

CHEMICAL PRODUCT SAFETY DATA SHEET

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



Product name: SYNTHETIC OIL 181

Issue date: June-30-2011
Revision date: January-15-2025
Version #: 07
SDS No: SYNTHETIC OIL 181

SECTION 1 Chemical product and company identification

Product Name	SYNTHETIC OIL 181	
Product Code	SYNTHETIC OIL 181	
Manufacturer/Supplier	Nye Lubricants, Inc. A Member of the FUCHS Group	
Address	12 Howland Road Fairhaven, MA 02719 United States	
Contact person	Not available.	
Telephone	+1-508-996-6721	
e-mail	sds@fuchs.com	
Emergency telephone number	Americas	+1 760 476 3961
	Europe	+1 760 476 3962
	Asia Pacific	+1 760 476 3960
	Access code	334212

Recommended use and Limitations on use

Recommended use	Lubricating Oil
Issue date	June-30-2011
Revision date	January-15-2025
Supersedes date	February-04-2019

SECTION 2 Hazards identification

Emergency overview	May cause an allergic skin reaction.
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GHS hazard categories

Physical hazards	Not classified.	
Health hazards	Sensitization, skin	Category 1
Environmental hazards	Not classified.	

Label elements

Pictograms



Signal word	Warning
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Hazard statement

H317	May cause an allergic skin reaction.
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Precautionary statement

Prevention

P261	Avoid breathing mist/vapors.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves.

Response

P302 + P352	IF ON SKIN: Wash with plenty of soap and water.
P333 + P313	If skin irritation or rash occurs: Get medical advice/attention.
P362 + P364	Take off contaminated clothing and wash it before reuse.

Safety storage

	Store away from incompatible materials.
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Disposal

P501	Dispose of contents/container in accordance with local/regional/national/international regulations.
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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 an allergic skin reaction. Expected to be a low ingestion hazard. Direct contact with eyes may cause temporary irritation.
Environmental hazards	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.
Supplemental information	None.

SECTION 3 Composition/information on ingredients

Substance/mixture	Mixture		
Chemical name	Concentration (%)	CAS Number	
2,5-呋喃二酮, 二氢-3-(十八烯基)-	< 0.2	28777-98-2	
2,5-FURANDIONE, DIHYDRO-3-(OCTADECENYL)-			
Other components below reportable levels	90 - 100		

SECTION 4 First aid measures

Inhalation	Move to fresh air. Call a physician if symptoms develop or persist.
Skin contact	Remove contaminated clothing immediately and wash skin with soap and water. In case of eczema or other skin disorders: Seek medical attention and take along these instructions.
Eye contact	Rinse with water. Get medical attention if irritation develops and persists.
Ingestion	Rinse mouth. Get medical attention if symptoms occur.
Most important symptoms and health effects	May cause an allergic skin reaction. Dermatitis. Rash.
Personal protection for first-aid responders	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Wash contaminated clothing before reuse.
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 (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	Move containers from fire area if you can do so without risk.
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	Avoid breathing mist/vapors. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.
For emergency responders	Keep unnecessary personnel away. Ensure adequate ventilation. Avoid breathing mist/vapors. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
Environmental precautions	Avoid discharge into drains, water courses or onto the ground.
Clean-up methods and materials and containment measures	Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water.
	Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). 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.

SECTION 7 Handling and storage

Handling	Avoid breathing mist/vapors. Avoid contact with eyes, skin, and clothing. Provide adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.
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Storage	Store in tightly closed container. Store away from incompatible materials (see Section 10 of the SDS). Storage class (TRGS 510): 10 (Combustible liquids that cannot be assigned to any of the above storage classes)
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SECTION 8 Exposure controls/personal protection

Exposure limits

No exposure limits noted for ingredient(s).

Biological limit values

No biological exposure limits noted for the ingredient(s).

Monitoring methods

Follow standard monitoring procedures.

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). Face shield is recommended.

Skin and body protection

Wear appropriate chemical resistant clothing. Use of an impervious apron is recommended.



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. Contaminated work clothing should not be allowed out of the workplace.

SECTION 9 Physical and chemical properties

Appearance

Physical state

Liquid.

Form

Liquid.

Color

Light yellow.

Odor

Not available.

pH

Not available.

Melting point/freezing point

Not available.

Boiling point, initial boiling point, and boiling range

Not available.

Flash point

464.0 °F (240.0 °C) ASTM D-92

Explosive limit - lower (%)

Not available.

Explosive limit - upper (%)

Not available.

Vapor pressure

Not available.

Vapor density

Not available.

Relative density

Not available.

Density

1.16 g/cm³

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 applicable.

Other data

Explosive properties

Not explosive.

Kinematic viscosity

52 cSt

Kinematic viscosity temp	104 °F (40 °C)
Oxidizing properties	Not oxidizing.
Pour point	-68.8 °F (-56 °C) ASTM D-97
Shelf life	4 years

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.
Symptoms	May cause an allergic skin reaction. Dermatitis. Rash.
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 sensitizer	May cause an allergic skin reaction.
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	Not classified.
Specific target organ toxicity following repeated exposure	Not classified.
Aspiration hazard	Not an aspiration hazard.
Chronic effects	Not available.

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

SECTION 14 Transport information

CNDG	Not regulated as dangerous goods.
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IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

Transport in bulk according to Not established.**Annex II of MARPOL 73/78 and
the IBC Code****SECTION 15 Regulatory information****Law of the People's Republic of China on Prevention and Control of Occupational Diseases**

Not regulated.

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)

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

This document has undergone significant changes and should be reviewed in its entirety.