardous to health may be formed.

Special fire fighting procedures	Use water spray to cool unopened containers.
Protection of fire-fighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
General fire hazards	No unusual fire or explosion hazards noted.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials.

SECTION 6 Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel	Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Do not touch or walk through spilled material.
For emergency responders	Keep unnecessary personnel away. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. Use personal protection recommended in Section 8 of the SDS.

Environmental precautions	Avoid release to the environment. Inform appropriate managerial or supervisory personnel of all environmental releases. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground.
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Clean-up methods and materials and containment measures	Prevent entry into waterways, sewer, basements or confined areas. Large Spills: Stop the flow of material, if this is without risk. Following product recovery, flush area with water.
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Small Spills: Clean surface thoroughly to remove residual contamination.

Prevention of secondary hazards	Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS. Not available.
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SECTION 7 Handling and storage

Handling	Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. Provide adequate ventilation. Wear appropriate personal protective equipment. Avoid release to the environment. Observe good industrial hygiene practices.
Storage	Store locked up. Store in tightly closed container. Store away from incompatible materials (see Section 10 of the SDS). Storage class (TRGS 510): 11 (Combustible solids that cannot be assigned to any of the above storage classes)

SECTION 8 Exposure controls/personal protection

Exposure limits

Occupational Exposure Limits for Hazardous Agents in the Workplace, Chemical Hazardous Agents (GBZ 2.1-2019)

Components	Type	Value	Form
MICA (CAS 12001-26-2)	PC-TWA	2 mg/m ³	Total dust.
		1.5 mg/m ³	Respirable dust.
ZINC OXIDE (CAS 1314-13-2)	PC-STEL	5 mg/m ³	
	PC-TWA	3 mg/m ³	

Biological limit values	No biological exposure limits noted for the ingredient(s).
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Monitoring methods	Follow standard monitoring procedures.
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Engineering measures	Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Provide eyewash station and safety shower.
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Personal protective equipment

Respiratory protection	In case of insufficient ventilation, wear suitable respiratory equipment.
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Hand protection	Wear appropriate chemical resistant gloves.
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Eye protection	Wear safety glasses with side shields (or goggles).
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Skin and body protection	Wear appropriate chemical resistant clothing.
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Hygiene measures

Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

SECTION 9 Physical and chemical properties**Appearance**

Physical state	Solid.
Form	Solid. Semi-solid
Color	Grey.
Odor	Not available.
pH	Not available.
Melting point/freezing point	Not available.
Boiling point, initial boiling point, and boiling range	Not available.
Flash point	Not available.
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	Not available.
Vapor density	Not available.
Relative density	Not available.
Density	Not available.
Solubility(ies)	
Solubility (water)	Not available.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Flammability (solid, gas)	Not available.
Other data	
Explosive properties	Not explosive.
Oxidizing properties	Not oxidizing.
Shelf life	5 years
Specific gravity	2.6

SECTION 10 Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Stability	Material is stable under normal conditions.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
Conditions to avoid	Contact with incompatible materials.
Incompatible materials	Strong oxidizing agents.
Hazardous decomposition products	No hazardous decomposition products are known.

SECTION 11 Toxicological information

Acute toxicity	Not available.
Routes of exposure	Inhalation. Skin contact. Eye contact.
Symptoms	Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. May cause respiratory irritation. Skin irritation. May cause redness and pain.
Skin corrosion/irritation	Causes skin irritation.
Serious eye damage/eye irritation	Causes serious eye irritation.
Respiratory or skin sensitization	
Respiratory sensitization	Not a respiratory sensitizer.
Skin sensitizer	This product is not expected to cause skin sensitization.

Germ cell mutagenicity	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.
Carcinogenicity	Not available.
Toxic to reproduction	This product is not expected to cause reproductive or developmental effects.
Specific target organ toxicity following single exposure	May cause respiratory irritation.
Specific target organ toxicity following repeated exposure	Not classified.
Aspiration hazard	Not an aspiration hazard.
Chronic effects	Prolonged inhalation may be harmful.

SECTION 12 Ecological information

Ecotoxicity	Toxic to aquatic life with long lasting effects.
Persistence and degradability	No data is available on the degradability of any ingredients in the mixture.
Bioaccumulation	No data available.
Mobility in soil	No data available for this product.
Other hazardous effects	No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

SECTION 13 Disposal considerations

Residual waste	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
Contaminated packaging	Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.
Local disposal regulations	Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.

SECTION 14 Transport information

CNDG

UN number	UN3077
UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (ZINC OXIDE)
Transport hazard class(es)	
Class	9
Subsidiary hazard	-
Packing group	III
Environmental hazards	Yes
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.

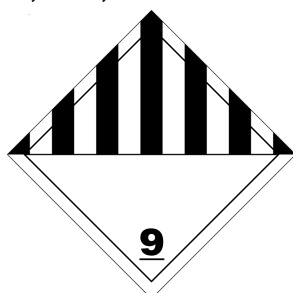
IATA

UN number	UN3077
UN proper shipping name	Environmentally hazardous substance, solid, n.o.s. (ZINC OXIDE)
Transport hazard class(es)	
Class	9
Subsidiary hazard	-
Packing group	III
Environmental hazards	Yes
ERG Code	9L
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
Other information	
Passenger and cargo aircraft	Allowed with restrictions.
Cargo aircraft only	Allowed with restrictions.

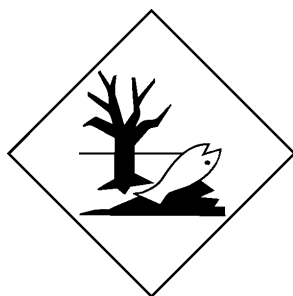
IMDG

UN number	UN3077
UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (ZINC OXIDE), MARINE POLLUTANT (ZINC OXIDE)
Transport hazard class(es)	
Class	9

Subsidiary hazard -
Packing group III
Environmental hazards
Marine pollutant Yes
EmS F-A, S-F
Special precautions for user Read safety instructions, SDS and emergency procedures before handling.
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.
CNDG; IATA; IMDG



Marine pollutant



General information IMDG Regulated Marine Pollutant.

SECTION 15 Regulatory information

Law of the People's Republic of China on Prevention and Control of Occupational Diseases

Classification of occupational disease hazards

Mica dust (CAS 12001-26-2)
Zinc oxide (CAS 1314-13-2)

Regulations on the Control over Safety of Dangerous Chemicals

Not regulated.

Provision on the Environmental Administration of New Chemical Substances

China Inventory of Existing Chemical Substances

Country(s) or region	Inventory name	On inventory (yes/no)*
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)
A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

SPECIAL CASE

Not applicable.

Other regulations

This safety data sheet conforms to the following laws, regulations and standards:
 Measures for the Safe Use of Chemicals in Workplaces
 General Rules for Preparation of Precautionary Labels for Chemicals (GB15258-2009)
 Regulations on Labor Protection in Workplaces Where Toxic Products Are Used
 Packing Symbol of Dangerous Goods(GB190-2009)
 Regulations on the Control over Safety of Dangerous Chemicals
 Safety Data Sheet for Chemical Products - Content and Order of Sections (GB/T 16483-2008)
 Packing - Pictorial Marking for Handling of Goods (GB/T191-2008)

China. National Catalogue of Hazardous Wastes

ZINC OXIDE (CAS 1314-13-2)

Regulatory information**Stockholm Convention**

Not applicable.

Rotterdam Convention

Not applicable.

Montreal Protocol

Not applicable.

Kyoto protocol

Not applicable.

Basel Convention

Not applicable.

SECTION 16 Other information**References**

EPA: AQUIRE database
GB6944-2012: Classification and Code of Dangerous Goods.
GB12268-2012: List of Dangerous Goods.
NLM: Hazardous Substances Data Base
US. IARC Monographs on Occupational Exposures to Chemical Agents

Disclaimer

Nye Lubricants, Inc. A Member of the FUCHS Group cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The information in the sheet was written based on the best knowledge and experience currently available.

Revision information

Product and Company Identification: Product and Company Identification