Safety Data Sheet
PRE KLEENO

1. Identification

Product identifier	PRE KLEENO
Product code	1799
Other means of identification	PRE KLEENO
Recommended use of the chemical and restrictions on use	Car cleaner before painting.
Manufacturer	Mi 6:8 301 TWEEDSMUIR AVE LONDON, ONTARIO CANADA N5W 1L5 519 902 6227
Emergency phone number	Canutec: 613-996-6666 QUEBEC ANTI-POISON CENTER AT 1-800-463-5060

2. Hazard identification

Summary	FLAMMABLE LIQUID! Keep away from heat, sparks and open flame. Avoid contact with skin, eyes and clothing. Do not breathe vapours, mists or aerosols. Do not ingest. If ingested consult physician immediately and show this Safety Data Sheet. Wear eye protection, gloves and other protective clothing that are adapted to the task being performed and the risks involved.

WHMIS 2015/GHS/OSHA HCS 2012

Flammable liquids (Category 2)
Skin irritation (Category 2)
Eye irritation (Category 2B)
Reproductive toxicity (Category 1)
Reproductive toxicity (Additional category on effects on or via lactation)
Specific target organ toxicity, single exposure, Narcotic effects (Category 3)
Specific target organ toxicity, repeated exposure (Category 1)
Aspiration hazard (Category 1)

DANGER

H225: Highly flammable liquid and vapour
H360D: May damage the unborn child
H372: Causes damage to organs through prolonged or repeated exposure
H304: May be fatal if swallowed and enters airways
H315 + H320: Causes skin and eye irritation
H336: May cause drowsiness or dizziness
H362: May cause harm to breast-fed children
H411: Toxic to aquatic life with long lasting effects
P101: If medical advice is needed, have product container or label at hand.
P102: Keep out of reach of children.
P202: Do not handle until all safety precautions have been read and understood.

P210: Keep away from heat, sparks, open flames and other ignition sources. No smoking.
P240: Ground or bond container and receiving equipment.
P242: Use only non-sparking tools.
P243: Take precautionary measures against static discharge.
P260: Do not breathe vapours.
P263: Avoid contact during pregnancy or while nursing.
P264: Wash skin thoroughly after handling.
P270: Do not eat, drink or smoke when using this product.
P271: Use only outdoors or in a well-ventilated area.
P273: Avoid release to the environment.
P280: Wear protective gloves, protective clothing and eye protection.
P301+310+331: IF SWALLOWED: Immediately call a POISON CENTER or a physician. Do NOT induce vomiting.
P303+361+353: IF ON SKIN (or hair): Remove immediately all contaminated clothing. Rinse skin with water and soap or take a shower if necessary.
P332+313: If skin irritation occurs: Get medical advice or attention.
P304+340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P312: Call a POISON CENTER or physician if you feel unwell.
P305+351+338: IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.
P337+313: If eye irritation persists: Get medical advice or attention.
P362+364: Take off contaminated clothing and wash before reuse.
P370+378: In case of fire: Use chemical foam, dry chemical or carbon dioxide to extinguish.
P391: Collect spillage.
P403+P235+P233: Store in a well-ventilated place. Keep container tightly closed. Keep cool.
P501: Dispose of contents and container to an approved waste disposal plant.

Other hazards which do not result in classification
Long-term hazard to the aquatic environment (Category 2)

3. Composition/information on ingredients

Common name	**CAS**	**Weight % content**
Solvent naphtha (Petroleum), light aliphatic	64742-89-8	40 - 70 %
Toluene	108-88-3	10 - 30 %
Xylene	1330-20-7	10 - 30 %

4. First-aid measures

Inhalation	Move person to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen by trained personnel. If a problem develops or persists, seek medical attention.
Skin contact	Flush with water for at least 15 minutes. Remove contaminated clothing and wash before reuse. Avoid touching eyes with contaminated body parts. If a problem develops or persists, seek medical attention.
Eye contact	IMMEDIATELY flush with plenty of water. Remove contact lenses if easy to do. Flush with water for at least 15 minutes. Hold eyelids apart to rinse properly. If a problem develops or persists, seek medical attention.
Ingestion	DO NOT induce vomiting, unless recommended by medical personnel. If victim is conscious wash out mouth with plenty of water. Never give anything by mouth if victim is unconscious or convulsing. If spontaneous vomiting occurs, keep head below hip level to prevent aspiration into the lungs. Seek medical attention or contact a Poison Centre immediately.
Other	No information available.
Symptoms	May cause eye irritation. May cause dry skin and irritation. Inhalation of vapours may cause central nervous system depression such as drowsiness, headache, dizziness, vertigo, nausea and fatigue. Signs of lung involvement include increased respiratory rate, increased heart rate, and a bluish discolouration of the skin. Coughing, choking and gagging are often noted at the time of aspiration.

Notes to the physician	Aspiration hazard for the lungs (ingestion/vomiting). Can enter lungs and cause damage. If gastric lavage is performed, suggest endotracheal and/or esophageal control. Danger from lung aspiration must be weighed against toxicity when considering emptying the stomach. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.

5. Fire-fighting measures

Suitable extinguishing media	dry powder, carbon dioxide (CO2), alcohol resistant foam, Do not use a heavy water jet.
Specific hazards arising from the chemical	Highly flammable liquid and vapour. May be ignited by heat, sparks, flame or static electricity. Vapours are heavier than air and may travel to an ignition source distant from the material handling point. Contact with strong oxidizers may cause fire. Product floating on water can travel to an ignition source and spread the fire.
Special protective equipment	Firefighters must wear self contained breathing apparatus with full face mask. Firefighting suit may not be efficient against chemicals.
Special protective actions for fire-fighters	Water may be ineffective to extinguish fires. Use water spray to cool fire-exposed containers. Prevent run-off from fire control or dilution from entering streams, sewers or drinking water supply.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Do not touch spilled material. Make sure to wear personal protective equipment mentioned in this Safety Data Sheet.
Environmental precautions	Prevent entry into sewers, closed areas and release to the environment. For a large spill, consult the Department of Environment or the relevant authorities.
Methods and materials for containment and cleaning up	Evacuate unauthorized personnel. Remove sources of ignition. Ventilate the area well. Stop leak, if it's possible to do so without risk. Make sure you have a fire extinguisher near you. Absorb with inert material (soil, sand, vermiculite) and place in an appropriate waste disposal clearly identified. Use non-sparking and antistatic tools. Dispose via a licensed waste disposal contractor.

7. Handling and storage

Precautions for safe handling	Keep away from heat, sparks and open flame. Avoid all sources of ignition. Use non-sparking and antistatic tools. Ground/bond all containers when transfering large quantities (5 gallons US or 20 L and more). Use only in well ventilated area. Do not breathe vapours, mists or aerosols. Avoid contact with skin, eyes and clothing. Wear eye protection, gloves and other protective clothing that are adapted to the task being performed and the risks involved. Keep only the quantities necessary for the work being performed in the work area. Keep containers tightly closed when not in use. Do not eat, do not drink and do not smoke during use. Wash hands, forearms and face thoroughly after handling this compound and before eating, drinking or using toiletries. Remove contaminated clothing and wash before reuse.
Conditions for safe storage, including any incompatibilities	Storage and handling should follow the NFPA 30 Flammable and/or Combustible Liquids Code and the National Fire Code of Canada (NFCC). Ground or bond large containers. Store tightly closed and in properly labelled containers in a cool, dry and well ventilated place. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Store away from oxidizing materials and incompatible materials (see section 10).
Storage temperature	10 to 25° C (50 to 77° F)

8. Exposure controls/personal protection

Immediately Dangerous to Life or Health	Toluene : 500 ppm. Xylenes: 900 ppm.

Solvent naphtha (Petroleum), light aliphatic	TWA (8h)	300 ppm		ACGIH
Xylene	STEL	150 ppm		ACGIH , BC, ON
		150 ppm	651 mg/m3	RSST
	TWA (8h)	100 ppm		ACGIH , BC, ON
		100 ppm	435 mg/m3	RSST
Toluene	TWA (8h)	20 ppm		ACGIH , BC, ON
		50 ppm	188 mg/m3	RSST (Pc)

Appropriate engineering controls	Provide sufficient mechanical ventilation (general or local exhaust) to keep the airborne concentrations of vapours, mists, aerosols or dust below their respective occupational exposure limits.
Individual protection measures	
Eye	If there is a risk of contact with eyes, wear chemical splash goggles. If respiratory hazards exist, a full face respirator may be required instead.
Hands	Chemical-resistant, impervious gloves should be worn at all times when handling this chemical product. Wear nitrile gloves, Neoprene gloves, polyvinyl alcohol (PVA) gloves or laminate multilayer gloves made of Polyethylene and Ethylene Vinyl Alcohol copolymer. Before using, user should confirm impermeability. Discard gloves with tears, pinholes, or signs of wear. Gloves must only be worn on clean hands. Wash gloves with water before removing them. After using gloves, hands should be washed and dried thoroughly. Disposable nitrile gloves can also be used, but discard after single use. DO NOT WEAR disposable latex or vinyl gloves.
Skin	Personal protective equipment for the body should be selected based on the task being performed and the risks involved. Wear normal work clothing covering arms and legs as required by employer code. Wear synthetic or a neoprene apron, if necessary, to prevent repeated or prolonged contact with skin. Synthetic polyethylene coveralls such as the Tychem (DuPont) or equivalent coveralls manufactured to provide protection against liquid chemicals should be worm, if necessary.
Respiratory	Where the conditions in the workplace require a respirator, it is necessary to follow a respiratory protection program. Moreover, respiratory protection equipment (RPE) must be selected, fitted, maintained and inspected in accordance with regulations and standard 29 CFR 1910.134 (OSHA), ANSI Z88.2 or CSA Z 94.11 (Canada) and approved by NIOSH/MSHA. In case of insufficient ventilation or in confined or enclosed space and for an assigned protection factor (APF) up to 10 times of exposure limit, wear a half mask respirator with organic vapour cartridges. For an APF until maximum 100 times of exposure limit, wear a full face mask respirator with organic vapour cartridges.
Feet	Wear rubber boots to clean up a spill.

Goggles Nitrile gloves

9. Physical and chemical properties

Physical state	Liquid	**Flammability**	Flammable.
Colour	Colourless	**Flammability limits**	1.4 to 8.9%
Odour	Petroleum odor	**Flash point**	7° C (44.6° F) Tagliabue closed cup
Odour threshold	1 to 7 ppm	**Auto-ignition temperature**	253° C (487.4° F)

pH	N/Ap.	**Sensibility to electrostatic charges**	Yes
Melting point	<0° C (32° F)	**Sensibility to sparks and/or friction**	N.Av.
Freezing point	<0° C (32° F)	**Vapour density**	>3 (Air = 1)
Boiling point **Solubility**	113° C (235.4° F) Insoluble in water.	**Relative density** **Partition coefficient n-octanol/water**	0.76 kg/L (Water = 1) 2.1 to 6
Evaporation rate	> Butyl Acetate	**Decomposition temperature**	N/Av.
Vapour pressure	0.9 to 2.9kPa (6.8 to 21.8 mm Hg) @ 20° C (68° F)	**Viscosity**	N/Av.
Percent Volatile	100%	**Molecular mass**	N/Ap.

N/Av.: Not Available N/Ap.: Not Applicable Und.: Undetermined N/E: Not Established

10. Stability and reactivity

Reactivity	Can attack some plastics and rubbers such as natural rubber, butyl rubber, nitrile rubber, neoprene rubber and PVC.
Chemical stability	Stable under recommended storage conditions.
Possibility of hazardous reactions (including polymerizations)	A dangerous reaction will not occur.
Conditions to avoid	Avoid heat, flame and sparks. Avoid contact with incompatible materials.
Incompatible materials	Strong oxidants, potassium dichromate, sodium dichromate, nitric acid (HNO3) concentrated, Sulphuric acid (CAS no 7664-93-9).
Hazardous decomposition products	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

11. Toxicological information

Numerical measures of toxicity	Solvent naphtha (Petroleum), light aliphatic	Ingestion	>5000 mg/kg	Rat	LD50
		Inhalation	>20 mg/l/4h	Rat	LC50
		Skin	>3000 mg/kg	Rabbit	LD50
	Toluene	Ingestion	5600 mg/kg	Rat	LD50
		Inhalation	30.2 mg/l/4h	Rat	LC50
		Skin	12600 mg/kg	Rabbit	LD50
	Xylene	Ingestion	3523 mg/kg	Rat	LD50
		Inhalation	27.6 mg/l/4h	Rat	LC50
		Skin	3200 mg/kg	Rabbit	LD50
Likely routes of exposure	Skin, eyes, inhalation, ingestion.				

Delayed, immediate and chronic effects	**Eye contact**	May cause eye irritation. Eye Irritation/Corrosion, Rabbit (OECD TG 405): (data for toluene) Eyes irritating.
	Skin contact	May cause dry skin and irritation. Prolonged or repeated contact may cause defatting dermatitis. Skin Irritation (IUCLID), Rabbit : (data for toluene and xylene) Draize Score, moderately irritating.
	Inhalation	Excessive inhalation is harmful. May cause slight upper respiratory tract irritation. Inhalation of vapours may cause central nervous system depression such as drowsiness, headache, dizziness, vertigo, nausea and fatigue. The severity of symptoms may vary depending on exposure conditions. Excessive exposure to toluene can cause ontological effects (damage to the auditory system) among workers. Long-term and repeated rats and mice exposure to toluene causes a weight increase of many organs, effects on brain neurochemistry, neurotoxicity at the hippocampus and cerebellum, and hearing loss.
	Ingestion	May cause gastrointestinal irritation with nausea and vomiting. Ingestion of large amounts may cause depression of the central nervous system characterized by headache, dizziness, convulsions and loss of consciousness. Harmful or fatal if inhaled into the lungs (ingestion/vomiting). Signs of lung involvement include increased respiratory rate, increased heart rate, and a bluish discolouration of the skin. Coughing, choking and gagging are often noted at the time of aspiration.
	Respiratory or skin sensitization	This product is not a skin or respiratory sensitizer.
	IARC/NTP Classification	No ingredients listed.
	Carcinogenicity	Not listed as a carcinogen by IARC, ACGIH, NIOSH, NTP or OSHA.
	Teratogenicity	Xylene (CAS no 1330-20-7) overexposure may affect fetal development in laboratory animals by inhalation during pregnancy. There was a significant decrease in fetal body weight but with little effects on mortality and incidence of skeletal malformations.
	Mutagenicity	This material is not known to cause mutagenic effect.
	Reproductive toxicity	Toluene cross the placental barrier in humans and it is found in breast milk in animals. An epidemiological study (1992) has been done with women exposed only to toluene in a factory. The first group was exposed to ambient concentrations from 50 to 150 ppm and the second at concentrations from 0 to 25 ppm. Comparison with a control group demonstrated a higher spontaneous abortions rates significantly in women exposed to higher concentrations than those of little or no exposure group. Rat inhalation studies provide strong evidence of developmental toxicity (lower birth weight, biochemical changes and long-lasting developmental neurotoxicity) in the absence of maternal toxicity. No effect was observed on the implants, mortality and malformations (SIDS). Toluene did not affect rat fertility (IUCLID).
	Specific target organ toxicity - single exposure	Central nervous system, respiratory system, kidneys, liver.
	Specific target organ toxicity - repeated exposure	Central nervous system, kidneys, liver, ears, respiratory system.
Interactive effects	Alcohol may exacerbate the effects of overexposure, aspirin, acetaminophene, phenobarbital, styrene, benzene, methanol Ethyl acetate, carbon tetrachloride, 3-methyl cholanthrene.	
Other information	No additional information.	

12. Ecological information

Ecological toxicity	Aquatic Invertebrate - Shrimp - Crangon franciscorum	LC50	3.5 mg/L; 96 h (CAS no 108-88-3)
	Aquatic Invertebrate - Daphnia magna - Selenastrum capricornutum	EC50	1.3-3.7 mg/L; 96h (CAS no 1330-20-7)
	waterAquatic Invertebrate - Daphnia Magna, Water flea, fresh	EC50	0.7 mg/L; 48 h (solvant naphta CAS no 64742-89-8)
	Aquatic Plant - Algea, Selenastrum capricornutum	CESO	0.17 mg/L; 21 days (CAS no 64742-89-8)

Persistence	Data for Solvent naphtha (Petroleum), light aliphatic (CAS No. 64742-89-8): Moderately persistent in the environment.
Degradability	The product in air rapidly is decomposed by photochemical processes, mainly through oxidation by hydroxyl free radicals as well as some decomposition by direct photolysis. Half-life estimated to be about 5-7 days. Contains ingredients that are expected to be readily biodegradable (> 60% in 28 days) according to OECD TG 301F, but not meeting the 10-day window criterion.
Bioaccumulative potential	Potential to bioaccumulate is low. Bioconcentration Factor (BCF) in two fish species were 13 and 90 (toluène). log Kow of 2,65 (toluene). Bioconcentration Factor (BCF) of 6 to 23.4 for xylene depending to the isomer. Data for Solvent naphtha (Petroleum), light aliphatic (CAS No. 64742-89-8): Contains constituents with potential to bioaccumulate (log Kow from 2.1 to 6). Bioconcentration Factor (BCF) calculated from 105 to 1215.
Mobility in soil	The product will rapidly evaporate into the atmosphere because of its low soil absorption and its low solubility in water. The mixture is expected to have high to moderate mobility in soil.
Other adverse effects	Volatile organic chemical (VOC) compounds have the potential to form ozone and other air pollutants in near surface atmosphere (smog). This chemical does not deplete the ozone layer.

13. Disposal considerations

Container 	Important! Prevent waste generation. Use in full. DO NOT dispose residue in sewers, streams or drinking water supply. Residues and empty containers must be considered as hazardous waste. Non-use oils, organic solvents and wastes residues can be reprocessed (recycle) where there is a recovery program. Dispose via a licensed waste disposal contractor. Observe all federal, state/provincial and municipal regulations. If necessary consult the Department of Environment or the relevant authorities.

14. Transport information

UN Number	UN 1993
UN Proper Shipping Name	FLAMMABLE LIQUID, N.O.S. (toluene)
Environmental hazards	This material is not listed as a marine pollutant.
Special precautions for user	No information available.
TDG - Transportation of Dangerous Goods (Canada)	
Transport hazard class(es)	 Class 3
Packing group	III
Emergency response guidebook 2016	128
IMO/IMDG - International Maritime Transport	
Classification	Regulated UN 1993. FLAMMABLE LIQUID, N.O.S. (toluene). Class 3, PG II. Emergency schedules (EmS-No) F-E, S-E
IATA - International Air Transport Association	
Classification	Regulated UN 1993. FLAMMABLE LIQUID, N.O.S. (toluene). Class 3, PG II.

These transportation classifications are provided as a customer service. As the shipper YOU remain responsible for complying with all applicable laws and regulations, including proper transportation classification and packaging. In addition, if a domestic exemption exists, it is the responsibility of the shipper to define the application of it.

15. Regulatory information

Other regulations

CANADA :
- Canada DSL and NDSL:
All ingredients are listed in the Domestic Substances List (DSL).
- List of Toxic Substances Managed Under CEPA 1999 (annexe 1, Canadian Environmental Protection Act):
Solvent naphtha (Petroleum), light aliphatic (CAS No. 64742-89-8).
Toluene (CAS no. 108-88-3).
Xylenes (CAS no. 1330-20-7).
- Canadian National Pollutant Release Inventory Substances (NPRI):
Solvent naphtha (Petroleum), light aliphatic (CAS No. 64742-89-8).
Toluene (CAS no. 108-88-3).
Xylenes (CAS no. 1330-20-7).
- First Priority Substances List (PSL1):
Toluene (CAS no. 108-88-3).
Xylenes (CAS no. 1330-20-7).
UNITED STATE OF AMERICA:
- Toxic Substance Control Act (TSCA) :
All ingredients are listed in the TSCA Inventory.
- EPCRA Section 313 Toxic Chemicals:
Toluene (CAS no. 108-88-3).
Xylenes (CAS no. 1330-20-7).
- EPCRA Section 302/304 Extremely Hazardous Substances:
This material is not listed.
- CERCLA Hazardous Substances:
Toluene (CAS no. 108-88-3).
Xylenes (CAS no. 1330-20-7).
- Clean Air Act (CAA 112b) HAP - Hazardous Air Pollutants:
Xylenes (CAS no. 1330-20-7).
Toluene (CAS no. 108-88-3).
- CAA 112(r) Regulated Chemicals for Accidental Release Prevention:
This material is not listed.
- Clean Water Act (CWA) Priority Pollutants:
Toluene (CAS no. 108-88-3).
- Clean Water Act (CWA) 311 Hazardous Substances:
Xylenes (CAS no. 1330-20-7).
- California Proposition 65:
This product contains chemicals known to the State of California to cause birth defects or other reproductive harm.
Toluene (CAS no. 108-88-3).

HMIS **NFPA**

16. Other information

Date (YYYY-MM-DD) Mi 6:8. 2018-02-10

Version 01

Other information

REFERENCES:
- Haz-Map, Information on Hazardous Chemicals and Occupational Diseases, http://hazmap.nlm.nih.gov/index.php

- Service du répertoire toxicologique de la Commission des normes, de l'équité, de la santé et de la sécurité du travail (CNESST), http://www.reptox.csst.qc.ca
- IPCS INCHEM, Chemical Safety Information from Intergovernmental Organizations, Canadian Centre for Occupational Health and Safety (CCOHS), Copyright International Programme on Chemical Safety (IPCS), http://www.inchem.org
- NIOSH Pocket Guide to Chemical Hazards, Centers for Disease Control and Prevention, NIOSH Publications, 2007, http://www.cdc.gov/niosh/npg/npg.html
- OECD Existing Chemicals Database, Chemicals Screening Information DataSet (SIDS) for High Volume Chemicals, UNEP publications, http://webnet.oecd.org/HPV/UI/Search.aspx
- Toxicological Review, Integrated Risk Information System (IRIS), USA Environment Protection Agency, www.epa.gov/iris
- Database, Institut National de Recherche et de Sécurité, http://www.inrs.fr/accueil/produits/bdd.html

ACGIH: American Conference of Governmental Industrial Hygienists
AIHA: American Industrial Hygiene Association
HMIS: Hazardous Materials Identification System
NFPA: National Fire Protection Association
OSHA: Occupational Safety and Health Administration (USA)
NIOSH: National Institute for Occupational Safety and Health
NTP: National Toxicology Program
RSST: Règlement sur la santé et la sécurité du travail (Québec)
GHS: Globally Harmonized System
IARC: International Agency for Research on Cancer
IDLH: Immediately Dangerous to Life or Health
STEL: Short Term Exposure Limit (15 min)
TWA: Time Weighted Averages
WHMIS: Workplace Hazardous Materials Information System