## SAFETY DATA SHEET

	1. Product and Company Identification	1
Product identifier	TOTAL K.O BRAKE CLEANER	
Other means of identification	Not available	
Recommended use	Brake cleaner	
Recommended restrictions	None known.	
Manufacturer	D.L. INDUSTRIAL SUPPLIES ONTARIO, K0A 1MC Tel.: 1 888-214-3207 -Cell.: 613 884-3207 www.totalko.ca Emergency Phone only, 24 hours: (613) 996-6666 (CAN	
	2. Hazards Identification	
Physical hazards	Flammable liquids	Category 2
Health hazards	Skin corrosion/irritation	Category 2
	Toxic to reproduction	Category 2
	Specific target organ toxicity (Single exposure)	Category 3
	Specific target organ toxicity (Repeated exposure)	Category 2
	Aspiration hazard	Category 1
Environmental hazards	Not classified.	
OSHA defined hazards	Not classified.	
Label elements		
Signal word		
Hazard statement	Danger         Highly flammable liquid and vapor.         May be fatal if swallowed and enters airways.         Causes skin irritation.         May cause respiratory irritation         May cause drowsiness or dizziness         Suspected of damaging fertility or the unborn child         May cause damage to organs	
Hazard statement Precautionary statement	Highly flammable liquid and vapor. May be fatal if swallowed and enters airways. Causes skin irritation. May cause respiratory irritation May cause drowsiness or dizziness Suspected of damaging fertility or the unborn child	
Hazard statement	Highly flammable liquid and vapor. May be fatal if swallowed and enters airways. Causes skin irritation. May cause respiratory irritation May cause drowsiness or dizziness Suspected of damaging fertility or the unborn child	arks, open flames and other ignition ving equipment Use explosion-proof parking tools. Take precautionary st/fume/gas/mist/vapors/spray. Avoid horoughly after handling. Use only
Hazard statement Precautionary statement	<ul> <li>Highly flammable liquid and vapor.</li> <li>May be fatal if swallowed and enters airways.</li> <li>Causes skin irritation.</li> <li>May cause respiratory irritation</li> <li>May cause drowsiness or dizziness</li> <li>Suspected of damaging fertility or the unborn child</li> <li>May cause damage to organs</li> </ul> Obtain special instructions before use. Do not handle un and understood. Keep away from heat, hot surfaces, spa sources. No smoking. Ground/bond container and receive electrical/ventilating/lighting equipment. Use only non-sp measures against static discharge. Do not breathing dust/fume/gas/mist/vapor/spray. Wash hands t	arks, open flames and other ignition ving equipment Use explosion-proof parking tools. Take precautionary st/fume/gas/mist/vapors/spray. Avoid horoughly after handling. Use only ves/eye protection/face protection. doctor/ IF ON SKIN: Wash with plenty of Il contaminated clothing. Rinse skin with ir and keep confortable for breathing. IF II a POISON CENTER/doctor// ifyou feel Specific treatment (See on the label). Do al advice/attention. Take off contaminated
Hazard statement Precautionary statement Prevention	<ul> <li>Highly flammable liquid and vapor.</li> <li>May be fatal if swallowed and enters airways.</li> <li>Causes skin irritation.</li> <li>May cause respiratory irritation</li> <li>May cause drowsiness or dizziness</li> <li>Suspected of damaging fertility or the unborn child</li> <li>May cause damage to organs</li> <li>Obtain special instructions before use. Do not handle un and understood. Keep away from heat, hot surfaces, spa sources. No smoking. Ground/bond container and receive electrical/ventilating/lighting equipment. Use only non-sp measures against static discharge. Do not breathing dust/fume/gas/mist/vapor/spray. Wash hands t outdoors or in a well-ventilated area. Wear protective glo</li> <li>IF SWALLOWED: Immediately call a POISON CENTER/ water/ IF ON SKIN (or hair): Take off immediately a water/shower. IF INHALED: Remove person ti fresh a exposed or concerned: Get medical advice/attention. Ca unwell. Get medical advice/attention if you feel unwell. NOT induce vomiting. If skin irritation occurs: Get medical</li> </ul>	arks, open flames and other ignition ving equipment Use explosion-proof parking tools. Take precautionary st/fume/gas/mist/vapors/spray. Avoid horoughly after handling. Use only ves/eye protection/face protection. doctor/ IF ON SKIN: Wash with plenty of Il contaminated clothing. Rinse skin with ir and keep confortable for breathing. IF II a POISON CENTER/doctor// ifyou feel Specific treatment (See on the label). Do al advice/attention. Take off contaminated ppropriate media to extinguish.

# 3. Composition/Information on IngredientsChemical nameCommon name and synonymsCAS number%Naphta (Petroleum) light64742-49-090 - 100

Light naphtha (Petroleum) is composed a mixture of Cyclohexane # CAS 110-82-7 (< 3%), n-Hexane #CAS 110-54-3 (45-60 %)

### 4. First Aid Measures

	4. First Ald Measures
Inhalation	If symptoms develop move victim to fresh air. If symptoms persist, obtain medical attention. If on
Skin contact Eye contact	skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. If skin irritation or rash occurs: Get medical advice/attention. Specific treatment (see product label). Flush with cool water. Remove contact lenses, if applicable, and continue flushing. Obtain medical attention if irritation persists.
Ingestion	If swallowed: Immediately call a poison center/doctor. Do NOT induce vomiting. Direct contact with
Most important	eyes may cause temporary irritation. Skin irritation. May cause an allergic skin reaction. Dermatitis.
symptoms/effects, acute and delayed	Rash. May cause redness and pain.
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically. Thermal burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. Keep victim under observation. Symptoms may be delayed. Treat patient symptomatically.
General information	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. If you feel unwell, seek medical advice (show the label where possible). Show this safety data sheet to the doctor in attendance. Wash contaminated clothing before reuse. Keep away from sources of ignition. No smoking. Avoid contact with eyes and skin. Wear suitable protective clothing. Keep out of reach of children.
	5. Fire Fighting Measures
Suitable extinguishing media	Carbon dioxide (CO <sub>2</sub> ). Alcohol resistant foam. Dry chemical.
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical	Vapors may form explosive mixtures with air. Vapors may travel considerable distance to a source or ignition and flash back. During fire, gases hazardous to health may be formed. Firefighters should wear a self-contained breathing apparatus.
Special protective equipment and precautions for firefighters	Firefighters should wear full protective clothing including self contained breathing apparatus. Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Fire-fighting equipment/instructions	In case of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials.
General fire hazards Hazardous combustion	Flammable liquid and vapor.
products	May include and are not limited to: Oxides of carbon.
Explosion data	
Sensitivity to mechanical impact	Not available.
Sensitivity to static discharge	Not available.
	6. Accidental Release Measures
Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Keep out of low areas. Keep people away from and upwind of spill/leak. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Wear appropriate protective equipment and clothing during clean-up. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Avoid inhalation of vapors or mists. Ventilate closed spaces before entering them. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
Methods and materials for containment and cleaning up	Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material. Stop leak if you can do so without risk. Clean surface thoroughly to remove residual contamination. Pick up and discard. Prevent entry into waterways, sewers, basements or confined areas. For waste disposal, see section 13 of the SDS.
Environmental precautions	Do not contaminate water. Avoid discharge into drains, water courses or onto the ground.
	7. Handling and Storage
Precautions for safe handling	Vapors may form explosive mixtures with air. Do not handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. Do not smoke. Avoid contact with eyes, skin and clothing. Avoid breathing mist or vapor. Wear appropriate personal protective equipment. When using do not eat or drink. Wash thoroughly after handling. Use good industrial hygiene practices in handling this material. Avoid prolonged or repeated skin contact with this material. Keep container tightly closed.

Conditions for safe storage, including any incompatibilities

Store locked up. Keep away from heat, sparks and open flame. Prevent electrostatic charge build-up by using common bonding and grounding techniques. Store in a closed container away from incompatible materials.

Store in a cool, dry place out of direct sunlight. Store in a well-ventilated place. Store in cool place. Refrigeration recommended. Store away from incompatible materials (see Section 10 of the SDS). Keep in an area equipped with sprinklers. Keep out of reach of children. Do not store at temperatures above 120°F (49°C).

#### 8. Exposure Controls/Personal Protection

Occupational exposure limits			
US. ACGIH Threshold Limi	t Values		
Components	Туре	Value	Form
US. AIHA Workplace Envir	onmental Exposure Level (WEEL) Guides		
Components	Туре	Value	
Naphta (Light Petroleum)	Immediate danger to life or health	1100 ppm	
Biological limit values	No biological exposure limits noted for the ingredie	ent(s).	
Exposure guidelines	Chemicals listed in section 3 that are not listed he ACGIH or OSHA PEL.	Chemicals listed in section 3 that are not listed here do not have established limit values for ACGIH or OSHA PEL.	
Appropriate engineering controls	Not available.		
Individual protection measures	s, such as personal protective equipment		
Eye/face protection	Chemical splash-proof goggles.		
Skin protection			
Hand protection	Protective gloves against chemicals. Confirm	first with a kr	nown supplier. Wear
Other	appropriate chemical resistant clothing. As require	d by employer o	code.
Respiratory protection	Not normally required. Where exposure guideline NIOSH respirator.	levels may be e	exceeded, use an approved
Thermal hazards	Not applicable.		
General hygiene considerations	When using, do not eat, drink or smoke. Always ob washing after handling the material and before ear work clothing and protective equipment to remove clothing should not be allowed out of the workplac	ting, drinking, ar contaminants. (	nd/or smoking. Routinely wash

#### 9. Physical and Chemical Properties

Appearance	Liquid
Physical state	Liquid.
Form	Liquid.
Color	Clear
Odor	Sweet petroleum
Odor threshold	Not available.
рН	Not available.
Melting point/freezing point	< -75 °C
Initial boiling point and boiling range	Not available.
Pour point	Not available.
Specific gravity	Not available.
Partition coefficient (n-octanol/water)	Not available.
Flash point	-18 °C
Evaporation rate	8.3
Flammability (solid, gas)	Not applicable.
Upper/lower flammability or exp	blosive limits
Flammability limit - lower (%)	1.2
Flammability limit - upper (%)	7.3
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.

Vapor pressure	141.6 mmHg @ 20°C
Vapor density	3 @ 101 kPa
Relative density	0.67 @ 15.6 °C
Solubility(ies)	Nothing
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	0.42 cSt @ 40°C
Other information	

## 10. Stability and Reactivity

Reactivity	This product may react with oxidizing agents.
Possibility of hazardous reactions	Hazardous polymerization does not occur.
Chemical stability	Stable under recommended storage conditions.
Conditions to avoid	Avoid heat, sparks, open flames and other ignition sources. Avoid temperatures exceeding the flash point. Do not mix with other chemicals.
Incompatible materials	Acids. Oxidizers.
Hazardous decomposition products	May include and are not limited to: Oxides of carbon.

## 11. Toxicological Information

		Ination
Routes of exposure	Eye, Skin contact, Inhalation, Ingestion.	
Information on likely routes of e	exposure	
Ingestion	May be fatal if swallowed and enters airways.	
Inhalation	May be fatal if swallowed and enters airways.	
Skin contact	Causes skin irritation.	
Eye contact	Direct contact with eyes may cause temporary irritation.	
Symptoms related to the physical, chemical and toxicological characteristics	Skin irritation. May cause redness and pain. Dermatitis.	
Information on toxicological eff	ects	
Acute toxicity	May be fatal if swallowed and enters airways.	
Components	Species	Test Results
Naptha (petroleum) Light		
Acute Dermal LD50 Inhalation LC50 Oral	Rabbit Rat Rat	> 2000 mg/kg 73680 ppm (4H) > 4300 mg/kg
Skin corrosion/irritation	Causes skin irritation.	
Exposure minutes	Not available.	
Erythema value	Not available.	
Oedema value	Not available.	
Serious eye damage/eye irritation	Direct contact with eyes may cause tempo	orary irritation.
Corneal opacity value	Not available.	
Iris lesion value	Not available.	
Conjunctival reddening value	Not available.	
Conjunctival oedema value	Not available.	
Recover days	Not available.	

Respiratory or skin sensitization	n
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Respiratory sensitization	Not available.
Skin sensitization	Prolonged or repeated exposure can cause drying, defatting and dermatitis.
Germ cell mutagenicity	Non-hazardous by WHMIS/OSHA criteria.
Mutagenicity	Non-hazardous by WHMIS/OSHA criteria.
Carcinogenicity IARC Monographs. Overall I	Ingredients not listed below are not classified or listed by IARC, NTP, OSHA and ACGIH. Evaluation of Carcinogenicity
Reproductive toxicity	Non-hazardous by WHMIS/OSHA criteria.
Teratogenicity	Non-hazardous by WHMIS/OSHA criteria.
Specific target organ toxicity - single exposure	Not classified.

## 12. Ecological Information

Ecotoxicity	See below	
Components	Species	Test Results
Naptha (petroleum) Light	Daphnia Magna (48 H)	< 0.26 mg/l
Persistence and degradability	No data available.	
Bioaccumulative potential	No data available.	

Bioaccumulative potential	No data available.
Mobility in soil	No data available.
Mobility in general Other adverse effects	No available. No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal Considerations	
Disposal instructions	Review federal, state/provincial, and local government requirements prior to disposal. Collect and reclaim or dispose in sealed containers at licensed waste disposal site. This material and its container must be disposed of as hazardous waste. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.
Local disposal regulations	Dispose in accordance with all applicable regulations.
Hazardous waste code	The waste code should be assigned in discussion between the user, the producer and the waste disposal company.
Waste from residues / unused products	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
Contaminated packaging	Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

#### 14. Transport Information

U.S. Department of Transportation	tion (DOT)	•
Not regulated as dangerous		
Transportation of Dangerous		
Basic shipping requirements:		
UN number	UN 1993	
Proper shipping name	LIQUIDE INFLAMMABLE, N.S.A (Hexanes, distillat de pétrole)	
Hazard class	3	
Packing group	II	
Special provisions		3
Packaging exceptions		$\mathbf{v}$
	1 L or less : Limited Quantity	
	15. Regulatory Information	

Canadian federal regulations	This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the SDS contains all the information required by the Controlled Products Regulations.
WHMIS status	Controlled
WHMIS classification WHMIS labeling	Class B - Division 2 - Flammable Liquid, Class D - Division 2B



#### 16. Other Information

LEGEND	
Severe	4
Serious Moderate	3 2
Slight	2
Minimal	0

Disclaimer

HEALTH	2
FLAMMABILITY	3
PHYSICAL HAZARD	0
PERSONAL PROTECTION	x

The data contained in this material safety data sheet was obtained from sources that were technically accurate, reliable, and state of the art when this document was prepared. If data was unavailable to complete certain sections, the absence of that data is identified in this document. Because the supplier cannot know the exact circumstances during actual use of this product, other hazards, exposure scenarios, disposal considerations, and regulations may apply and it is the responsibility of the user to read and understand the product label and this document before use. Do not use the product for purposes other than those stated in Section 1.

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	Version 1.0
Further information	For an updated SDS, please contact the supplier/manufacturer listed on the first page of the document.
Prepared by	Unica Canada inc. Phone: (450) 655-8168
	This Safety Data Sheet was prepared to comply with the current OSHA Hazard Communication Standard (HCS) adoption of the Globally Harmonized System of Classification and Labeling of Chemicals (GHS).