



Super Lube® Fire Resistant Hydraulic Fluid

Safety Data Sheet

SDS EU format according to COMMISSION REGULATION (EU) 2020/878
Issue date: 4/1/2024 Revision date: 9/18/2024 Supersedes version of: 4/1/2024 Version: 1.0

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product form : Mixture
Trade name : Super Lube® Fire Resistant Hydraulic Fluid

1.2. Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses

Use of the substance/mixture : Hydraulic fluids and additives

Uses advised against

Restrictions on use : None known

1.3. Details of the supplier of the safety data sheet

Kano Laboratories, LLC
24 DaVinci Drive, P.O. Box 405
Bohemia, NY 11716, USA
T +1 (631) 567-5300
www.super-lube.com

1.4. Emergency telephone number

Emergency number : ChemTel 1-800 255-3924 (US/Canada), 1-813-248-0585 (International), 1-300-954-583 (Australia), 0-800-591-6042 (Brazil), 400-120-0751 (China), 000-800-188-4086 (India), 800-099-0731 (Mexico)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Acute toxicity (oral), Category 4 H302
Skin corrosion/irritation, Category 2 H315
Serious eye damage/eye irritation, Category 1 H318
Full text of H- and EUH-statements: see section 16

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP) :



GHS05

GHS07

Signal word (CLP) :

Danger

Contains :

Diethylene glycol; 2-dimethylaminoethanol; N,N-dimethylethanolamine; Oxirane, 2-methyl-, polymer with oxirane, ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1)

Hazard statements (CLP) :

H302 - Harmful if swallowed.
H315 - Causes skin irritation.
H318 - Causes serious eye damage.

Precautionary statements (CLP) :

P264 - Wash hands thoroughly after handling.
P270 - Do not eat, drink or smoke when using this product.
P280 - Wear eye protection, protective clothing, protective gloves.
P301+P312 - IF SWALLOWED: Call a POISON CENTER, a doctor if you feel unwell.
P330 - Rinse mouth.

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P302+P352 - IF ON SKIN: Wash with plenty of water.
P332+P313 - If skin irritation occurs: Get medical advice/attention.
P362+P364 - Take off contaminated clothing and wash it before reuse.
P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 - Immediately call a POISON CENTER, a doctor.
P501 - Dispose of contents/container to to an approved waste disposal plant.

2.3. Other hazards

Other hazards which do not result in classification : None known.

Contains no PBT and/or vPvB substances $\geq 0.1\%$ assessed in accordance with REACH Annex XIII

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or substance(s) are not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Diethylene glycol	CAS-No.: 111-46-6 EC-No.: 203-872-2 EC Index-No.: 603-140-00-6	25 – 50	Acute Tox. 4 (Oral), H302 (ATE=500 mg/kg bodyweight)
Oxirane, 2-methyl-, polymer with oxirane, ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1)	CAS-No.: 52624-57-4	10 – 25	Eye Dam. 1, H318
2-dimethylaminoethanol; N,N-dimethylethanolamine	CAS-No.: 108-01-0 EC-No.: 203-542-8 EC Index-No.: 603-047-00-0	≤ 3	Flam. Liq. 3, H226 Acute Tox. 4 (Inhalation), H332 (ATE=11 mg/l/4h) Acute Tox. 4 (Dermal), H312 (ATE=1100 mg/kg bodyweight) Acute Tox. 4 (Oral), H302 (ATE=500 mg/kg bodyweight) Skin Corr. 1B, H314
Decanoic acid	CAS-No.: 334-48-5 EC-No.: 206-376-4 EC Index-No.: 607-709-00-X	≤ 3	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Aquatic Chronic 3, H412

Specific concentration limits:

Name	Product identifier	Specific concentration limits (%)
2-dimethylaminoethanol; N,N-dimethylethanolamine	CAS-No.: 108-01-0 EC-No.: 203-542-8 EC Index-No.: 603-047-00-0	(5 \leq C \leq 100) STOT SE 3; H335

Full text of H- and EUH-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : Call a poison center or a doctor if you feel unwell.
First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. Call a poison center or a doctor if you feel unwell.

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First-aid measures after skin contact	: Wash skin with plenty of water and soap. Take off contaminated clothing and wash it before reuse. If skin irritation occurs: Get medical advice/attention.
First-aid measures after eye contact	: Remove contact lenses, if present and easy to do. Continue rinsing. Rinse immediately with plenty of water for 15 minutes. Immediately call a POISON CENTER/doctor.
First-aid measures after ingestion	: Do NOT induce vomiting unless directed to do so by medical personnel. Call a poison center or a doctor if you feel unwell.

4.2. Most important symptoms and effects, both acute and delayed

Inhalation	: May cause irritation to the respiratory tract.
Skin	: Causes skin irritation.
Eyes	: Causes serious eye damage.
Ingestion	: Harmful if swallowed. Ingestion may cause nausea, vomiting and diarrhea.
Chronic symptoms	: None known.

4.3. Indication of any immediate medical attention and special treatment needed

Immediate medical attention is required for eye contact.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	: Foam. Carbon dioxide. Use water spray or fog. Dry chemical.
Unsuitable extinguishing media	: Do not use a solid water stream as it may scatter and spread fire.

5.2. Special hazards arising from the substance or mixture

Fire hazard	: This product is not classified as flammable or combustible. Could burn but does not ignite readily.
Hazardous decomposition products in case of fire	: On combustion, forms: carbon oxides (CO and CO ₂). Nitrogen oxides.

5.3. Advice for firefighters

Firefighting instructions	: Cool down the containers exposed to heat with a water spray.
Protection during firefighting	: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures	: Avoid contact with eyes, skin and clothing.
For non-emergency personnel	
Emergency procedures	: Keep unnecessary and unprotected personnel away from the spillage.
For emergency responders	
Protective equipment	: Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

For containment	: Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.
Methods for cleaning up	: Absorb with an inert material and place in an appropriate waste disposal container. Notify authorities if product enters sewers or public waters.
Other information	: Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 13.

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SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Precautions for safe handling : Keep container closed when not in use. Avoid contact with skin. Do not get in eyes. Wash thoroughly after handling. Remove contaminated clothing immediately.
- Hygiene measures : Wash contaminated clothing before reuse. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

- Storage conditions : Store in a well-ventilated place. Keep cool. Keep container tightly closed.
- Incompatible materials : Strong oxidizers.

7.3. Specific end use(s)

Hydraulic Fluids.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No additional information available

8.2. Exposure controls

Appropriate engineering controls

Appropriate engineering controls:

Ensure good ventilation of the work station.

Personal protection equipment

Eye and face protection

Eye protection:

Chemical goggles. Use eye protection according to EN 166.

Skin protection

Skin and body protection:

Wear suitable protective clothing

Hand protection:

Chemical resistant gloves (according to European standard ISO 374-1 or equivalent). Consult glove manufacturer's product information on material suitability and material thickness.

Respiratory protection

Respiratory protection:

Not required for normal conditions of use

Environmental exposure controls

Environmental exposure controls:

Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

- Physical state : Liquid
- Colour : Red. Orange.
- Appearance : Liquid.
- Odour : Mild odour.
- Odour threshold : Not available
- Melting point : Not available
- Freezing point : Not available
- Boiling point : Not available
- Flammability : Not applicable

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Explosive properties	: None.
Oxidising properties	: None.
Lower explosion limit	: Not available
Upper explosion limit	: Not available
Flash point	: > 100 °C (212°F)
Auto-ignition temperature	: Not available
Decomposition temperature	: Not available
pH	: 8 – 10
Viscosity, kinematic	: 40 – 46 mm ² /s @(100°F)
Solubility	: Soluble in water.
Partition coefficient n-octanol/water (Log Kow)	: Not available
Vapour pressure	: Not available
Vapour pressure at 50°C	: Not available
Density	: Not available
Relative density	: 1
Relative vapour density at 20°C	: Not available
Particle characteristics	: Not applicable

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No dangerous reactions known under normal conditions of use.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

Keep away from open flames, hot surfaces and sources of ignition.

10.5. Incompatible materials

Strong oxidizing agents. Strong acids.

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity (oral)	: Based on available data, the classification criteria are not met
Acute toxicity (dermal)	: Based on available data, the classification criteria are not met
Acute toxicity (inhalation)	: Based on available data, the classification criteria are not met

Super Lube® Fire Resistant Hydraulic Fluid	
ATE CLP (oral)	943.396 mg/kg bodyweight
Diethylene glycol (111-46-6)	
LD50 oral rat	16500 mg/kg
LD50 oral	500 mg/kg (Converted acute toxicity point estimate)
LD50 dermal rabbit	13300 mg/kg

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Diethylene glycol (111-46-6)	
LC50 Inhalation - Rat (Dust/Mist)	> 4.6 mg/l/4h No deaths occurred at this concentration
Decanoic acid (334-48-5)	
LD50 oral rat	> 2000 mg/kg
LD50 dermal rat	> 2000 mg/kg
Oxirane, 2-methyl-, polymer with oxirane, ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1) (52624-57-4)	
LD50 oral rat	> 2000 mg/kg

Skin corrosion/irritation	: Causes skin irritation. pH: 8 – 10
Serious eye damage/irritation	: Causes serious eye damage. pH: 8 – 10
Respiratory or skin sensitisation	: Not classified (Based on available data, the classification criteria are not met)
Germ cell mutagenicity	: Based on available data, the classification criteria are not met
Carcinogenicity	: Based on available data, the classification criteria are not met

Diethylene glycol (111-46-6)	
NOAEL (chronic, oral, animal/male, 2 years)	1210 mg/kg bodyweight
NOAEL (chronic, oral, animal/female, 2 years)	1160 mg/kg bodyweight
Reproductive toxicity	: Based on available data, the classification criteria are not met
STOT-single exposure	: Not classified (Based on available data, the classification criteria are not met)
STOT-repeated exposure	: Based on available data, the classification criteria are not met

Diethylene glycol (111-46-6)	
LOAEL (oral, rat, 90 days)	40000 mg/kg bodyweight
NOAEL (oral, rat, 90 days)	936 mg/kg bodyweight/day
Aspiration hazard	: Not classified (Based on available data, the classification criteria are not met)

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Viscosity, kinematic	40 – 46 mm ² /s @ (100°F)
Hydrocarbon	Yes

Diethylene glycol (111-46-6)	
Viscosity, kinematic	26833631.485 mm ² /s

2-dimethylaminoethanol; N,N-dimethylethanolamine (108-01-0)	
Viscosity, kinematic	4.027 mm ² /s

Decanoic acid (334-48-5)	
Viscosity, kinematic	6 mm ² /s Temp.: '40°C' Parameter: 'kinematic viscosity (in mm ² /s)'

11.2. Information on other hazards

Endocrine disrupting properties

Adverse health effects caused by endocrine disrupting properties	: None known
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SECTION 12: Ecological information

12.1. Toxicity

Hazardous to the aquatic environment, short-term (acute)	: Not classified (Based on available data, the classification criteria are not met)
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Hazardous to the aquatic environment, long-term (chronic) : Not classified (Based on available data, the classification criteria are not met)

Diethylene glycol (111-46-6)	
LC50 - Fish [1]	75200 mg/l Pimephales promelas (Fathead minnow)
EC50 - Crustacea [1]	62630 mg/l Daphnia magna (Water flea)
EC50 96h - Algae [1]	6500 – 13000 mg/l Pseudokirchneriella subcapitata
2-dimethylaminoethanol; N,N-dimethylethanolamine (108-01-0)	
LC50 - Fish [1]	146.63 mg/l Test organisms (species): Leuciscus idus
EC50 - Crustacea [1]	98.37 mg/l Test organisms (species): Daphnia magna
EC50 72h - Algae [1]	66.08 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)
Decanoic acid (334-48-5)	
LC50 - Fish [1]	18.9 mg/l Lepomis macrochirus (Bluegill)
EC50 - Crustacea [1]	> 21 mg/l Daphnia magna (Water flea)
EC50 - Crustacea [2]	41 mg/l
EC50 72h - Algae [1]	15 mg/l Raphidocelis subcapitata
LOEC (chronic)	0.64 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
NOEC (chronic)	0.2 mg/l Daphnia magna (Water flea)
NOEC chronic fish	6.4 mg/l Danio rerio (Zebrafish)
Oxirane, 2-methyl-, polymer with oxirane, ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1) (52624-57-4)	
LC50 - Fish [1]	> 10000 mg/l

12.2. Persistence and degradability

Super Lube® Fire Resistant Hydraulic Fluid	
Persistence and degradability	No additional information available.
Diethylene glycol (111-46-6)	
Persistence and degradability	Readily biodegradable.
2-dimethylaminoethanol; N,N-dimethylethanolamine (108-01-0)	
Persistence and degradability	Rapidly degradable
Decanoic acid (334-48-5)	
Persistence and degradability	Readily biodegradable.
Oxirane, 2-methyl-, polymer with oxirane, ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1) (52624-57-4)	
Persistence and degradability	Not readily biodegradable.

12.3. Bioaccumulative potential

Diethylene glycol (111-46-6)	
Partition coefficient n-octanol/water (Log Kow)	1.5

12.4. Mobility in soil

No additional information available

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12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Endocrine disrupting properties

Adverse effects on the environment caused by endocrine disrupting properties : None known.

12.7. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods : Dispose in a safe manner in accordance with local/national regulations.
Additional information : Flammable vapours may accumulate in the container.

SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / ADN / RID

ADR	IMDG	IATA	ADN	RID
14.1. UN number or ID number				
Not regulated for transport				
14.2. UN proper shipping name				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
14.3. Transport hazard class(es)				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
14.4. Packing group				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
14.5. Environmental hazards				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
Note: Inner packages containing net quantities of less than 5 kg/5 L are exempt per IMDG Code 2.10.2.7 and ICAO Special Provision A197.				

14.6. Special precautions for user

Overland transport

Not regulated

Transport by sea

Not regulated

Air transport

Not regulated

Inland waterway transport

Not regulated

Rail transport

Not regulated

14.7. Maritime transport in bulk according to IMO instruments

Not applicable

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SECTION 15: Regulatory information

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

EU-Regulations

REACH Annex XVII (Restriction List)

Contains no substance(s) listed on REACH Annex XVII (Restriction Conditions)

REACH Annex XIV (Authorisation List)

Contains no substance(s) listed on REACH Annex XIV (Authorisation List)

REACH Candidate List (SVHC)

Contains no substance(s) listed on the REACH Candidate List

PIC Regulation (Prior Informed Consent)

Contains no substance(s) listed on the PIC list (Regulation EU 649/2012 concerning the export and import of hazardous chemicals)

POP Regulation (Persistent Organic Pollutants)

Contains no substance(s) listed on the POP list (Regulation EU 2019/1021 on persistent organic pollutants)

Ozone Regulation (1005/2009)

Contains no substance(s) listed on the Ozone Depletion list (Regulation EU 1005/2009 on substances that deplete the ozone layer)

Council Regulation (EC) for the control of dual-use items

Contains no substance subject to the COUNCIL REGULATION (EC) for the control of dual-use items

Explosives Precursors Regulation (2019/1148)

Contains no substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors)

Drug Precursors Regulation (273/2004)

Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances)

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Abbreviations and acronyms:	
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute Toxicity Estimate
BCF	Bioconcentration factor
BLV	Biological limit value
BOD	Biochemical oxygen demand (BOD)
COD	Chemical oxygen demand (COD)
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
EC-No.	European Community number
EC50	Median effective concentration
EN	European Standard
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association

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Abbreviations and acronyms:	
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration
LD50	Median lethal dose
LOAEL	Lowest Observed Adverse Effect Level
NOAEC	No-Observed Adverse Effect Concentration
NOAEL	No-Observed Adverse Effect Level
NOEC	No-Observed Effect Concentration
OECD	Organisation for Economic Co-operation and Development
OEL	Occupational Exposure Limit
PBT	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS	Safety Data Sheet
STP	Sewage treatment plant
ThOD	Theoretical oxygen demand (ThOD)
TLM	Median Tolerance Limit
VOC	Volatile Organic Compounds
CAS-No.	Chemical Abstract Service number
N.O.S.	Not Otherwise Specified
vPvB	Very Persistent and Very Bioaccumulative
ED	Endocrine disruptor

Full text of H- and EUH-statements:	
Acute Tox. 4 (Dermal)	Acute toxicity (dermal), Category 4
Acute Tox. 4 (Inhalation)	Acute toxicity (inhal.), Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aquatic Chronic 3	Hazardous to the aquatic environment – Chronic Hazard, Category 3
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Flam. Liq. 3	Flammable liquids, Category 3
H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.

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Full text of H- and EUH-statements:

H412	Harmful to aquatic life with long lasting effects.
Skin Corr. 1B	Skin corrosion/irritation, Category 1, Sub-Category 1B
Skin Irrit. 2	Skin corrosion/irritation, Category 2
STOT SE 3	Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

Acute Tox. 4 (Oral)	H302	Calculation method
Skin Irrit. 2	H315	Expert judgement
Eye Dam. 1	H318	Calculation method

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This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.