

SAFETY DATA SHEET

1. Identification

Product Name GRAPHITE
Product Number TLG1059

Recommended use Not available. Á

Manufacturer/Importer/Supplier/Distributor information

 Company name
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 Address
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Telephone Ḉ €Î DÍNÎ HËÏ €Ì
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Emergency phone number .. COPWOOÁG ÁPI • ÇFHDÁJÎ ÉÎÎÎÎ

Supplier Not available.

2. Hazard(s) identification

Physical hazards Flammable aerosols Category 2

Reproductive toxicity

Gases under pressure

Skin corrosion/irritation

Serious eye damage/eye irritation

Germ cell mutagenicity

Category 1B

Carcinogenicity

Category 1A

Specific target organ toxicity, single exposure Category 3 narcotic effects

Specific target organ toxicity, repeated

exposure

Hazardous to the aquatic environment, acute Category 3

hazard

Hazardous to the aquatic environment, Category 3

long-term hazard

Label elements

Environmental hazards

Health hazards



Signal word Danger

Hazard statement Flammable aerosol. Contains gas under pressure; may explode if heated. Causes skin irritation.

Causes serious eye irritation. May cause drowsiness or dizziness. May cause genetic defects. May cause cancer. May damage fertility or the unborn child. May cause damage to organs through prolonged or repeated exposure. Harmful to aquatic life. Harmful to aquatic life with long

Category 1

Category 2

lasting effects.

Precautionary statement

Prevention

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not spray on an open flame or other ignition source. Do not pierce or burn, even after use. Do not breathe mist or vapor. Wash thoroughly after handling. Use only outdoors or in a well-ventilated area. Avoid release to the environment. Wear protective gloves/protective clothing/eye protection/face protection.

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IF ON SKIN: Wash with plenty of water. IF INHALED: Remove person to fresh air and keep Response

> comfortable for breathing. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. IF exposed or concerned: Get medical advice/attention. Call a POISON CENTER/doctor if you feel unwell. If skin irritation occurs: Get medical advice/attention. If eye irritation persists: Get medical advice/attention. Take off

contaminated clothing and wash it before reuse.

Storage Store in a well-ventilated place. Keep container tightly closed. Store locked up. Protect from

sunlight. Store in a well-ventilated place. Protect from sunlight. Do not expose to temperatures

exceeding 50°C/122°F.

Disposal Dispose of contents/container in accordance with local/regional/national/international regulations.

Other hazards

Supplemental information 81.48% of the mixture consists of component(s) of unknown acute hazards to the aquatic

environment. 81.48% of the mixture consists of component(s) of unknown long-term hazards to

the aquatic environment.

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
ACETONE		67-64-1	42.69
N-BUTANE		106-97-8	14.82
TOLUENE		108-88-3	12.84
PROPYLENE GLYCOL METHYL ETHER ACETATE		108-65-6	2.17
METHYL ETHYL KETONE		78-93-3	1.83
XYLENE		1330-20-7	1
1-METHYL-2-PYRROLIDONE		872-50-4	0.87
BUTYL BENZYL PHTHALATE		85-68-7	0.66
TITANIUM DIOXIDE		13463-67-7	0.5
CARBON BLACK		1333-86-4	0.26
ETHYLBENZENE		100-41-4	0.22
Other components below reportable	e levels		22.1467

All concentrations are in percent by weight (kg) unless ingredient is a gas. Gas concentrations are in percent by volume (I).

4. First-aid measures

Inhalation Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON

CENTER or doctor/physician if you feel unwell.

Remove contaminated clothing. Wash with plenty of soap and water. If skin irritation occurs: Get Skin contact

medical advice/attention. Wash contaminated clothing before reuse.

Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if Eye contact

present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.

Ingestion Not likely, due to the form of the product. In the unlikely event of swallowing contact a physician or

poison control center. Rinse mouth.

attendance.

Most important symptoms/effects, acute and

delayed

Indication of immediate medical attention and special

treatment needed **General information**

media

May cause drowsiness and dizziness. Headache. Nausea, vomiting. Severe eye irritation.

Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May cause redness and pain. Prolonged exposure may cause chronic effects.

Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.

IF exposed or concerned: Get medical advice/attention. If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s)

involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in

5. Fire-fighting measures

Suitable extinguishing media Unsuitable extinguishing

Water fog. Alcohol resistant foam. Dry chemical powder. Carbon dioxide (CO2).

Do not use water jet as an extinguisher, as this will spread the fire.

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Specific hazards arising from the chemical

Special protective equipment and precautions for firefighters

Fire fighting equipment/instructions

Specific methods

General fire hazards

Contents under pressure. Pressurized container may explode when exposed to heat or flame. During fire, gases hazardous to health may be formed.

Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.

In case of fire: Stop leak if safe to do so. Do not move cargo or vehicle if cargo has been exposed to heat. Move containers from fire area if you can do so without risk. Containers should be cooled with water to prevent vapor pressure build up. For massive fire in cargo area, use unmanned hose holder or monitor nozzles. If possible. If not, withdraw and let fire burn out.

Use standard firefighting procedures and consider the hazards of other involved materials. Move containers from fire area if you can do so without risk. In the event of fire and/or explosion do not breathe fumes.

Flammable aerosol. Contents under pressure. Pressurized container may explode when exposed to heat or flame.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. Many gases are heavier than air and will spread along ground and collect in low or confined areas (sewers, basements, tanks). Wear appropriate protective equipment and clothing during clean-up. Do not breathe mist or vapor. Emergency personnel need self-contained breathing equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. 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

Refer to attached safety data sheets and/or instructions for use. Stop leak if you can do so without risk. Move the cylinder to a safe and open area if the leak is irreparable. Isolate area until gas has dispersed. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material. Prevent product from entering drains. Cover with plastic sheet to prevent spreading. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. For waste disposal, see section 13 of the SDS.

Environmental precautions

Avoid release to the environment. Inform appropriate managerial or supervisory personnel of all environmental releases. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

Precautions for safe handling

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Pressurized container: Do not pierce or burn, even after use. Do not use if spray button is missing or defective. Do not spray on a naked flame or any other incandescent material. Do not smoke while using or until sprayed surface is thoroughly dry. Do not cut, weld, solder, drill, grind, or expose containers to heat, flame, sparks, or other sources of ignition. All equipment used when handling the product must be grounded. Close valve after each use and when empty. Protect cylinders from physical damage; do not drag, roll, slide, or drop. When moving cylinders, even for short distances, use a cart (trolley, hand truck, etc.) designed to transport cylinders. Suck back of water into the container must be prevented. Do not allow backfeed into the container. Purge air from system before introducing gas. Use only properly specified equipment which is suitable for this product, its supply pressure and temperature. Contact your gas supplier if in doubt. Do not re-use empty containers. Do not breathe mist or vapor. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. Pregnant or breastfeeding women must not handle this product. Should be handled in closed systems, if possible. Use only in well-ventilated areas. Wear appropriate personal protective equipment. Avoid release to the environment. Observe good industrial hygiene practices.

Conditions for safe storage, including any incompatibilities

Level 3 Aerosol.

Store locked up. Pressurized container. Protect from sunlight and do not expose to temperatures exceeding 50°C/122°F. Do not puncture, incinerate or crush. Do not handle or store near an open flame, heat or other sources of ignition. This material can accumulate static charge which may cause spark and become an ignition source. Cylinders should be stored upright, with valve protection cap in place, and firmly secured to prevent falling or being knocked over. Stored containers should be periodically checked for general condition and leakage. Store in a well-ventilated place. Store away from incompatible materials (see Section 10 of the SDS).

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8. Exposure controls/personal protection

Occupational exposure limits

HIC	ACCIH	Threshold	l l imit	Value
US.	ACGIR	Inresnoic	ı Limit	values

Components	Туре	Value	Form
ACETONE (CAS 67-64-1)	STEL	750 ppm	
	TWA	500 ppm	
CARBON BLACK (CAS 1333-86-4)	TWA	3 mg/m3	Inhalable fraction.
ETHYLBENZENE (CAS 100-41-4)	TWA	20 ppm	
METHYL ETHYL KETONE (CAS 78-93-3)	STEL	300 ppm	
	TWA	200 ppm	
N-BUTANE (CAS 106-97-8)	STEL	1000 ppm	
TITANIUM DIOXIDE (CAS 13463-67-7)	TWA	10 mg/m3	
TOLUENE (CAS 108-88-3)	TWA	20 ppm	
XYLENE (CAS 1330-20-7)	STEL	150 ppm	
·	TWA	100 ppm	
Canada Alberta OELa (Occupation	nal Haalth & Safaty Cada Sal	hadula 1 Tabla 2)	

Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2)

Components	Туре	Value	
ACETONE (CAS 67-64-1)	STEL	1800 mg/m3	
		750 ppm	
	TWA	1200 mg/m3	
		500 ppm	
CARBON BLACK (CAS 1333-86-4)	TWA	3.5 mg/m3	
ETHYLBENZENE (CAS 100-41-4)	STEL	543 mg/m3	
		125 ppm	
	TWA	434 mg/m3	
		100 ppm	
METHYL ETHYL KETONE (CAS 78-93-3)	STEL	885 mg/m3	
,		300 ppm	
	TWA	590 mg/m3	
		200 ppm	
N-BUTANE (CAS 106-97-8)	TWA	1000 ppm	
TITANIUM DIOXIDE (CAS 13463-67-7)	TWA	10 mg/m3	
TOLUENE (CAS 108-88-3)	TWA	188 mg/m3	
,		50 ppm	
XYLENE (CAS 1330-20-7)	STEL	651 mg/m3	
,		150 ppm	
	TWA	434 mg/m3	
		100 ppm	

Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended)

Components	Туре	Value	Form
ACETONE (CAS 67-64-1)	STEL	500 ppm	
	TWA	250 ppm	
CARBON BLACK (CAS 1333-86-4)	TWA	3 mg/m3	Inhalable
ETHYLBENZENE (CAS 100-41-4)	TWA	20 ppm	
METHYL ETHYL KETONE (CAS 78-93-3)	STEL	100 ppm	
,	TWA	50 ppm	
N-BUTANE (CAS 106-97-8)	STEL	750 ppm	
	TWA	600 ppm	

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Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended)

Safety Regulation 296/97, as amende Components	Туре	Value	Form
PROPYLENE GLYCOL METHYL ETHER ACETATE (CAS 108-65-6)	STEL	75 ppm	
,	TWA	50 ppm	
TITANIUM DIOXIDE (CAS	TWA	3 mg/m3	Respirable fraction.
13463-67-7)		•	•
		10 mg/m3	Total dust.
ΓOLUENE (CAS 108-88-3)	TWA	20 ppm	
XYLENE (CAS 1330-20-7)	STEL	150 ppm	
	TWA	100 ppm	
Canada. Manitoba OELs (Reg. 217/20	006, The Workplace Safety A	and Health Act)	
Components	Туре	Value	Form
ACETONE (CAS 67-64-1)	STEL	750 ppm	
10L10NL (CAS 07-04-1)	TWA	500 ppm	
CARRON DI ACIVICACI		The state of the s	labeleble freeties
CARBON BLACK (CAS 1333-86-4)	TWA	3 mg/m3	Inhalable fraction.
ETHYLBENZENE (CAS	TWA	20 ppm	
100-41-4)	1 4 4 / 1	20 ρριτί	
METHYL ETHYL KETONE	STEL	300 ppm	
CAS 78-93-3)		FF	
	TWA	200 ppm	
N-BUTANE (CAS 106-97-8)	STEL	1000 ppm	
TITANIUM DIOXIDE (CAS	TWA	10 mg/m3	
13463-67-7)		•	
ΓOLUENE (CAS 108-88-3)	TWA	20 ppm	
XYLENE (CAS 1330-20-7)	STEL	150 ppm	
	TWA	100 ppm	
Canada. Ontario OELs. (Control of E	xposure to Biological or Che	emical Agents)	
Components	Type	Value	
I-METHYL-2-PYRROLIDO	TWA	400 mg/m3	
NE (CAS 872-50-4)		-	
ACETONE (CAS 67-64-1)	STEL	750 ppm	
	TWA	500 ppm	
CARBON BLACK (CAS	TWA	3.5 mg/m3	
1333-86-4)	OTE:	405	
ETHYLBENZENE (CAS	STEL	125 ppm	
100-41-4)	T\\/^	100	
METUVI ETUVI VETONIC	TWA	100 ppm	
METHYL ETHYL KETONE (CAS 78-93-3)	STEL	300 ppm	
OAO 10-30-01	TWA	200 ppm	
N-BUTANE (CAS 106-97-8)	TWA	800 ppm	
	TWA	270 mg/m3	
PROPYLENE GLYCOL		£10 IIIU/III3	
		3	
METHYL ETHER ACETATE		3	
METHYL ETHER ACETATE		50 ppm	
METHYL ETHER ACETATE CAS 108-65-6)	TWA	-	
METHYL ETHER ACETATE CAS 108-65-6) FITANIUM DIOXIDE (CAS		50 ppm	
METHYL ETHER ACETATE CAS 108-65-6) FITANIUM DIOXIDE (CAS 13463-67-7)		50 ppm	
METHYL ETHER ACETATE CAS 108-65-6) FITANIUM DIOXIDE (CAS 13463-67-7) FOLUENE (CAS 108-88-3)	TWA	50 ppm 10 mg/m3	
METHYL ETHER ACETATE CAS 108-65-6) FITANIUM DIOXIDE (CAS 13463-67-7) FOLUENE (CAS 108-88-3)	TWA TWA	50 ppm 10 mg/m3 20 ppm	
METHYL ETHER ACETATE (CAS 108-65-6) TITANIUM DIOXIDE (CAS 13463-67-7) TOLUENE (CAS 108-88-3) XYLENE (CAS 1330-20-7) Canada. Quebec OELs. (Ministry of L	TWA TWA STEL TWA	50 ppm 10 mg/m3 20 ppm 150 ppm 100 ppm	nvironment) Form
PROPYLENE GLYCOL METHYL ETHER ACETATE (CAS 108-65-6) TITANIUM DIOXIDE (CAS 13463-67-7) TOLUENE (CAS 108-88-3) XYLENE (CAS 1330-20-7) Canada. Quebec OELs. (Ministry of L Components ACETONE (CAS 67-64-1)	TWA TWA STEL TWA .abor - Regulation Respectir	50 ppm 10 mg/m3 20 ppm 150 ppm 100 ppm	
METHYL ETHER ACETATE (CAS 108-65-6) FITANIUM DIOXIDE (CAS 13463-67-7) FOLUENE (CAS 108-88-3) XYLENE (CAS 1330-20-7) Canada. Quebec OELs. (Ministry of L	TWA TWA STEL TWA abor - Regulation Respectin	50 ppm 10 mg/m3 20 ppm 150 ppm 100 ppm ng the Quality of the Work Er Value	
METHYL ETHER ACETATE (CAS 108-65-6) TITANIUM DIOXIDE (CAS 13463-67-7) TOLUENE (CAS 108-88-3) XYLENE (CAS 1330-20-7) Canada. Quebec OELs. (Ministry of L	TWA TWA STEL TWA abor - Regulation Respectin	50 ppm 10 mg/m3 20 ppm 150 ppm 100 ppm ng the Quality of the Work Er Value 2380 mg/m3	

Components		Type			Value		Form	
CARBON BLACK (CAS 1333-86-4)	-	TWA			3.5 mg/m3			
ETHYLBENZENE (CAS 100-41-4)	;	STEL			543 mg/m3	3		
•					125 ppm			
	-	TWA			434 mg/m3	3		
					100 ppm			
METHYL ETHYL KETONE (CAS 78-93-3)	;	STEL			300 mg/m3	3		
					100 ppm			
	·	TWA			150 mg/m3	3		
N. D. ITANIE (OAO 400 07 0)		T\A/A			50 ppm	.0		
N-BUTANE (CAS 106-97-8)		TWA			1900 mg/m 800 ppm	13		
TITANIUM DIOXIDE (CAS	-	TWA			10 mg/m3		Total dust.	
13463-67-7)					io ing/iiio		Total adot.	
TOLUENE (CAS 108-88-3)	-	TWA			188 mg/m3	3		
100 = 11= (2 · 2 · 2 · 2 · 2 · 2 · 2 · 2 · 2 · 2		~ -			50 ppm			
XYLENE (CAS 1330-20-7)	;	STEL			651 mg/m3	3		
	-	TWA			150 ppm 434 mg/m3	1		
		1 V V A			434 mg/ms 100 ppm	,		
US. OSHA Table Z-1 Limits	for Air Contamir	nante	(29 CFR 1910 100		. CC PPIII			
Components		Type	\ O	•	Value		Form	
ACETONE (CAS 67-64-1)	I	PEL			2400 mg/m	13		
OADDON BLACK (CAC		DE:			1000 ppm			
CARBON BLACK (CAS 1333-86-4)	l	PEL			3.5 mg/m3			
ETHYLBENZENE (CAS 100-41-4)	ı	PEL			435 mg/m3	3		
,					100 ppm			
METHYL ETHYL KETONE (CAS 78-93-3)	1	PEL			590 mg/m3	3		
					200 ppm			
TITANIUM DIOXIDE (CAS 13463-67-7)	l	PEL			15 mg/m3		Total dust.	
XYLENE (CAS 1330-20-7)		PEL			435 mg/m3	3		
(100 ppm			
US. OSHA Table Z-2 (29 CF	R 1910.1000)							
Components	·	Туре			Value			
TOLUENE (CAS 108-88-3)		Ceilin	g		300 ppm		<u> </u>	
	•	TWA			200 ppm			
ogical limit values								
ACGIH Biological Exposure			Datamateria	0	.			
	/alue		Determinant	Specimen	Samp	ling Tim	e 	
1-METHYL-2-PYRROLIDO 1 NE (CAS 872-50-4)	100 mg/l		5-Hydroxy-N-m ethyl-2-pyrrolid	Urine		*		
ACETONE (CAS 67-64-1) 5	50 mg/l		one Acetone	Urine		*		
).15 g/g		Sum of	Creatinine	in	*		
100-41-4)	<u> </u>		mandelic acid	urine				
			and					
			phenylglyoxylic acid					
METHYL ETHYL KETONE 2	2 mg/l		MEK	Urine		*		
(CAS 78-93-3)	-							
	1 2 mala		o-Cresol, with	Creatinine	ın	*		
TOLUENE (CAS 108-88-3) (J.5 mg/g							
•	0.5 mg/l		hydrolysis Toluene	urine Urine		*		

Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment)

Components	Value	Determinant	Specimen	Sampling Time
	0.02 mg/l	Toluene	Blood	*
XYLENE (CAS 1330-20-7)	1.5 g/g	Methylhippuric acids	Creatinine in urine	*

^{* -} For sampling details, please see the source document.

Exposure guidelines

Canada - Alberta OELs: Skin designation

TOLUENE (CAS 108-88-3) Can be absorbed through the skin.

Canada - Quebec OELs: Skin designation

TOLUENE (CAS 108-88-3) Can be absorbed through the skin.

Canada - Saskatchewan OELs: Skin designation

TOLUENE (CAS 108-88-3) Can be absorbed through the skin.

Appropriate engineering

controls

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eye wash facilities and emergency shower must be available when handling this product.

Individual protection measures, such as personal protective equipment

Eve/face protection Wear safety glasses with side shields (or goggles).

Skin protection

Hand protection Wear appropriate chemical resistant gloves. Suitable gloves can be recommended by the glove

supplier.

Other Wear appropriate chemical resistant clothing.

Respiratory protection If permissible levels are exceeded use NIOSH mechanical filter / organic vapor cartridge or an

air-supplied respirator.

Thermal hazards Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations

Observe any medical surveillance requirements. When using do not smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties

Appearance

Physical state Liquid.

Aerosol. Liquefied gas. **Form**

Color Not available. Not available. Odor **Odor threshold** Not available. Not available.

Melting point/freezing point -305.68 °F (-187.6 °C) estimated Initial boiling point and boiling -43.78 °F (-42.1 °C) estimated

range

-156.0 °F (-104.4 °C) estimated Flash point

Evaporation rate Not available. Flammability (solid, gas) Not applicable. Upper/lower flammability or explosive limits

Flammability limit - lower

1.3 % estimated

Flammability limit - upper

12.8 % estimated

Not available. Explosive limit - lower (%) Not available. Explosive limit - upper (%)

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Vapor pressure 2275.22 hPa estimated

Vapor density Not available.

Relative density Not available.

Solubility(ies)

Solubility (water) Not available.

Partition coefficient Not available.

(n-octanol/water)

Auto-ignition temperature 550 °F (287.78 °C) estimated

Decomposition temperature Not available. **Viscosity** Not available.

Other information

Density 6.03 lbs/gal Explosive properties Not explosive.

Flammability class Flammable IA estimated
Heat of combustion (NFPA 30.37 kJ/g estimated

30B)

Oxidizing properties Not oxidizing.

Percent volatile 91.7 Specific gravity 0.72

VOC 582.04 g/l Regulatory

354.17 g/l Material 2.96 lbs/gal Material 4.86 lbs/gal Regulatory

10. Stability and reactivity

ReactivityThe product is stable and non-reactive under normal conditions of use, storage and transport.

Chemical stability Material is stable under normal conditions.

Possibility of hazardous Hazardous polymerization does not occur.

reactions

Conditions to avoid Heat. Avoid temperatures exceeding the flash point. Contact with incompatible materials.

Incompatible materials Strong oxidizing agents. Nitrates. Halogens. Fluorine. Chlorine.

Hazardous decomposition

products

No hazardous decomposition products are known.

11. Toxicological information

Information on likely routes of exposure

Inhalation May cause damage to organs through prolonged or repeated exposure by inhalation. May cause

drowsiness and dizziness. Headache. Nausea, vomiting.

Skin contact Causes skin irritation.

Eye contact Causes serious eye irritation.

Ingestion Expected to be a low ingestion hazard.

Symptoms related to the physical, chemical and toxicological characteristics

May cause drowsiness and dizziness. Headache. Nausea, vomiting. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May

cause redness and pain.

Information on toxicological effects

Acute toxicity Narcotic effects.

Components Species Test Results

1-METHYL-2-PYRROLIDONE (CAS 872-50-4)

Acute Dermal

LD50 Rabbit 8000 mg/kg

Oral LD50

Mouse 5130 mg/kg

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Components	Species	Test Results
	Rat	3914 mg/kg
		4.2 ml/kg
ACETONE (CAS 67-64-1)		
Acute		
Dermal		
LD50	Rabbit	> 15800 mg/kg
Inhalation		
LC50	Rat	76 mg/l, 4 Hours
Oral		
LD50	Mouse	3000 mg/kg
	Rat	5800 mg/kg
BUTYL BENZYL PHTHALAT	TF (CAS 85-68-7)	3 3
Acute	. = (0.10 00 00 1)	
Dermal Dermal		
LD50	Mouse	6700 mg/kg
	Rat	6700 mg/kg
Oral		5. 55 mg/mg
LD50	Rat	13500 mg/kg
CARBON BLACK (CAS 133		
Acute	0-00 -4)	
Oral		
LD50	Rat	> 8000 mg/kg
ETHYLBENZENE (CAS 100		555599
Acute Acute	71 7)	
<u>Dermal</u>		
LD50	Rabbit	17800 mg/kg
Oral		3 3
LD50	Rat	3500 mg/kg
METHYL ETHYL KETONE (CAS 78-93-3)	
Acute	J. 10 10 00 0,	
Dermal Dermal		
LD50	Rabbit	> 8000 mg/kg
Inhalation		• •
LC50	Mouse	11000 ppm, 45 Minutes
	Rat	11700 ppm, 4 Hours
Oral		ээ рр,
LD50	Mouse	670 mg/kg
2000	Rat	2300 - 3500 mg/kg
NI DI ITANIE (CAS 406 07 0)		2000 - 3000 Hig/kg
N-BUTANE (CAS 106-97-8)		
<u>Acute</u> Inhalation		
LC50	Mouse	680 mg/l, 2 Hours
2000	Rat	
TOLLIENE (040 400 00 0)	rai	658 mg/l, 4 Hours
TOLUENE (CAS 108-88-3)		
Acute		
Dermal LD50	Rabbit	12124 malka
LD00	Nauvil	12124 mg/kg
		14.1 ml/kg

Components	Species	Test Results
Inhalation		
LC50	Mouse	5320 ppm, 8 Hours
		400 ppm, 24 Hours
	Rat	26700 ppm, 1 Hours
		12200 ppm, 2 Hours
		8000 ppm, 4 Hours
Oral		
LD50	Rat	2.6 g/kg
XYLENE (CAS 1330-20-7)		
<u>Acute</u>		
Dermal		
LD50	Rabbit	> 43 g/kg
Inhalation		
LC50	Mouse	3907 mg/l, 6 Hours
	Rat	6350 mg/l, 4 Hours
Oral		
LD50	Mouse	1590 mg/kg
	Rat	3523 - 8600 mg/kg

^{*} Estimates for product may be based on additional component data not shown.

Skin corrosion/irritation Causes skin irritation.

Serious eye damage/eye

irritation

Causes serious eye irritation.

Respiratory or skin sensitization Canada - Alberta OELs: Irritant

> TITANIUM DIOXIDE (CAS 13463-67-7) Irritant

Not a respiratory sensitizer. Respiratory sensitization

This product is not expected to cause skin sensitization. Skin sensitization

May cause genetic defects. Germ cell mutagenicity

Carcinogenicity May cause cancer.

ACGIH Carcinogens

ACETONE (CAS 67-64-1) A4 Not classifiable as a human carcinogen.

CARBON BLACK (CAS 1333-86-4) A3 Confirmed animal carcinogen with unknown relevance to

humans.

ETHYLBENZENE (CAS 100-41-4) A3 Confirmed animal carcinogen with unknown relevance to

humans.

TITANIUM DIOXIDE (CAS 13463-67-7) A4 Not classifiable as a human carcinogen. **TOLUENE (CAS 108-88-3)** A4 Not classifiable as a human carcinogen. A4 Not classifiable as a human carcinogen. XYLENE (CAS 1330-20-7)

Canada - Manitoba OELs: carcinogenicity

ACETONE (CAS 67-64-1) Not classifiable as a human carcinogen.

CARBON BLACK, INHALABLE FRACTION (CAS Confirmed animal carcinogen with unknown relevance to humans.

1333-86-4)

ETHYL BENZENE (CAS 100-41-4) Confirmed animal carcinogen with unknown relevance to humans.

TITANIUM DIOXIDE (CAS 13463-67-7) Not classifiable as a human carcinogen. **TOLUENE (CAS 108-88-3)** Not classifiable as a human carcinogen. XYLENE (O, M AND P ISOMERS) (CAS 1330-20-7) Not classifiable as a human carcinogen.

IARC Monographs. Overall Evaluation of Carcinogenicity

BUTYL BENZYL PHTHALATE (CAS 85-68-7) 3 Not classifiable as to carcinogenicity to humans.

CARBON BLACK (CAS 1333-86-4) 2B Possibly carcinogenic to humans. ETHYLBENZENE (CAS 100-41-4) 2B Possibly carcinogenic to humans. 2B Possibly carcinogenic to humans. TITANIUM DIOXIDE (CAS 13463-67-7)

TOLUENE (CAS 108-88-3) 3 Not classifiable as to carcinogenicity to humans. XYLENE (CAS 1330-20-7) 3 Not classifiable as to carcinogenicity to humans.

Reproductive toxicityComponents in this product have been shown to cause birth defects and reproductive disorders in

laboratory animals. May damage fertility or the unborn child.

Specific target organ toxicity -

single exposure

May cause drowsiness and dizziness.

Specific target organ toxicity -

repeated exposure

May cause damage to organs through prolonged or repeated exposure.

Aspiration hazard Not an aspiration hazard.

Chronic effects May cause damage to organs through prolonged or repeated exposure. Prolonged inhalation may

be harmful. Prolonged exposure may cause chronic effects.

12. Ecological information

Ecotoxicity Harmful to aquatic life with long lasting effects.

Components		Species	Test Results
ACETONE (CAS 67-64-1)			
Aquatic			
Crustacea	EC50	Water flea (Daphnia magna)	10294 - 17704 mg/l, 48 hours
Fish	LC50	Rainbow trout,donaldson trout (Oncorhynchus mykiss)	4740 - 6330 mg/l, 96 hours
BUTYL BENZYL PHTHALAT	ΓΕ (CAS 85-68-7)		
Aquatic			
Crustacea	EC50	Water flea (Daphnia magna)	> 0.96 mg/l, 48 hours
Fish	LC50	Shiner perch (Cymatogaster aggregata)	0.47 - 0.56 mg/l, 96 hours
ETHYLBENZENE (CAS 100	-41-4)		
Aquatic			
Crustacea	EC50	Water flea (Daphnia magna)	1.37 - 4.4 mg/l, 48 hours
Fish	LC50	Fathead minnow (Pimephales promelas)	7.5 - 11 mg/l, 96 hours
METHYL ETHYL KETONE (CAS 78-93-3)		
Aquatic			
Crustacea	EC50	Water flea (Daphnia magna)	4025 - 6440 mg/l, 48 hours
Fish	LC50	Sheepshead minnow (Cyprinodon variegatus)	> 400 mg/l, 96 hours
TITANIUM DIOXIDE (CAS 1	3463-67-7)		
Aquatic			
Crustacea	EC50	Water flea (Daphnia magna)	> 1000 mg/l, 48 hours
Fish	LC50	Mummichog (Fundulus heteroclitus)	> 1000 mg/l, 96 hours
TOLUENE (CAS 108-88-3)			
Aquatic			
Crustacea	EC50	Water flea (Daphnia magna)	5.46 - 9.83 mg/l, 48 hours
Fish	LC50	Coho salmon,silver salmon (Oncorhynchus kisutch)	8.11 mg/l, 96 hours
XYLENE (CAS 1330-20-7)			
Aquatic			
Fish	LC50	Bluegill (Lepomis macrochirus)	7.711 - 9.591 mg/l, 96 hours

^{*} Estimates for product may be based on additional component data not shown.

Persistence and degradability No data is available on the degradability of this product.

Bioaccumulative potential

1-METHYL-2-PYRROLIDONE	-0.54
ACETONE	-0.24
BUTYL BENZYL PHTHALATE	4.91
ETHYLBENZENE	3.15
METHYL ETHYL KETONE	0.29
N-BUTANE	2.89

Material name: GRAPHITE TLG-1059

Partition coefficient n-octanol / water (log Kow)

TOLUENE 2.73 **XYLENE** 3.12 - 3.2

Mobility in soil No data available.

Other adverse effects 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 Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Contents

> under pressure. Do not puncture, incinerate or crush. 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.

Dispose in accordance with all applicable regulations. Local disposal regulations

The waste code should be assigned in discussion between the user, the producer and the waste Hazardous waste code

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).

Since emptied containers may retain product residue, follow label warnings even after container is Contaminated packaging

emptied. Empty containers should be taken to an approved waste handling site for recycling or

disposal. Do not re-use empty containers.

14. Transport information

TDG

UN number UN1950

Aerosols, Flammable **UN** proper shipping name

Transport hazard class(es)

Class 2.1 Subsidiary risk

Packing group Not applicable. **Environmental hazards** Not available.

Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

IATA

UN1950 **UN number**

UN proper shipping name

Transport hazard class(es)

Aerosols, Flammable

Class 2.1 Subsidiary risk 2.1 Label(s)

Packing group Not applicable.

Environmental hazards

Other information

Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

Passenger and cargo

aircraft

Allowed.

Cargo aircraft only Allowed.

IMDG

UN number UN1950

Aerosols, Flammable **UN** proper shipping name

Transport hazard class(es)

2.1 Class Subsidiary risk Label(s) 2.1

Not applicable. Packing group

Environmental hazards

Marine pollutant No.

Not available. **EmS**

Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

Material name: GRAPHITE TLG-1059 09059 696981 604 Version #: 01 Issue date: 05-23-2018 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not established.

IATA; IMDG; TDG



General information

Avoid transport on vehicles where the load space is not separated from the driver's compartment. Ensure vehicle driver is aware of the potential hazards of the load and knows what to do in the event of an accident or an emergency. Before transporting product containers: Ensure that containers are firmly secured. Ensure cylinder valve is closed and not leaking. Ensure valve outlet cap nut or plug (where provided) is correctly fitted. Ensure valve protection device (where provided) is correctly fitted. Ensure adequate ventilation. Ensure compliance with applicable regulations.

15. Regulatory information

Canadian regulations

Controlled Drugs and Substances Act

Not regulated.

Export Control List (CEPA 1999, Schedule 3)

Not listed.

Greenhouse Gases

Not listed.

Precursor Control Regulations

ACETONE (CAS 67-64-1)

METHYL ETHYL KETONE (CAS 78-93-3)

TOLUENE (CAS 108-88-3)

Class B

Class B

International regulations

Stockholm Convention

Not applicable.

Rotterdam Convention

Not applicable.

Kyoto protocol

Not applicable.

Montreal Protocol

Not applicable.

Basel Convention

Not applicable.

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	No
Canada	Domestic Substances List (DSL)	No
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	No
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	No
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	No

Material name: GRAPHITE TLG-1059 09059 696981 604 Version #: 01 Issue date: 05-23-2018 Country(s) or region Inventory name On inventory (yes/no)*

New Zealand New Zealand Inventory No.

Philippines Philippine Inventory of Chemicals and Chemical Substances No

(PICCS)

United States & Puerto Rico Toxic Substances Control Act (TSCA) Inventory

No

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other Information

Issue date 05-23-2018

Version # 01

Disclaimer

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Material name: GRAPHITE TLG-1059 SDS CANADA