

# SAFETY DATA SHEET

## 1. Identification

<b>Product identifier</b>	HYKOGREEN 413 M2
<b>Other means of identification</b>	No data available.
<b>Recommended use:</b>	Metalworking fluid
<b>Restrictions on use:</b>	Industrial use only

### Manufacturer/Importer/Distributor Information

#### Manufacturer

Company Name: Fuchs Lubricants Co.  
Address: 17050 Lathrop Avenue  
Harvey, Illinois 60426  
Telephone: 708-333-8900  
Fax: 708-333-9180

Contact Person: EHS Department  
E-mail: sds@fuchsus.com

Canadian Distributor  
Company Name: FUCHS LUBRICANTS CANADA LTD.  
Address: 405 Dobbie Drive  
Cambridge, ON N1T 1S8  
Telephone: 519-622-2040  
Fax: 519-622-2220  
Contact Person: Technical Services Department  
Emergency telephone number: 519-622-2040 (Bus. hrs)  
CANUTEC 1-888-226-8832 (24 hrs)

**Emergency telephone number:** 708-333-8900 (Bus. hrs) 800-255-3924 (24 hrs)

## 2. Hazard identification

### Hazard Classification

#### Health Hazards

Carcinogenicity Category 1A

#### Unknown toxicity - Health

Acute toxicity, oral	1.98 %
Acute toxicity, dermal	1.98 %
Acute toxicity, inhalation, vapor	68.25 %
Acute toxicity, inhalation, dust or mist	68.25 %

% of the mixture consists of an ingredient or ingredients of unknown acute toxicity

### Label Elements

#### Hazard Symbol:



**Signal Word:** Danger

**Hazard Statement:** May cause cancer.

**Precautionary Statements**

**Prevention:** Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves/protective clothing/eye protection/face protection.

**Response:** IF exposed or concerned: Get medical advice/attention.

**Storage:** Store locked up.

**Disposal:** Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

**Other hazards which do not result in GHS classification:** None.

### 3. Composition/information on ingredients

#### Mixtures

Chemical Identity	Common name and synonyms	CAS number	Content in percent (%)*
Distillates (petroleum), hydrotreated heavy naphthenic	Mineral oil,	64742-52-5	36.9579%
Mineral oil		64742-53-6	31.7505%
Graphite	Graphite,	7782-42-5	29.175%
Calcium stearate	Inorganic stearate,	1592-23-0	1.091%
Crystalline silica	Crystalline silica,	14808-60-7	0.825%
Glycerin		56-81-5	0.1049%

\* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

### 4. First-aid measures

**Ingestion:** Rinse mouth thoroughly. Call a POISON CENTRE/doctor if you feel unwell. Do NOT induce vomiting.

**Inhalation:** Move to fresh air. Call a POISON CENTRE/doctor if you feel unwell.

**Skin Contact:** Remove contaminated clothing and shoes. Wash contact areas with soap and water. If skin irritation occurs: Get medical advice/attention.

**Eye contact:** Flush thoroughly with water. If irritation occurs, get medical assistance. Continue to rinse for at least 15 minutes.

### Most important symptoms/effects, acute and delayed

**Symptoms:** No data available.

**Hazards:** No data available.

### Indication of immediate medical attention and special treatment needed

**Treatment:** Symptoms may be delayed.

## 5. Fire-fighting measures

**General Fire Hazards:** No unusual fire or explosion hazards noted.

### Suitable (and unsuitable) extinguishing media

**Suitable extinguishing media:** Water spray, fog, CO<sub>2</sub>, dry chemical, or regular foam. Use fire-extinguishing media appropriate for surrounding materials.

**Unsuitable extinguishing media:** Do not use water jet as an extinguisher, as this will spread the fire.

**Specific hazards arising from the chemical:** Heat may cause the containers to explode. During fire, gases hazardous to health may be formed.

### Special protective equipment and precautions for firefighters

**Special fire fighting procedures:** No data available.

**Special protective equipment for fire-fighters:** Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.

## 6. Accidental release measures

**Personal precautions, protective equipment and emergency procedures:** See Section 8 of the SDS for Personal Protective Equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep unauthorized personnel away. Ensure adequate ventilation.

**Methods and material for containment and cleaning up:** Absorb with sand or other inert absorbent. Stop the flow of material, if this is without risk.

**Environmental Precautions:** Avoid release to the environment. Do not contaminate water sources or sewer. Prevent further leakage or spillage if safe to do so.

## 7. Handling and storage

- Precautions for safe handling:** End-users should follow industry best practices for handling and using this product.
- Guidance may be found using the current version of ASTM Standard E1497-05: Standard Practice for Selection and Safe Use of Water-Miscible and Straight Oil Metal Removal Fluids Contains amines. Do not add sodium nitrite or other nitrosating agents which may form cancer causing nitrosamines. Do not handle until all safety precautions have been read and understood. Obtain special instructions before use. Use personal protective equipment as required.
- Conditions for safe storage, including any incompatibilities:** Store locked up.

## 8. Exposure controls/personal protection

### Control Parameters

#### Occupational Exposure Limits

Chemical Identity	Type	Exposure Limit Values	Source
Distillates (petroleum), hydrotreated heavy naphthenic - Mist.	TWA	5 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (11 2011)
	STEL	10 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (11 2011)
Distillates (petroleum), hydrotreated heavy naphthenic - Mist.	TWA	1 mg/m3	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (05 2013)
Distillates (petroleum), hydrotreated heavy naphthenic - Inhalable fraction.	TWA	5 mg/m3	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (06 2015)
Mineral oil - Mist.	TWA	5 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (11 2011)
	STEL	10 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (11 2011)
Mineral oil - Mist.	TWA	1 mg/m3	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (05 2013)
Mineral oil - Inhalable fraction.	TWA	5 mg/m3	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (06 2015)
	TWA	5 mg/m3	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (06 2015)

Graphite - Respirable.	TWA	2 mg/m3	Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2) (07 2009)
Graphite - Respirable.	TWA	2 mg/m3	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (09 2011)
Graphite - Respirable fraction.	TWA	2 mg/m3	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)
Graphite - Respirable fraction.	8 HR ACL	2 mg/m3	Canada. Saskatchewan OELs (Occupational Health and Safety Regulations, 1996, Table 21) (05 2009)
	15 MIN ACL	4 mg/m3	Canada. Saskatchewan OELs (Occupational Health and Safety Regulations, 1996, Table 21) (05 2009)
Graphite - Respirable dust.	TWA	2 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (11 2011)
Graphite - Respirable fraction.	TWA	2 mg/m3	US. ACGIH Threshold Limit Values (03 2012)
Calcium stearate	TWA	10 mg/m3	Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2) (07 2009)
Calcium stearate	TWA	10 mg/m3	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (09 2011)
Calcium stearate	TWA	10 mg/m3	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)
Calcium stearate	8 HR ACL	10 mg/m3	Canada. Saskatchewan OELs (Occupational Health and Safety Regulations, 1996, Table 21) (05 2009)
	15 MIN ACL	20 mg/m3	Canada. Saskatchewan OELs (Occupational Health and Safety Regulations, 1996, Table 21) (05 2009)
Calcium stearate - Inhalable fraction.	TWA	10 mg/m3	US. ACGIH Threshold Limit Values (03 2017)
Calcium stearate - Respirable fraction.	TWA	3 mg/m3	US. ACGIH Threshold Limit Values (03 2017)
Crystalline silica - Respirable particles.	TWA	0.025 mg/m3	Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2) (07 2009)
Crystalline silica - Respirable fraction.	TWA	0.025 mg/m3	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (09 2011)
Crystalline silica - Respirable fraction.	8 HR ACL	0.05 mg/m3	Canada. Saskatchewan OELs (Occupational Health and Safety Regulations, 1996, Table 21) (05 2009)
Crystalline silica - Respirable dust.	TWA	0.1 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (11 2011)
Crystalline silica - Respirable fraction.	TWA	0.10 mg/m3	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (06 2015)
Crystalline silica - Respirable fraction.	TWA	0.025 mg/m3	US. ACGIH Threshold Limit Values (03 2012)
Glycerin - Mist.	TWA	10 mg/m3	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (09 2011)
Glycerin - Respirable mist.	TWA	3 mg/m3	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (09 2011)
Glycerin - Mist.	TWA	10 mg/m3	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)
Glycerin - Mist.	TWA	10 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (11 2011)

**Appropriate Engineering Controls** No data available.

**Individual protection measures, such as personal protective equipment**

**General information:** Use personal protective equipment as required.

**Eye/face protection:** Wear safety glasses with side shields (or goggles).

**Skin Protection**

**Hand Protection:** No data available.

**Other:** Wear chemical-resistant gloves, footwear, and protective clothing appropriate for the risk of exposure. Contact health and safety professional or manufacturer for specific information.

**Respiratory Protection:** In case of inadequate ventilation use suitable respirator. Seek advice from supervisor on the company's respiratory protection standards.

**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 to remove contaminants. Discard contaminated footwear that cannot be cleaned.

## 9. Physical and chemical properties

### Appearance

**Physical state:** Liquid

**Form:** No data available.

**Color:** Black

**Odor:** Mild petroleum/solvent

**Odor threshold:** No data available.

**pH:** No data available.

**Melting point/freezing point:** No data available.

**Initial boiling point and boiling range:** No data available.

**Flash Point:** 226.67 °C

**Evaporation rate:** No data available.

**Flammability (solid, gas):** No data available.

### Upper/lower limit on flammability or explosive limits

**Flammability limit - upper (%):** No data available.

**Flammability limit - lower (%):** No data available.

**Explosive limit - upper (%):** No data available.

**Explosive limit - lower (%):** No data available.

**Vapor pressure:** No data available.

**Vapor density:** No data available.

**Density:** No data available.

**Relative density:** 1.1

### Solubility(ies)

**Solubility in water:** Insoluble

<b>Solubility (other):</b>	No data available.
<b>Partition coefficient (n-octanol/water):</b>	No data available.
<b>Auto-ignition temperature:</b>	No data available.
<b>Decomposition temperature:</b>	No data available.
<b>Viscosity:</b>	> 22 mm <sup>2</sup> /s (40 °C, Measured)

## 10. Stability and reactivity

<b>Reactivity:</b>	Not reactive during normal use.
<b>Chemical Stability:</b>	Material is stable under normal conditions.
<b>Possibility of hazardous reactions:</b>	None under normal conditions.
<b>Conditions to avoid:</b>	Avoid heat or contamination.
<b>Incompatible Materials:</b>	No data available.
<b>Hazardous Decomposition Products:</b>	Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapors.

## 11. Toxicological information

### Information on likely routes of exposure

<b>Inhalation:</b>	Inhalation is the primary route of exposure. In high concentrations, vapors, fumes or mists may irritate nose, throat and mucus membranes.
<b>Skin Contact:</b>	Prolonged skin contact may cause redness and irritation.
<b>Eye contact:</b>	Eye contact is possible and should be avoided.
<b>Ingestion:</b>	May be ingested by accident. Ingestion may cause irritation and malaise.

### Symptoms related to the physical, chemical and toxicological characteristics

<b>Inhalation:</b>	No data available.
<b>Skin Contact:</b>	No data available.
<b>Eye contact:</b>	No data available.
<b>Ingestion:</b>	No data available.

### Information on toxicological effects

#### Acute toxicity (list all possible routes of exposure)

<b>Oral Product:</b>	Not classified for acute toxicity based on available data.
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#### **Dermal**

##### **Product:**

Not classified for acute toxicity based on available data.

#### **Inhalation**

##### **Product:**

Not classified for acute toxicity based on available data.

#### **Delayed and immediate effects, including chronic effects from short- and long-term exposure**

##### **Product:**

No data available.

#### **Skin Corrosion/Irritation**

##### **Product:**

No data available.

#### **Serious Eye Damage/Eye Irritation**

##### **Product:**

No data available.

#### **Respiratory or Skin Sensitization**

##### **Product:**

No data available.

#### **Carcinogenicity**

##### **Product:**

No data available.

#### **IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:**

Crystalline silica

Overall evaluation: 1. Carcinogenic to humans.

#### **US. National Toxicology Program (NTP) Report on Carcinogens:**

Crystalline silica

Hazard Designation: Known To Be Human Carcinogen. Year first listed as Known carcinogen: 2000.

#### **ACGIH Carcinogen List:**

Crystalline silica

Group A2: Suspected human carcinogen.

#### **Germ Cell Mutagenicity**

##### **In vitro**

##### **Product:**

No data available.

##### **In vivo**

##### **Product:**

No data available.

#### **Reproductive toxicity**

##### **Product:**

No data available.

#### **Specific Target Organ Toxicity - Single Exposure**

##### **Product:**

No data available.

#### **Specific Target Organ Toxicity - Repeated Exposure**

##### **Product:**

No data available.

#### **Aspiration Hazard**



**Product:** No data available.

**Other effects:** No data available.

## 12. Ecological information

### Ecotoxicity:

#### Acute hazards to the aquatic environment:

##### Fish

**Product:** No data available.

##### Aquatic Invertebrates

**Product:** No data available.

#### Chronic hazards to the aquatic environment:

##### Fish

**Product:** No data available.

##### Aquatic Invertebrates

**Product:** No data available.

#### Toxicity to Aquatic Plants

**Product:** No data available.

### Persistence and Degradability

#### Biodegradation

**Product:** No data available.

#### BOD/COD Ratio

**Product:** No data available.

### Bioaccumulative potential

#### Bioconcentration Factor (BCF)

**Product:** No data available.

#### Partition Coefficient n-octanol / water (log Kow)

**Product:** No data available.

**Mobility in soil:** No data available.

**Other adverse effects:** No data available.

## 13. Disposal considerations

**Disposal instructions:** Discharge, treatment, or disposal may be subject to national, state, or local laws. Dispose of waste at an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal. It is the responsibility of the product user or owner to determine at the time of disposal, which waste regulations must be applied.

**Contaminated Packaging:** Empty containers should be taken to an approved waste handling site for recycling or disposal.

#### 14. Transport information

**TDG**  
Not regulated.

**IMDG**  
Not regulated.

**IATA**  
Not regulated.

#### 15. Regulatory information

**Canada Federal Regulations**  
**List of Toxic Substances (CEPA, Schedule 1)**  
Not Regulated

**Export Control List (CEPA 1999, Schedule 3)**  
Not Regulated

**National Pollutant Release Inventory (NPRI)**  
**Canada. National Pollutant Release Inventory (NPRI) Substances, Part 5, VOCs with Additional Reporting Requirements**  
NPRI PT5 Not Regulated

**Canada. Canadian Environmental Protection Act (CEPA). National Pollutant Release Inventory (NPRI) (Parts 1-4)**  
NPRI Not Regulated

**Greenhouse Gases**  
Not Regulated

#### 16. Other information, including date of preparation or last revision

**Issue Date:** 03/05/2018

**Revision Date:** 03/05/2018

**Version #:** 1.0

**Further Information:** No data available.

**Disclaimer:**

This information is provided without warranty. The information is believed to be correct. This information should be used to make an independent determination of the methods to safeguard workers and the environment.