



HOUGHTON

# SAFETY DATA SHEET

Revision Date: 03-02-2015

Version 1

## SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

### 1.1. Product identifier

**Product Code(s):** 41042112-M  
**Product Name** GARIA 421 CM-12

**Recommended use** Metalworking fluid  
**Uses advised against** Any other purpose.

### **Manufacturer, Importer, Supplier**

Houghton International Inc.  
Madison & Van Buren Aves.  
Valley Forge, PA 19482  
Telephone: 610-666-4000 FAX: 610-666-1376  
Website: www.houghtonintl.com  
Customer Service: 888-459-9844

Houghton Canada  
915 Meyerside Drive  
Mississauga  
ON L5T 1R8

### Emergency telephone number

3E Company 1-866-519-4752 (USA, Canada, Mexico)  
Company Access Code: 333938

## SECTION 2: HAZARDS IDENTIFICATION

### Classification

This chemical is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.122)

Not classified

### GHS Label elements, including precautionary statements

The product contains no substances which at their given concentration, are considered to be hazardous to health

### **Precautionary Statements**

### **Precautionary Statements - Response**

### Hazards not otherwise classified (HNOC)

Not applicable

### Other information

Not applicable

### SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

This product is a mixture. Health hazard information is based on its ingredients.

Chemical Name	CAS-No	Weight %
Highly refined, low viscosity mineral oils/hydrocarbons (Viscosity >7 - <20.5 cSt @40°C)	-	60% - 100%
Highly refined, low viscosity base oil (Viscosity <7 cSt @40°C)	-	10% - 25%
Highly refined base oil (Viscosity >20.5 cSt @40°C)	-	1% - 2.5%

#### Additional information

Product containing mineral oil with less than 3% DMSO extract as measured by IP 346. See Section 15 for additional information on base oils.

### SECTION 4: FIRST AID MEASURES

#### 4.1. Description of first-aid measures

<b>General advice</b>	If symptoms persist, call a physician.
<b>Inhalation</b>	Move to fresh air.
<b>Skin contact</b>	Wash off immediately with soap and plenty of water. Remove and wash contaminated clothing before re-use.
<b>Eye contact</b>	Rinse thoroughly with plenty of water, also under the eyelids. Keep eye wide open while rinsing.
<b>Ingestion</b>	Clean mouth with water and afterwards drink plenty of water. Do not induce vomiting without medical advice.
<b>Protection of First-aiders</b>	Use personal protective equipment.

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

**Main Symptoms** None

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

**Notes to physician** Treat symptomatically.

### SECTION 5: FIRE FIGHTING MEASURES

#### 5.1. Extinguishing media

##### Suitable Extinguishing Media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment; Use CO<sub>2</sub>, dry chemical, or foam, Water spray or fog, Cool containers / tanks with water spray

##### Extinguishing media which shall not be used for safety reasons

Do not use a solid water stream as it may scatter and spread fire

#### 5.2. Special hazards arising from the substance or mixture

##### Special Hazard

In the event of fire and/or explosion do not breathe fumes. Carbon monoxide, carbon dioxide and unburned hydrocarbons (smoke). Thermal decomposition can lead to release of irritating gases and vapors.

##### Hazardous Decomposition Products

Incomplete combustion and thermolysis produces potentially toxic gases such as carbon monoxide and carbon dioxide

**5.3. Advice for firefighters****Special protective equipment for fire-fighters**

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear

**SECTION 6: ACCIDENTAL RELEASE MEASURES****6.1. Personal precautions, protective equipment and emergency procedures**

Remove all sources of ignition. Ensure adequate ventilation.

**Advice for non-emergency personnel**                      Material can create slippery conditions.

**Advice for emergency responders**    For personal protection see section 8.

**6.2. Environmental precautions**

Prevent further leakage or spillage if safe to do so. Do not flush into surface water or sanitary sewer system.

**6.3. Methods and materials for containment and cleaning up**

After cleaning, flush away traces with water.

**6.4. Reference to other sections**

See Section 8/12/13 for additional information

**SECTION 7: HANDLING AND STORAGE****7.1. Precautions for safe handling**

Ensure adequate ventilation. Do not eat, drink or smoke when using this product. Handle in accordance with good industrial hygiene and safety practice. Keep away from open flames, hot surfaces and sources of ignition.

**7.2. Conditions for safe storage, including any incompatibilities****Technical measures/Storage conditions**

Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from open flames, hot surfaces and sources of ignition.

**Recommended Shelf Life**

No information available.

**Incompatible Materials**

Strong oxidizing agents, Strong acids, Strong bases

**7.3. Specific end uses**

**Specific use(s)**                                      Metalworking fluid

**SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION****Control parameters****Exposure Guidelines**

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH	AIHA WEEL
Highly refined, low viscosity mineral oils/hydrocarbons (Viscosity >7 - <20.5 cSt @40°C) -	5 mg/m <sup>3</sup> as mist	5 mg/m <sup>3</sup> as mist		
Highly refined, low viscosity base oil (Viscosity <7 cSt @40°C) -	5 mg/m <sup>3</sup> as mist	5 mg/m <sup>3</sup> as mist		
Highly refined base oil (Viscosity >20.5 cSt @40°C) -	5 mg/m <sup>3</sup> as mist	5 mg/m <sup>3</sup> as mist		

Hydrocarbon solvent vapor mixtures which do not have substance specific occupational exposure limits may be evaluated by the Reciprocal Calculation Procedure (RCP) which assigns a recommended occupational exposure limit based on the mass composition and hydrocarbon group guidance values (GGVs). Applicable recommended occupational exposure limits are shown in the table below.

Chemical Name	RCP OEL	Manufacturer
Distillates (petroleum), hydrotreated middle 64742-46-7	RCP: TWA 1200 mg/m <sup>3</sup> 143ppm	

Chemical Name	RCP OEL	Manufacturer
Distillates (petroleum), hydrotreated middle 64742-46-7	RCP: TWA 1200 mg/m <sup>3</sup> 143ppm	
Distillates (petroleum), hydrotreated light 64742-47-8	RCP: TWA 1200 mg/m <sup>3</sup> 182ppm	
Naphtha (petroleum), hydrotreated heavy 64742-48-9	RCP: TWA 1000 mg/m <sup>3</sup>	
C12-C14 isoalkanes 68551-19-9	RCP: TWA 1200 mg/m <sup>3</sup>	
Hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, <2% aromatics NOT AVAILABLE	RCP C9-C15 aliphatics: 600mg/m <sup>3</sup>	
Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, <2% aromatics NOT AVAILABLE	TWA: 600 mg/m <sup>3</sup>	
Hydrocarbons, C13-C16, n-alkanes, isoalkanes, cyclics, <0.03% aromatics NOT AVAILABLE	RCP C9-C15 aliphatics: 600mg/m <sup>3</sup>	
Hydrocarbons, C12-C15, n-alkanes, isoalkanes, cyclics, <2% aromatics NOT AVAILABLE	TWA: 150ppm TWA: 1200 mg/m <sup>3</sup>	
Hydrocarbons, C11-C13, isoalkanes, <2% aromatics NOT AVAILABLE	TWA: 171 ppm TWA: 1200 mg/m <sup>3</sup>	
Hydrocarbons, C11-C12, isoalkanes, <2% aromatics NOT AVAILABLE	RCP C9-C15 aliphatics: 600mg/m <sup>3</sup>	
Hydrocarbons, C11-C14, isoalkanes, cyclics, <2% aromatics NOT AVAILABLE	TWA: 165 ppm TWA: 1200 mg/m <sup>3</sup>	
Hydrocarbons, C12-C16, isoalkanes, cyclics, <2% aromatics NOT AVAILABLE	RCP: TWA 1200 mg/m <sup>3</sup> 182ppm	
Hydrocarbons, C15-C20, n-alkanes, isoalkanes, cyclics, <0.03% aromatics NOT AVAILABLE	RCP: TWA 600 mg/m <sup>3</sup>	
Hydrocarbons, C14-C18, n-alkanes, isoalkanes, cyclics, <2% aromatics NOT AVAILABLE	RCP: TWA 600 mg/m <sup>3</sup>	

### Exposure controls

#### Engineering Measures

Showers  
Eyewash stations  
Ventilation systems.

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

<b>Eye/Face Protection</b>	Safety glasses with side-shields.
<b>Skin and body protection</b>	Wear protective gloves/clothing.
<b>Respiratory protection</b>	If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Respiratory protection must be provided in accordance with current local regulations.
<b>Hygiene measures</b>	Handle in accordance with good industrial hygiene and safety practice.

**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES****9.1. Information on basic physical and chemical properties**

<b>Physical state @20°C</b>	liquid	<b>Appearance</b>	amber
<b>Odor</b>	Mild	<b>Odor Threshold</b>	Not Applicable
<u>Property</u>	<u>Values</u>	<u>Note</u>	
<b>pH</b>	No information available		
<b>Melting Point / Freezing Point</b>	No information available		
<b>Boiling point/boiling range</b>	> 260 °C // > 500 °F		
<b>Flash point</b>	160 °C / 320 °F	Open cup	
<b>Evaporation rate</b>	< 1	(BuAc = 1)	
<b>Flammability (solid, gas)</b>	No information available		
<b>Flammability Limits in Air</b>			
<b>upper flammability limit</b>	No information available		
<b>Lower flammability limit</b>	No information available		
<b>Vapor pressure</b>	No information available		
<b>Vapor density</b>	No information available		
<b>Relative density</b>	0.85	@ 15.5°C	
<b>Solubility(ies)</b>	negligible		
<b>Partition coefficient: n-octanol/water</b>	Not Applicable		
<b>Autoignition temperature</b>	> 316 °C / > 601 °F		
<b>Decomposition temperature</b>	No information available		
<b>Viscosity, kinematic</b>	~ 36 cSt @ 40 °C		
<b>Explosive properties</b>	Not Applicable		
<b>Oxidizing Properties</b>	Not Applicable		

**9.2 Other information**

<b>Viscosity, kinematic (100°C)</b>	No information available
<b>Pour point</b>	No information available
<b>VOC Content (ASTM E-1868-10)</b>	No information available
<b>VOC Content</b>	No information available

**SECTION 10: STABILITY AND REACTIVITY****10.1. Reactivity**

None under normal use conditions

**10.2. Chemical stability**

Stable under normal conditions

**10.3. Possibility of hazardous reactions**

None under normal use conditions

#### 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, Strong bases

#### 10.6. Hazardous decomposition products

Incomplete combustion and thermolysis produces potentially toxic gases such as carbon monoxide and carbon dioxide.

### SECTION 11: TOXICOLOGICAL INFORMATION

#### Information on likely routes of exposure

<b>Product Information</b>	There is no data available for this product
<b>Inhalation</b>	There is no data available for this product.
<b>Eye contact</b>	There is no data available for this product.
<b>Skin contact</b>	There is no data available for this product.
<b>Ingestion</b>	There is no data available for this product.

#### Component Information

Chemical Name	LD50 Oral (Rat)	LD50 Dermal (Rat/Rabbit)	LC50 Inhalation
Highly refined, low viscosity mineral oils/hydrocarbons (Viscosity >7 - <20.5 cSt @40°C) -	>2000 mg/kg	>2000 mg/kg	
Highly refined, low viscosity base oil (Viscosity <7 cSt @40°C) -	>2000 mg/kg	>2000 mg/kg	
Highly refined base oil (Viscosity >20.5 cSt @40°C) -	>2000 mg/kg	>2000 mg/kg	

#### Information on toxicological effects

**Symptoms** Prolonged skin contact may defat the skin and produce dermatitis.

#### Delayed and immediate effects as well as chronic effects from short and long-term exposure

<b>Sensitization</b>	None known.
<b>Germ Cell Mutagenicity</b>	None known.
<b>Carcinogenicity</b>	None known.
<b>Reproductive toxicity</b>	None known.
<b>Specific target organ systemic toxicity (single exposure)</b>	None known.
<b>Specific target organ systemic toxicity (repeated exposure)</b>	None known.

**Aspiration hazard** None known.

## SECTION 12: ECOLOGICAL INFORMATION

### Ecotoxicity

No special environmental measures are necessary

### Persistence and degradability

The product is not readily biodegradable, but it can be degraded by micro-organisms, it is regarded as being inherently biodegradable.

### Bioaccumulation

No information available.

### Other adverse effects

No information available

## SECTION 13: DISPOSAL CONSIDERATIONS

### Waste treatment

#### **Waste Disposal Methods**

Dispose of in accordance with federal, state, and local regulations.

#### **Contaminated packaging**

Observe all label precautions until container is cleaned, reconditioned or destroyed.

## SECTION 14: TRANSPORT INFORMATION

### DOT

Not regulated

### TDG

Not regulated

### ICAO/IATA

Not regulated

### IMDG/IMO

Not regulated

## SECTION 15: REGULATORY INFORMATION

### International Inventories

<b>TSCA</b>	Complies
<b>DSL</b>	Complies
<b>AICS</b>	Complies
<b>PICCS</b>	Complies
<b>KECL</b>	Does not Comply
<b>IECSC</b>	Complies
<b>ENCS</b>	Does not Comply

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory

**AICS** - Australian Inventory of Chemical Substances

**PICCS** - Philippines Inventory of Chemicals and Chemical Substances

**KECL** - Korean Existing and Evaluated Chemical Substances

**IECSC** - China Inventory of Existing Chemical Substances

**ENCS** - Japan Existing and New Chemical Substances

### U.S. Federal Regulations

#### SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

#### SARA 311/312 Hazard Categories

Acute Health Hazard	no
Chronic Health Hazard	no
Fire Hazard	no
Sudden Release of Pressure Hazard	no
Reactive Hazard	no

#### Clean Water Act

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

#### CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

#### U.S. State Regulations

##### SCAQMD Rule 1144

This product has not been tested for VOC content by the ASTM E-1868-10 method and is not approved for sale or distribution in the SCAQM District of California if the product is used as a metal forming, metal removal, metal treating, metal protection fluid or as a direct-contact lubricant.

##### California Proposition 65

This product does not contain any Proposition 65 chemicals.

#### International Regulations

**Mexico - Grade** Slight risk, Grade 1

##### Canada

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

##### WHMIS Hazard Class

Non-controlled

##### Other information

Not applicable

**The highly refined base oil (Viscosity >20.5 cSt @40°C) contains one or more substance with the following CAS/EC numbers/REACH registration numbers:**

Chemical Name	CAS-No
Lubricating oils (petroleum), C24-50, solvent-extd., dewaxed, hydrogenated	101316-72-7
Lubricating oils (petroleum), used, noncatalytically refined	101316-73-8
Distillates (petroleum), solvent-refined heavy paraffinic	64741-88-4
Residual oils (petroleum), solvent-refined	64742-01-4
Extracts (petroleum), residual oil solvent	64742-10-5
Distillates (petroleum), hydrotreated heavy naphthenic	64742-52-5
Distillates (petroleum), hydrotreated light naphthenic	64742-53-6
Distillates (petroleum), hydrotreated heavy paraffinic	64742-54-7
Residual oils (petroleum), hydrotreated	64742-57-0
Lubricating oils (petroleum), hydrotreated spent	64742-58-1



Residual oils (petroleum), solvent-dewaxed	64742-62-7
Distillates (petroleum), solvent-dewaxed heavy, paraffinic	64742-65-0
Paraffin oils (petroleum), catalytic dewaxed heavy	64742-70-7
Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based	72623-86-0
Lubricating oils (petroleum), C20-C50, hydrotreated neutral oil-based	72623-87-1
Lubricating oils	74869-22-0
Paraffin oils	8012-95-1
White mineral oil (petroleum)	8042-47-5
C18-C50 branched, cyclic and linear hydrocarbons – Distillates	848301-69-9

The highly refined, low viscosity mineral oils/hydrocarbons (Viscosity >7 - <20.5 cSt @40°C) contains one or more substance with the following CAS/EC numbers/REACH registration numbers:

Chemical Name	CAS-No
Distillates (petroleum), straight-run middle	64741-44-2
Distillates (petroleum), heavy hydrocracked	64741-76-0
Distillates (petroleum), solvent-refined light paraffinic	64741-89-5
Distillates (petroleum), hydrotreated middle	64742-46-7
Distillates (petroleum), hydrotreated middle	64742-46-7
Distillates (petroleum), hydrotreated light	64742-47-8
Distillates (petroleum), hydrotreated light naphthenic	64742-53-6
Distillates (petroleum), hydrotreated heavy paraffinic	64742-54-7
Distillates (petroleum), hydrotreated light paraffinic	64742-55-8
Distillates, petroleum, solvent-dewaxed light paraffinic	64742-56-9
Distillates (petroleum), solvent-dewaxed heavy, paraffinic	64742-65-0
Paraffin oils (petroleum), catalytic dewaxed light	64742-71-8
Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based	72623-86-0
Lubricating oils (petroleum), C20-C50, hydrotreated neutral oil-based	72623-87-1
White mineral oil (petroleum)	8042-47-5
C18-C50 branched, cyclic and linear hydrocarbons – Distillates	848301-69-9
Hydrocarbons, C14-C19, isoalkanes, cyclics, <2% aromatics	NOT AVAILABLE

The highly refined, low viscosity base oil (Viscosity <7 cSt @40°C) contains one or more substance with the following CAS/EC numbers/REACH registration numbers:

Chemical Name	CAS-No
Distillates (petroleum), hydrotreated middle	64742-46-7
Hydrocarbons, C13-C23, n-alkanes, isoalkanes, cyclics, < 0.03% aromatics	64742-46-7
Distillates (petroleum), hydrotreated light	64742-47-8
Naphtha (petroleum), hydrotreated heavy	64742-48-9
Distillates (petroleum), hydrotreated light naphthenic	64742-53-6
Distillates (petroleum), hydrotreated light paraffinic	64742-55-8
Distillates (petroleum), solvent-dewaxed light paraffinic	64742-56-9
C12-C14 isoalkanes	68551-19-9
White mineral oil (petroleum)	8042-47-5
C18-C50 branched, cyclic and linear hydrocarbons – Distillates	848301-69-9
Alkanes, C14-16	90622-46-1
Alkanes, C12-26-branched and linear	90622-53-0
Alkanes, C11-15-iso-	90622-58-5
Hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, <2% aromatics	NOT AVAILABLE
Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, <2% aromatics	NOT AVAILABLE
Hydrocarbons, C13-C16, n-alkanes, isoalkanes, cyclics, <0.03% aromatics	NOT AVAILABLE
Hydrocarbons, C12-C15, n-alkanes, isoalkanes, cyclics, <2% aromatics	NOT AVAILABLE
Hydrocarbons, C11-C14, n-alkanes, <2% aromatics	NOT AVAILABLE
Hydrocarbons, C11-C13, isoalkanes, <2% aromatics	NOT AVAILABLE
Hydrocarbons, C14-C18, n-alkanes, cyclics, aromatics (2-30%)	NOT AVAILABLE
Hydrocarbons, C11-C12, isoalkanes, <2% aromatics	NOT AVAILABLE
Hydrocarbons, C11-C14, isoalkanes, cyclics, <2% aromatics	NOT AVAILABLE
Hydrocarbons, C12-C16, isoalkanes, cyclics, <2% aromatics	NOT AVAILABLE
Hydrocarbons, C13-C16, isoalkanes, cyclics, < 2% aromatics	NOT AVAILABLE
Hydrocarbons, C15-C20, n-alkanes, isoalkanes, cyclics, <0.03% aromatics	NOT AVAILABLE

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aromatics	
Hydrocarbons, C14-C18, n-alkanes, isoalkanes, cyclics, <2% aromatics	NOT AVAILABLE

**SECTION 16: OTHER INFORMATION**

**NFPA**                      **Health Hazard** 0                      **Flammability** 1                      **Instability** 0                      **Physical and chemical hazards** -

**Key or legend to abbreviations and acronyms used in the safety data sheet**

STOT SE - Specific target organ systemic toxicity (Single exposure)  
STOT RE - Specific target organ systemic toxicity (repeated exposure)  
TSCA - United States Toxic Substances Control Act Section 8(b) Inventory  
VOC - Volatile organic compounds

**Revision Date:** 03-02-2015

**Revision Note**

No information available

**Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

end