Centre Anti-Poison pour le Québec: (800) 463-5060
Tél. (Qc): (418) 660-8666 / 800-890-8666
Fax. (Qc): (418) 660-8998

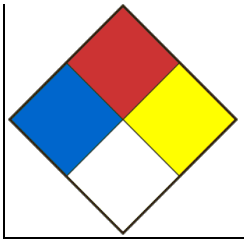
SAFETY DATA SHEET

SECTION 01 - PRODUCT AND COMPANY IDENTIFICATION

Product Identifier GREASE KIT #2		**Product Use** Laboratory use	
Chemical formula -		**Product code** GK-0002	**Molar weight**
Chemical name / Commercial name / Synonymous -			
Supplier's name Laboratoire MAT		**Address-Street** 610, Adanac Street	
City Québec		**Province** Québec	
Postal code G1C 7B7	**Internet** www.labmat.com	**Phone number** 418-660-8666 / 800-890-8666	
Emergency phone	CANUTEC: 613-996-6666	CENTRE ANTI-POISON DU QUÉBEC 800-463-5060	
Date SDS 6/5/2023	**SDS Prepared by** Laboratoire MAT	**E-Mail** labmat@labmat.com	

SECTION 02 - HAZARDS IDENTIFICATION

Classification WHIMS / GHS	Specific Target Organ Toxicity - Repeated exposure category 2 Specific target organ toxicity - Single exposure category 3 Flammable liquids category 3 Reproductive toxicity category 2 Skin corrosion/irritation - Skin irritation category 2 Serious eye damage/eye irritation - Eye irritation category 2
Signal Word	WARNING
Hazards statements (H)	H336 May cause drowsiness or dizziness. H373 May cause damage to organs through prolonged or repeated exposure. H226 Flammable liquid and vapor. H361 Suspected of damaging fertility or the unborn child. H315 Causes skin irritation. H319 Causes serious eye irritation.
Precautionary statements (P)	P260 Do not breathe dust / fume / gas / mist / vapors / spray. P261 Avoid breathing dust / fume / gas / mist / vapors / spray. P271 Use only outdoors or in a well-ventilated area. P280 Wear protective gloves/protective clothing/eye protection/face protection. P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. P312 Call a POISON CENTER or doctor/physician if you feel unwell. P314 Get medical advice/attention if you feel unwell. P403 + P233 Store in a well-ventilated place. Keep container tightly closed. P405 Store locked up. P501 Dispose of contents/container in accordance with local / regional / national / international regulations or contact a specialist waste disposal company. P210 Keep away from heat/sparks/open flames/hot surfaces. — No smoking. P233 Keep container tightly closed. P240 Ground/bond container and receiving equipment. P241 Use explosion-proof electrical/ventilating/lighting equipment. P242 Use only non-sparking tools. P243 Take precautionary measures against static discharge. P303 + P361 + P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. P370 + P378 In case of fire: Use water spray or alcohol-resistant foam, or dry powder or carbon dioxide for extinction. P403 + P235 Store in a well-ventilated place. Keep cool. P201 Obtain special instructions before use. P202 Do not handle until all safety precautions have been read and understood. P308 + P313 IF exposed or concerned: Get medical advice/attention. P264 Wash the areas of the body that have been in contact with the product after handling. P302 + P352 IF ON SKIN: Wash with plenty of soap and water. P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P321 Specific treatment (see section 4 of the SDS and on this label). P332 + P313 If skin irritation occurs: Get medical advice/attention. P337 + P313 If eye irritation persists: Get medical advice/attention. P362 + P364 Take off contaminated clothing and wash it before reuse.
PICTOGRAMS	
Other dangers	NFPA (Risk: 0=No risk; 1=Slight; 2=Moderate; 3=Significant; 4=Extreme)



Health	2
Fire	2
Reactivity	0
Special danger	

SECTION 03 - COMPOSITION/INFORMATION ON INGREDIENTS

Ingrédients (Dénomination chimique / synonymes)	Numéro CAS et tout identificateur unique	Concentration (%)
Huile de ricin	8001-79-4	91.8
Toluène	108-88-3	4.6
Heptane	142-82-5	3.6

SECTION 04 - FIRST AID MEASURES

Eye contact	Wash eyes with large amounts of water for at least 15 minutes while holding eyelids apart to rinse eyes. If irritation persists, seek medical attention.
Skin contact	Wash skin with plenty of water for at least 15 minutes. Remove soiled clothing. If irritation persists, seek medical attention.
Inhalation	Move the unwell person to the fresh air. If breathing is difficult, give oxygen. Consult a physician.
Ingestion	If the person is conscious, give water to drink. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Consult a physician.
Most important symptoms and effects (acute and delayed)	Main symptoms of high exposure: Headaches. Dizziness. Nausea and vomiting. Feeling drunk. Drowsiness. Lungs damage. Anesthesia. Cough. Pulmonary edema. Skin irritation. Eyes irritation. Skin sensitizer. Pelvic congestion. Narcosis. Loss of appetite. To our knowledge, the chemical, physical and toxicological properties have not been fully investigated. Ref. section 11.
Immediate medical attention and special treatment, if necessary	In case of medical consultation, keep this sheet available.
General advice	Show this safety data sheet to the doctor in attendance.

SECTION 05 - FIREFIGHTING MEASURES

Flammability	Yes
Ignition conditions	Strong oxidizing agents, heat, sparks and open flame. Flammable in the presence of a source of ignition when the temperature is above the flash point. Keep away from heat/sparks/open flame/hot surface. No smoking.
Suitable extinguishing media	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Unsuitable extinguishing media	Do not use a heavy water stream.
Hazardous combustion products	Hazardous combustion products formed under fire conditions: Carbon oxides.
Special fire and explosion hazards	Steam can travel a great distance and ignite on sources of ignition such as heaters, electrical appliances, cigarettes, sparks, etc. Containers exposed to fire may explode. Vapors may form flammable or explosive mixtures with air. Contact with strong oxidizing agents may cause fire. Toluene may spontaneously ignite or explode on contact with the following products: nitric acid, sulfuric acid, silver perchlorate, nitrogen tetroxide, bromine trifluoride, 1,3-dichloro-dimethyl- 5.5 imidazolidione-2,4, tetranitromethane and uranium hexafluoride. May react violently with incompatible products (Ref Section 10).
Special protective equipment and precautions for firefighters	Discard incompatible substances if this can be done without risk. Firefighters should be equipped with standard protective equipment, fireproof clothing, face mask, gloves, protective boots and, where appropriate, self-contained breathing apparatus.

SECTION 06 - ACCIDENTAL RELEASE MEASURES

Methods and materials for containment and cleaning up / Personnal precautions, protective equipment	Evacuate personnel to safe areas. Remove all sources of ignition. Absorb the product with sand or vermiculite. Dilute residues with water, clean and rinse. Ensure a good ventilation of the premises. Dispose of residues in a container for disposal of hazardous materials. When handling, wear suitable safety equipment. Use breathing apparatus if necessary. Avoid breathing vapors, mist or gas. Beware of vapors accumulating to form explosive concentrations. Do not let product enter drains.

SECTION 07 - HANDLING AND STORAGE

Conditions for safe storage	Store in a cool, dry place. Keep container tightly closed and store away from heat, sparks and open flame. Use venting and electrical equipment that is grounded and does not produce ignition sources (sparks). Protect from the sun's rays. Keep container tightly closed in a dry and well-ventilated place. Keep container tightly closed away from heat, moisture, and incompatible materials.
Methods of handling	Bottle in the glass only. Always open containers slowly to allow any excess pressure to vent. Avoid ingestion and inhalation. Use explosion-proof equipment. Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge. Wear personal protective equipment when handling. Always ensure good ventilation. Transport according to TDG (ref Section 14)

SECTION 08 - EXPOSURE CONTROLS/PERSONAL PROTECTION

Workplace control parameters

Components	CAS-No.	Control parameters	Value	Basis
Toluene	108-88-3	TWA	20 ppm	Canada. British Columbia OEL
Remarks	Adverse reproductive effect			
		TWA	50 ppm 188 mg/m3	Canada. Alberta, Occupational Health and Safety Code (table 2: OEL)
	Substance may be readily absorbed through intact skin			
		TWAEV	20 ppm	Québec. Regulation respecting occupational health and safety, Schedule 1, Part 1: Permissible exposure values for airborne contaminants
	Skin (percutaneous)			
		TWA	20 ppm	USA. ACGIH Threshold Limit Values (TLV)
	Visual impairment Female reproductive Pregnancy loss 2013 Adoption Substances for which there is a Biological Exposure Index or Indices (see BEI® section) Not classifiable as a human carcinogen			
		TWAEV	20 ppm	Canada. Ontario OELs

Components	CAS-No.	Value	Control parameters	Basis
Heptane	142-82-5	TWA	400.000000 ppm	Canada. British Columbia OEL
		STEL	500.000000 ppm	Canada. British Columbia OEL
		TWAEV	400.000000 ppm 1,635.000000 mg/m3	Canada. Ontario OELs
		STEV	500.000000 ppm 2,045.000000 mg/m3	Canada. Ontario OELs
		TWAEV	400.000000 ppm 1,640.000000 mg/m3	Québec. Regulation respecting occupational health and safety, Schedule 1, Part 1: Permissible exposure values for airborne contaminants
		STEV	500.000000 ppm 2,050.000000 mg/m3	Québec. Regulation respecting occupational health and safety, Schedule 1, Part 1: Permissible exposure values for airborne contaminants
		TWA	400.000000 ppm 1,640.000000 mg/m3	Canada. Alberta, Occupational Health and Safety Code (table 2: OEL)
		STEL	500.000000 ppm 2,050.000000 mg/m3	Canada. Alberta, Occupational Health and Safety Code (table 2: OEL)
		TWA	400.000000 ppm 1,640.000000 mg/m3	Canada. Alberta, Occupational Health and Safety Code (table 2: OEL)
		STEL	500.000000 ppm 2,050.000000 mg/m3	Canada. Alberta, Occupational Health and Safety Code (table 2: OEL)
		TWA	400.000000 ppm	USA. ACGIH Threshold Limit Values (TLV)
		STEL	500.000000 ppm	USA. ACGIH Threshold Limit Values (TLV)
		TWA	400.000000 ppm	USA. ACGIH Threshold Limit Values (TLV)
		STEL	500.000000 ppm	USA. ACGIH Threshold Limit Values (TLV)

Components	CAS-No.	Control parameters	Value	Basis

Castor oil	8001-79-4	TLV, TWA,STEL	No data available	Canada. Alberta, Occupational Health and Safety Code (table 2: OEL)
		TLV, TWA,STEL	No data available	Canada. British Columbia OEL
		TLV, TWA,STEL	No data available	Québec. Regulation respecting occupational health and safety, Schedule 1, Part 1: Permissible exposure values for airborne contaminants

Data source	Sigma-Aldrich. CNESST
Ventilation	Fan.
Respiratory	If the permissible levels are exceeded, use a mechanical filter / cartridge against NIOSH vapors or a respirator with air supply.
Gloves	Handle with gloves.
Eyes	Safety goggles with safety shutters.
Shoes	Safety shoes.
Clothing	Labcoat. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.
Engineering control	Have safety showers and eyewash stations in the workplace in case of an emergency and a ventilation system to maintain the level of concentrations in the air below the exposure limit values.

SECTION 09 - PHYSICAL AND CHEMICAL PROPERTIES

Physical state	Liquid.
Appearance	liquide clair.
Odour	Odeur aromatique..
Odour threshold	Data not available
pH	Donnée non disponible.
Melting point / Freezing point	Data not available
Initial boiling point	Data not available
Boiling range	Data not available
Flash point	Data not available
Evaporation rate	Data not available
Flammability	Yes
Lower flammable / Explosive limit	Data not available
Upper flammable / Explosive limit	Data not available
Vapour pressure	Data not available
Solubility	Insoluble dans l'eau..
Vapour density	Data not available
Relative density	Data not available
Partition coefficient water/n-octanol	Data not available
Auto-ignition temperature	Data not available
Decomposition temperature	Data not available
Viscosity	Data not available

SECTION 10 - STABILITY AND REACTIVITY

Reactivity	May ignite on contact with oxidants. Flammable product, may ignite with source of ignition, if temperature above flash point.
Chemical stability	Stable under recommended storage conditions. Sensitive to heat.
Possibility of hazardous reactions	Vapors may form explosive mixture with air. Highly flammable liquid and vapors.
Conditions of instability (Including sensitivity to shock / static discharge / vibration)	Heat, flames, sparks. Avoid the accumulation of static electricity. Avoid contact with incompatible materials.
Incompatible material	Strong oxidizing agents (nitric acid, perchloric acid, peroxides, chlorates and perchlorates), sulfuric acid, nitrogen tetroxide, bromine trifluoride, 1,3-dichloro-dimethyl-5,5-imidazolidione 2,4, tetranitromethane, uranium hexafluoride, heat and moisture.
Hazardous decomposition products	Hazardous decomposition products formed under fire conditions. Carbon oxides.

SECTION 11 - TOXICOLOGICAL INFORMATION

TOLUENE

Routes of exposure	Ingestion, inhalation, skin and eyes.
Acute exposition effects / symptoms:	By exposure route below.
- Eyes	Irritation and tearing.
- Skin	Irritation and dermatitis.
- Inhalation	Irritation of the mucous membranes and respiratory tract. Narcotic effects, chest pain, cough, dyspnea, headache, vertigo, watery eyes, drowsiness, confusion, incoordination, paresthesia, nystagmus, mydriasis, nausea and vomiting, weakness, convulsions, stupor, ventricular fibrillation, cardiac arrest and death .
Acute toxicity (Ingestion)	Irritation of the mucous membranes. Narcotic effects, chest pain, cough, dyspnea, headache, vertigo, watery eyes, drowsiness, confusion, incoordination, paresthesia, nystagmus, mydriasis, nausea and vomiting, weakness, convulsions, stupor, ventricular fibrillation, cardiac arrest and death . NOTE: Aspiration of the product into the lungs may cause chemical pneumonitis, hemorrhagic pulmonary edema resulting in rapid death from cardiac arrest, respiratory paralysis and asphyxia.
Chronic exposure effects / symptoms	Depression of the central nervous system. Burning sensation, dermatitis, narcotic effects, liver and kidney damage, chest pain, cough, dyspnea, laryngitis, headache, dizziness, drowsiness, confusion, paresthesia, nystagmus, memory and concentration problems, metallic taste in the mouth, tremor, muscle weakness, hypokalemia, weight loss and loss of appetite, nausea and vomiting. The absorption of alcohol can aggravate the symptoms of intoxication.
DL50 (specify species and route of entry)	LD50 Oral - Rat - 5580 mg/kg. LD50 Dermal - Rabbit - 5000 mg/kg.
CL50 (specify species and route of entry)	LC50 Inhalation - Rat - 4h - 25.7 - 30 mg/L

HEPTANE

Routes of exposure	Ingestion, inhalation, skin and eyes.
Acute exposition effects / symptoms:	By exposure route below.
- Eyes	Irritation and tearing.
- Skin	Irritation and dermatitis.
- Inhalation	Irritation of the mucous membranes and respiratory tract. Narcotic effects, cough, dyspnea, headache, dizziness, drowsiness, incoordination, erythema and may lead to unconsciousness. Inhalation of very high concentrations may cause tracheobronchial irritation, convulsions, narcosis and coma.
Acute toxicity (Ingestion)	Irritation of the mucous membranes. Narcotic effects, gastrointestinal disorders, cramps, diarrhea, headache, dizziness, drowsiness, hallucinations, incoordination, erythema, nausea and vomiting, convulsions and may result in unconsciousness and coma.NOTE: aspiration of the product into the lungs can cause chemical pneumonia.
Chronic exposure effects / symptoms	Burning sensation, dermatosis (degreasing action), narcotic effects, chest pain, cough, dyspnea, headache, dizziness, drowsiness, incoordination, irritability, erythema, fatigue, loss of appetite, nausea and vomiting.
DL50 (specify species and route of entry)	LD50 Oral - Rat - >15 g/kg LD50 Dermal - Rabbit - > 2 g/kg
CL50 (specify species and route of entry)	LC50 Inhalation - Rat - 4h - 103 000 mg/m3

CASTOR OIL

Routes of exposure	Ingestion.
Acute exposition effects / symptoms:	By exposure route below.
- Eyes	May cause eye irritation.
- Skin	May cause sensitization by skin contact. May cause skin irritation.
- Inhalation	May cause respiratory tract irritation.
Acute toxicity (Ingestion)	Irritation of the digestive system. Pelvic congestion.
Chronic exposure effects / symptoms	Skin sensitizer.
DL50 (specify species and route of entry)	LD50 Oral - Data not available. LD50 Dermal: Data not available.
CL50 (specify species and route of entry)	LC50 - Inhalation - Data not available.

SUMMARY

Acute exposure effects / Symptoms:	By exposure routes below.
Ingestion	To our knowledge, the product has not been fully evaluated
Inhalation	To our knowledge, the product has not been fully evaluated
Skin	To our knowledge, the product has not been fully evaluated
Eyes	To our knowledge, the product has not been fully evaluated
Chronic exposure effects / Symptoms:	To our knowledge, the product has not been fully evaluated
ETA Mix (Estimated Acute Toxicity)	LD50 Oral: 4717 mg/kg - Rat LD50 Dermal: 2666 mg/kg - Rabbit LC50 Inhalation: 24 mg/L - 4h - Rat

SECTION 12 - ECOLOGICAL INFORMATION

Ecotoxicity	Toluene: Toxicity to fish: LC50 - Oncorhynchus mykiss (rainbow trout) - 7.63 mg/l - 96 h. NOEC - Pimephales promelas (fathead minnow) - 5.44 mg/l - 7 d Toxicity to daphnia and other aquatic invertebrates: EC50 - Daphnia magna (Water flea) - 8.00 mg/l - 24 h Immobilization EC50 - Daphnia magna (Water flea) - 6 mg/l - 48 h Toxicity to algae: EC50 - Chlorella vulgaris (Fresh water algae) - 245.00 mg/l - 24 h EC50 - Pseudokirchneriella subcapitata (green algae) - 10.00 mg/l - 24 h Heptane: Toxicity to fish: CL50 - Carassius auratus (Gold fish) - 4 mg/L - 24h CL50 - Tilapia mossambica - 375 mg/L - 96h Toxicity to daphnia and other aquatic invertebrates: EC50 - Daphnia magna (Water flea) - 1.50 mg/L - 48h
Persistence and degradability	Data not available.
Bioaccumulative potential	Based on the ingredient data, potential bioaccumulation can be expected.
Mobility in soil	Unlikely mobility in the environment due to its low solubility in water.
Other adverse effects	Harmful to aquatic life. An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

SECTION 13 - DISPOSAL CONSIDERATIONS

Waste Disposal Method	Dispose of contents / container in accordance with local / regional / national / international regulations / or contact a specialist waste disposal company.
Contaminated Packaging	Dispose of as unused product.

SECTION 14 - TRANSPORT INFORMATION

UN Number	1993
UN Proper shipping name	LIQUIDE INFLAMMABLE, N.S.A. (Toluène, Heptane)
Transport hazard class(es)	3 Flammable liquids
Packing group	III
Limited quantity index	5L
ERAP Index	-
Special precautions	16, 150

SECTION 15 - REGULATORY INFORMATION

WHIMS CANADA / SGH	Specific Target Organ Toxicity - Repeated exposure category 2 Specific target organ toxicity - Single exposure category 3 Flammable liquids category 3 Reproductive toxicity category 2 Skin corrosion/irritation - Skin irritation category 2 Serious eye damage/eye irritation - Eye irritation category 2

SECTION 16 - OTHER INFORMATION

Further information

The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. It does not represent any guarantee of the properties of the product. Laboratoire MAT Inc. shall not be held liable for any damage resulting from handling or from contact with the above product.

Last Update: 6/5/2023