

MATERIAL SAFETY DATA SHEET

NYOGEL 744F-MS

According to EC Directive 2001/58/EC

1. Chemical and company identification

Name of chemical (Product name) NYOGEL 744F-MS

Supplier's company name, address and phone number

Company name Nye Lubricants, Inc. A Member of the FUCHS Group

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Fairhaven, MA 02719 United States

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Asia Pacific +1 760 476 3960
Access code 334212

Product Code NYOGEL 744F-MS

Recommended use of the chemical and restrictions on use

Intended use Lubricating Grease

2. Hazards identification

GHS classification

The product is not classified according to GHS.

GHS label elements

Pictograms None.

Signal words None.

Hazard statement The mixture does not meet the criteria for classification.

Precautionary statement

Prevention Observe good industrial hygiene practices.

Response Wash hands after handling.

Storage Store away from incompatible materials.

Disposal Dispose of waste and residues in accordance with local authority requirements.

Other hazards which do not result in classification None known.

Supplemental information Contains 2,5-FURANDIONE, DIHYDRO-3-(OCTADECENYL)-. May produce an allergic reaction.

Main symptoms and emergency overview

Main symptoms Direct contact with eyes may cause temporary irritation.

3. Composition/information on ingredients

Substance or mixture Mixture

Chemical name or generic name	CAS Number	Gazette notification		Concentration (%)
		ENCS no.	ISHL no.	
MOLYBDENUM DISULFIDE	1317-33-5	1-481	(1)-481	1.0 - 5.0
POLYPROPYLENE GLYCOL MONOBUTYLETHER	9003-13-8	(7)-97	(7)-97	1.0 - 5.0
SILICON DIOXIDE	7631-86-9		(1)-548	1.0 - 5.0
2,5-FURANDIONE, DIHYDRO-3-(OCTADECENYL)-	28777-98-2	(2)-852	(2)-852	0.10 - 1.0
PETROLEUM DISTILLATES, HYDROTREATED HEAVY PARAFFINIC	64742-54-7	9-1692		0.10 - 1.0

Other components below reportable levels 90 - 95

Chemical formula O₂Si (7631-86-9)

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4. First aid measures

If inhaled	Move to fresh air. Call a physician if symptoms develop or persist.
If on skin	Wash off with soap and water. Get medical attention if irritation develops and persists.
If in eyes	Rinse with water. Get medical attention if irritation develops and persists.
If swallowed	Rinse mouth. Get medical attention if symptoms occur.
Most important symptoms/effects, acute and delayed	Direct contact with eyes may cause temporary irritation.
Protection of first-aid responders	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.
Notes to physician	Treat symptomatically.

5. Fire-fighting measures

Extinguishing media	Water fog. Foam. Dry chemical powder. Carbon dioxide (CO ₂).
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.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. For personal protection, see section 8 of the SDS.
Environmental precautions	Avoid discharge into drains, water courses or onto the ground.
Methods and materials for containment and cleaning up	Stop the flow of material, if this is without risk. Following product recovery, flush area with water. For waste disposal, see section 13 of the SDS.

7. Handling and storage

Handling	
Technical measures (e.g. Local and general ventilation)	Provide adequate ventilation.
Safe handling advice	Avoid prolonged exposure. Observe good industrial hygiene practices.
Contact avoidance measures	Strong oxidizing agents. For further information, please refer to section 10 of the SDS.
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.
Storage	
Safe storage conditions	Store away from incompatible materials (see Section 10 of the SDS).
Safe packaging materials	Store in original tightly closed container.

8. Exposure controls/personal protection

Control parameters	Follow standard monitoring procedures.
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Occupational exposure limits

Japan. OELs - ISHL. Working Environment Measurement Standards, Ministry of Labor Notice No. 79 of September 1, 1988, as amended

Components	Type	Value	Form
SILICON DIOXIDE (CAS 7631-86-9)	TLV	0.025 mg/m ³	Dust.

Japan. OELs - JSOH (Japan Society of Occupational Health) Recommendation of Occupational Exposure Limits

Components	Type	Value	Form
PETROLEUM DISTILLATES, HYDROTREATED HEAVY PARAFFINIC (CAS 64742-54-7)	TWA	3 mg/m ³	Mist.
SILICON DIOXIDE (CAS 7631-86-9)	TWA	4 mg/m ³	Total dust.
		1 mg/m ³	Respirable dust.

US. ACGIH Threshold Limit Values (TLV)

Components	Type	Value	Form
MOLYBDENUM DISULFIDE (CAS 1317-33-5)	TWA	3 mg/m ³	Respirable fraction.
		10 mg/m ³	Inhalable fraction.
PETROLEUM DISTILLATES, HYDROTREATED HEAVY PARAFFINIC (CAS 64742-54-7)	TWA	5 mg/m ³	Inhalable fraction.

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.

Personal protective equipment

Respiratory protection

In case of insufficient ventilation, wear suitable respiratory equipment.

Hand protection

Wear appropriate chemical resistant gloves.

Eye protection

Wear safety glasses with side shields (or goggles).

Skin and body protection

Wear suitable protective clothing.



9. Physical and chemical properties

Physical state	Solid.
Form	Solid. Semi-solid
Color	Gray Black
Odor	Not available.
Melting point/freezing point	Not available.
Boiling point, initial boiling point, and boiling range	Not available.
Combustibility	Not available.

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Lower and upper explosion limit / flammability limit

Explosive limit - lower (%) Not available.

Explosive limit - upper (%) Not available.

Flash point Not available.

Auto-ignition temperature Not available.

Decomposition temperature Not available.

pH Not available.

Kinematic viscosity Not available.

Solubility(ies)

Solubility (water) Not available.

Partition coefficient
(n-octanol/water) (log value) Not available.

Vapor pressure Not available.

Density and/or relative density

Density 0.99 g/cm³

Relative density Not available.

Vapor density Not available.

Particle characteristics Not available.

Other information

Explosive properties Not explosive.

Oxidizing properties Not oxidizing.

Shelf life 4 years

10. Stability and reactivity

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

Chemical 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.

11. Toxicological information

Acute toxicity

Components	Species	Test Results
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MOLYBDENUM DISULFIDE (CAS 1317-33-5)

Acute

Dermal

LD50	Rat	2500 mg/kg
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Oral

LD50	Rat	3200 mg/kg
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POLYPROPYLENE GLYCOL MONOBUTYLETHER (CAS 9003-13-8)

Acute

Dermal

LD50	Rabbit	21 g/kg
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Oral

LD50	Rat	5.84 g/kg
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Components	Species	Test Results
SILICON DIOXIDE (CAS 7631-86-9)		
Acute		
Oral		
LD50	Rat	> 22500 mg/kg
Skin corrosion/irritation	Prolonged skin contact may cause temporary irritation.	
Serious eye damage/eye irritation	Direct contact with eyes may cause temporary irritation.	
Respiratory or skin sensitization		
Respiratory sensitization	Not a respiratory sensitizer.	
Skin sensitization	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		
ACGIH Carcinogens		
MOLYBDENUM DISULFIDE (CAS 1317-33-5)	A3 Confirmed animal carcinogen with unknown relevance to humans.	
PETROLEUM DISTILLATES, HYDROTREATED HEAVY PARAFFINIC (CAS 64742-54-7)	A4 Not classifiable as a human carcinogen.	
IARC Monographs. Overall Evaluation of Carcinogenicity		
PETROLEUM DISTILLATES, HYDROTREATED HEAVY PARAFFINIC (CAS 64742-54-7)	3 Not classifiable as to carcinogenicity to humans.	
SILICON DIOXIDE (CAS 7631-86-9)	3 Not classifiable as to carcinogenicity to humans.	
Reproductive toxicity	This product is not expected to cause reproductive or developmental effects.	
Specific target organ toxicity - single exposure	Not classified.	
Specific target organ toxicity - repeated exposure	Not classified.	
Aspiration hazard	Not an aspiration hazard.	
Other information	May cause allergic respiratory and skin reactions.	

12. Ecological information

Ecotoxicity	The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.
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.
Hazardous to the ozone layer	No data available.
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.

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	Contract with a disposal operator licensed by the Law on Disposal and Cleaning. Collect and reclaim or dispose in sealed containers at licensed waste disposal site. When your own wastewater treatment plant is not available, collect entire waste and then charge to a licensed industrial waste management professional with manifests for industrial waste.

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14. Transport information

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.

National regulations Follow regulation in section 15 for domestic transportation.

15. Regulatory information

Industrial Safety and Health Act

Notifiable substances

Mineral oil

Table 9 Ordinance No. 168 0.10 - 1.0 %

Labeling substances

Not regulated.

SDS and Risk Assessment

Mineral oil

Poisonous and Deleterious Substances Control Act

Specified poisonous substances

Not regulated.

Poisonous substances

Not regulated.

Deleterious substances

Not regulated.

Act on the Regulation of Manufacture and Evaluation of Chemical Substances

Class I specified chemical substances

Not regulated.

Class II specified chemical substances

Not regulated.

Monitoring chemical substances

Not regulated.

Priority Assessment Chemical Substances (PACs)

Not regulated.

Reporting Exempted Substances

Silicon dioxide

Law concerning Pollutant Release and Transfer Register from April 1, 2023

Specified class 1 substances (substance name, control number and content)

Not regulated.

Class 1 substances (substance name, control number and content)

Molybdenum and its compounds Control No. 453 3.0 % (MOLYBDENUM DISULFIDE)

Class 2 substances (substance name, control number and content)

Not regulated.

Ship Safety Law, Dangerous Goods Marine Transport and Storage Rule

Not regulated.

Air Law, Enforcement Rule

Not regulated.

Explosives Control Act

Not regulated.

Act on Prevention of Marine Pollution and Maritime Disaster

Microsilica slurry

Category: Other Substances

International Inventories

Country(s) or region

Australia

Inventory name

Australian Inventory of Industrial Chemicals (AICIS)

On inventory (yes/no)*

Yes

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Country(s) or region	Inventory name	On inventory (yes/no)*
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	No
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
Taiwan	Taiwan Chemical Substance Inventory (TCSI)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	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).

Provision on the Environmental Administration of New Chemical Substances

SPECIAL CASE

16. Other information

Bibliography

ACGIH Documentation of the Threshold Limit Values and Biological Exposure Indices
HSDB® - Hazardous Substances Data Bank
IARC Monographs. Overall Evaluation of Carcinogenicity
Japan Chemical Industry Association (JCIA) GHS Guideline, June 2019
Japan Society for Occupational Health, Recommendation of Occupational Exposure Limits
JIS Z 7252:2019 Classification of chemicals based on "Globally Harmonized System of Classification and Labelling of Chemicals (GHS)"
JIS Z 7253:2019 Hazard communication of chemicals based on GHS - Labelling and Safety Data Sheet (SDS)
National Toxicology Program (NTP) Report on Carcinogens

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

Hazards identification: Other hazards which do not result in classification
Composition / Information on Ingredients: Ingredients
Exposure controls/personal protection: Eye protection
Other information: Bibliography