## Safety Data Sheet



Section 1: Identification of the Substance/Mixture and of the Company/Undertaking

## **1.1 Product identifier**

Product Name • SLIP Plate Aerosol

## 1.2 Relevant identified uses of the substance or mixture and uses advised against

Relevant identified use(s) Dry film lubricant

## **1.3 Details of the supplier of the safety data sheet**

Manufacturer

Southwestern Graphite (Division of Asbury Carbons) 2564 Highway 12 DeQuincy, LA 70633 (337) 786-5905

Cummings Moore Graphite (Division of Asbury Carbons) 1646 N. Green Avenue Detroit, MI 48209 (313) 841-1615

## 1.4 Emergency telephone number

Manufacturer

Manufacturer

US: 1-800-255-3924; International: +01-813-248-0585; China: 400-120-0751; Brazil: 0-800-591-6042; India: 000-800-100-4086; Mexico: 01-800-099-0731 ChemTel contract number: MIS0001931 (collect calls accepted)

## Section 2: Hazards Identification

## EU/EEC

According to Regulation (EC) No 1272/2008 (CLP)/REACH 1907/2006 [amended by 453/2010] According to EU Directive 67/548/EEC (DSD) or 1999/45/EC (DPD)

## 2.1 Classification of the substance or mixture

CLP	I Flammable Aerosols 1 - H222 Eye Irritation 2 - H319 Specific Target Organ Toxicity Single Exposure 3: Narcotic Effects - H336
	EUH066
DSD/DPD	<ul> <li>Extremely Flammable (F+) Irritant (Xi)</li> </ul>
	R12, R36, R66, R67

## 2.2 Label Elements

CLP



Hazard statements H222 - Extremely flammable aerosol

	H319 - Causes serious eye irritation H336 - May cause drowsiness or dizziness
	EUH066 - Repeated exposure may cause skin dryness or cracking.
Precautionary statements	
Prevention	<ul> <li>P210 - Keep away from heat, sparks, open flames and/or hot surfaces No smoking.</li> <li>P211 - Do not spray on an open flame or other ignition source.</li> <li>P251 - Pressurized container: Do not pierce or burn, even after use.</li> <li>P261 - Avoid breathing mist/vapours/spray.</li> <li>P264 - Wash thoroughly after handling.</li> <li>P271 - Use only outdoors or in a well-ventilated area.</li> <li>P280 - Wear eye/face protection , .</li> </ul>
Response	
	comfortable for breathing. P312 - Call a POISON CENTER or doctor/physician if you feel unwell. P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337+P313 - If eye irritation persists: Get medical advice/attention.
Storage/Disposal	<ul> <li>P403+P233 - Store in a well-ventilated place. Keep container tightly closed.</li> <li>P410+P412 - Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F.</li> <li>P405 - Store locked up.</li> <li>P501 - Dispose of content and/or container in accordance with local, regional,</li> </ul>
	national, and/or international regulations.
DSD/DPD	
Risk phrases	<ul> <li>R12 - Extremely flammable.</li> <li>R36 - Irritating to eyes.</li> <li>R66 - Repeated exposure may cause skin dryness or cracking.</li> <li>R67 - Vapours may cause drowsiness and dizziness.</li> </ul>
Safety phrases	<ul> <li>S9 - Keep container in a well ventilated place</li> <li>S16 - Keep away from sources of ignition - No Smoking.</li> <li>S26 - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.</li> </ul>
2.3 Other Hazards	
CLP	<ul> <li>According to Regulation (EC) No. 1272/2008 (CLP) this material is considered hazardous.</li> </ul>
DSD/DPD	According to European Directive 1999/45/EC this material is considered dangerous.
United States (US)	

## United States (US)

According to OSHA 29 CFR 1910.1200 HCS

## 2.1 Classification of the substance or mixture

 OSHA HCS 2012
 Flammable Aerosols 1 - H222 Eye Irritation 2 - H319 Specific Target Organ Toxicity Single Exposure 3: Narcotic Effects - H336 Germ Cell Mutagenicity 1B - H340 Reproductive Toxicity 2 - H361 Specific Target Organ Toxicity Repeated Exposure 1 - H372 Specific Target Organ Toxicity Repeated Exposure 2 - H373

## 2.2 Label elements OSHA HCS 2012

## DANGER



Hazard statements	Extremely flammable aerosol - H222 Causes serious eye irritation - H319 May cause drowsiness or dizziness - H336 May cause genetic defects H340 Suspected of damaging fertility or the unborn child H361 Causes damage to organs - Central Nervous System (CNS) through prolonged or repeated exposure via Inhalation - H372 May cause damage to organs - Lungs through prolonged or repeated exposure via Inhalation - H373
Precautionary statements	
Prevention	<ul> <li>Obtain special instructions before use P201</li> <li>Do not handle until all safety precautions have been read and understood P202</li> <li>Keep away from heat, sparks, open flames and/or hot surfaces No smoking P210</li> <li>Do not spray on an open flame or other ignition source P211</li> <li>Pressurized container: Do not pierce or burn, even after use P251</li> <li>Do not breathe mist/vapours/spray P260</li> <li>Wash thoroughly after handling P264</li> <li>Do not eat, drink or smoke when using this product P270</li> <li>Use only outdoors or in a well-ventilated area P271</li> <li>Wear protective gloves/protective clothing/eye protection/face protection P280</li> </ul>
Response	<ul> <li>IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing P304+P340</li> <li>Call a POISON CENTER or doctor/physician if you feel unwell P312</li> <li>IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing P305+P351+P338</li> <li>If eye irritation persists: Get medical advice/attention P337+P313</li> <li>IF exposed or concerned: Get medical advice/attention P308+P313</li> <li>Get medical advice/attention if you feel unwell P314</li> </ul>
Storage/Disposal	<ul> <li>Store in a well-ventilated place. Keep container tightly closed P403+P233 Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F P410+P412 Store locked up P405 Dispose of content and/or container in accordance with local, regional, national, and/or international regulations P501</li> </ul>
2.3 Other hazards	
OSHA HCS 2012	<ul> <li>Under United States Regulations (29 CFR 1910.1200 - Hazard Communication Standard), this product is considered hazardous.</li> </ul>

## Canada

According to WHMIS

## **2.1 Classification of the substance or mixture**

WHMIS	Flammable Aerosols - B5
	Other Toxic Effects - D2A
	Other Toxic Effects - D2B

2.2 Label elements WHMIS



 Flammable Aerosols - B5 Other Toxic Effects - D2A Other Toxic Effects - D2B

## 2.3 Other hazards

WHMIS

 In Canada, the product mentioned above is considered hazardous under the Workplace Hazardous Materials Information System (WHMIS).

## Section 3 - Composition/Information on Ingredients

## 3.1 Substances

 Material does not meet the criteria of a substance in accordance with Regulation (EC) No 1272/2008.

## 3.2 Mixtures

	Composition						
Chemical Name	Chemical Name Identifiers % LD50/LC50 Classifications According to Regulation/Directive						
Acetone	CAS:67-64-1 EC Number:200- 662-2 EU Index:606- 001-00-8	< 45%	Inhalation-Rat LC50 • 50100 mg/m <sup>3</sup> 8 Hour(s) Ingestion/Oral-Rat LD50 • 5800 mg/kg	<b>EU DSD/DPD:</b> Annex VI, Table 3.2: F R11 Xi R36 R66 R67 <b>EU CLP:</b> Annex VI, Table 3.1: Flam. Liq. 2, H226; Eye Irrit. 2, H319; STOT SE 3: Narc., H336; EUH066 <b>OSHA HCS 2012:</b> Flam. Liq. 2; Eye Irrit. 2; STOT SE 3: Narc.	NDA		
Naphtha (petroleum), hydrotreated light	CAS:64742-49- 0 EC Number:265- 151-9 EU Index:649- 328-00-1	10% TO 30%	NDA	<b>EU DSD/DPD:</b> Annex VI, Table 3.2: Carc.Cat.2; R45 Muta.Cat.2; R46 Xn; R65 <b>EU CLP:</b> Annex VI, Table 3.1: Carc. 1B, H350; Muta. 1B, H340; Asp. Tox. 1, H304 <b>OSHA HCS 2012:</b> Not Classified	Contains <0.1% benzene therefore carcinogen and mutagen classifications does not apply.		
Graphite	CAS:7782-42-5 EC Number:231- 955-3	10% TO 25%	NDA	EU DSD/DPD: Self Classified: Xn R48/20 EU CLP: Self Classified: STOT RE 2 (Lungs, Inhl), H373 OSHA HCS 2012: STOT RE 2 (Lungs, Inhl); Comb. Dust	NDA		
Propane	CAS:74-98-6 EC Number:200- 827-9 EU Index:601- 003-00-5	< 25%	NDA	EU DSD/DPD: Annex VI, Table 3.2: F+ R12 EU CLP: Annex VI, Table 3.1: Flam. Gas 1, H220; Press. Gas - Comp., H280 OSHA HCS 2012: Flam. Gas 1; Press. Gas - Comp.; Simp. Asphyx.	NDA		
Toluene	<b>CAS:</b> 108-88-3 <b>EC</b> <b>Number:</b> 203- 625-9 <b>EU Index:</b> 601- 021-00-3	2.4%	Ingestion/Oral-Rat LD50 • 636 mg/kg Inhalation-Rat LC50 • 49 g/m³ 4 Hour(s) Skin-Rabbit LD50 • 14100 µL/kg	EU DSD/DPD: Annex VI, Table 3.2: F R11 Xi R38 Xn R48/20-65 Repr.Cat.3 R63 R67 EU CLP: Annex VI, Table 3.1: Flam. Liq. 2, H225; Skin Irrit. 2, H315; Repr. 2, H361d; STOT SE 3: Narc., H336; STOT RE 2, H373; Asp. Tox. 1, H304 OSHA HCS 2012: Flam. Liq. 2; Acute Tox. 4 (oral); Skin Irrit. 2; Eye Irrit. 2; Muta. 1B; Repr. 2; STOT SE 3: Narc.; STOT RE 1 (CNS, Inhl); Asp. Tox. 1	NDA		

Quartz	CAS:14808-60- 7 EC Number:238- 878-4	< 0.1%	NDA	EU CLP: Community workplace exposure limit OSHA HCS 2012: Exposure limit(s)	NDA
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## **Section 4 - First Aid Measures**

## 4.1 Description of first aid measures

Inhalation	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If signs/symptoms continue, get medical attention. Administer oxygen if breathing is difficult. Give artificial respiration if victim is not breathing.				
Skin	<ul> <li>In case of contact with substance, immediately flush skin with running water for at least 20 minutes. For minor skin contact, avoid spreading material on unaffected skin. Get medical attention immediately if symptoms occur.</li> </ul>				
Еуе	In case of contact with substance, immediately flush eyes with running water for at least 20 minutes. If eye irritation persists: Get medical advice/attention.				
Ingestion	If swallowed, DO NOT induce vomiting. Get medical attention.				
4.2 Most important symptoms and effects, both acute and delayed					
Refer to Section 11 - Toxicological Information.					
4.3 Indication of any immediate medical attention and special treatment needed					

#### imediate medical attention and special treatment needed indication of a

Notes	to	Physician
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All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.

## **Section 5 - Firefighting Measures**

5.1 Extinguishing media Suitable Extinguishing Media	<ul> <li>LARGE FIRE: Water spray, fog or regular foam.</li> <li>SMALL FIRES: Dry chemical, CO2, water spray or regular foam.</li> </ul>
Unsuitable Extinguishing Media	■ No data available
5.2 Special hazards arisin	g from the substance or mixture
Unusual Fire and Explosion Hazards	<ul> <li>Closed containers may explode from internal pressure build-up when exposed to extreme heat and discharge contents.</li> <li>Vapors may travel to source of ignition and flash back.</li> <li>Vapors may form explosive mixtures with air.</li> <li>Overexposure to decomposition products may cause a health hazard. Symptoms may not be immediately apparent. Obtain medical attention.</li> </ul>
Hazardous Combustion Products	■ On burning, may release carbon dioxide and carbon monoxide.
5.3 Advice for firefighters	
	<ul> <li>Structural firefighters' protective clothing provides limited protection in fire situations ONLY; it is not effective in spill situations where direct contact with the substance is possible.</li> <li>Wear chemical protective clothing that is specifically recommended by the manufacturer. It may provide little or no thermal protection.</li> <li>Wear positive pressure self-contained breathing apparatus (SCBA).</li> <li>Water may be used to cool containers to prevent pressure build-up and explosion when exposed to extreme heat.</li> </ul>

## **Section 6 - Accidental Release Measures**

## 6.1 Personal precautions, protective equipment and emergency procedures

Personal Precautions	<ul> <li>Do not touch or walk through spilled material. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate enclosed areas.</li> </ul>
Emergency Procedures	ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). As an immediate precautionary measure, isolate spill or leak area for at least 50 meters (150 feet) in all directions. Keep unauthorized personnel away. Stay upwind. Ventilate closed spaces before entering. Keep out of low areas.

## 6.2 Environmental precautions

■ Prevent entry into waterways and sewers.

## 6.3 Methods and material for containment and cleaning up

**Containment/Clean-up** Clean up area with absorbent material and place in closed containers for disposal. **Measures** 

## 6.4 Reference to other sections

Refer to Section 8 - Exposure Controls/Personal Protection and Section 13 - Disposal Considerations.

## Section 7 - Handling and Storage

## 7.1 Precautions for safe handling

Handling

Keep away from heat and ignition sources – No Smoking. Take precautionary measures against static charges. All equipment used when handling the product must be grounded. Do not puncture or incinerate (burn) cans. Do not stick a pin, nail or any other sharp object into opening on top of can. Use only with adequate ventilation. Use good safety and industrial hygiene practices. Wear appropriate personal protective equipment, avoid direct contact. Do not breathe (dust, vapor or spray mist) Avoid contact with eyes, skin and clothing. Do not use near ignition sources such as sparks or open flames. Do not cut, drill or weld on containers. Even empty containers may contain residue that will support a flame or explode when exposed to a spark, flame or other source of ignition. Do not eat, drink or smoke when using this product. After handling wash hands thoroughly.

## 7.2 Conditions for safe storage, including any incompatibilities

Storage

Store in a cool, dry, well-ventilated place. Keep away from heat, sparks, and flame. Do not store at temperatures >120° F

## 7.3 Specific end use(s)

Refer to Section 1.2 - Relevant identified uses.

## Section 8 - Exposure Controls/Personal Protection

3.1 Control parameters							
		Exp	osure Limits/Guideline	5			
	Result	ACGIH	Europe	NIOSH	OSHA		
Quartz (14808-60-7)	TWAs	0.025 mg/m3 TWA (respirable fraction)	Not established	0.05 mg/m3 TWA (respirable dust)	Not established		
	STELs	Not established	100 ppm STEL; 384 mg/m3 STEL	150 ppm STEL; 560 mg/m3 STEL	Not established		
Toluene <del>(108-88-3)</del>	TWAs	20 ppm TWA	50 ppm TWA; 192 mg/m3	100 ppm TWA; 375 mg/m3 TWA	200 ppm TWA		

Graphite as Particulates not otherwise classified (PNOC)	TWAs	2 mg/m3 TWA (all forms except graphite fibers, respirable fraction)	Not established	2.5 mg/m3 TWA (natural, respirable dust)	15 mg/m3 TWA (synthetic, total dust); 5 mg/m3 TWA (synthetic, respirable fraction)
Propane (74-98-6)	TWAs	1000 ppm TWA (listed under Aliphatic hydrocarbon gases: Alkane C1-4)	Not established	1000 ppm TWA; 1800 mg/m3 TWA	1000 ppm TWA; 1800 mg/m3 TWA
Acetone	TWAs	500 ppm TWA	Not established	250 ppm TWA; 590 mg/m3 TWA	1000 ppm TWA; 2400 mg/m3 TWA
(67-64-1)	STELs	750 ppm STEL	Not established	Not established	Not established

## 8.2 Exposure controls

Engineering Measures/Controls ■ Good general ventilation 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.

## **Personal Protective Equipment**

Respiratory	<ul> <li>Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or symptoms are experienced.</li> </ul>
Eye/Face	Wear safety goggles.
Skin/Body	Wear protective clothing and gloves.
Environmental Exposure Controls	<ul> <li>Controls should be engineered to prevent release to the environment, including procedures to prevent spills, atmospheric release and release to waterways.</li> </ul>
Key to abbreviations	

ACGIH = American Conference of Governmental Industrial Hygiene

NIOSH = National Institute of Occupational Safety and Health

STEL = Short Term Exposure Limits are based on 15-minute exposures TWA = Time-Weighted Averages are based on 8h/day, 40h/week exposures

OSHA = Occupational Safety and Health Administration

## **Section 9 - Physical and Chemical Properties**

## 9.1 Information on Physical and Chemical Properties

Material Description			
Physical Form	Aerosol	Appearance/Description	Aerosol with a solvent odor.
Color	Data lacking	Odor	Solvent
Odor Threshold	Data lacking		
General Properties		•	
Boiling Point	Data lacking	Melting Point	Data lacking
Decomposition Temperature	Data lacking	рН	Not relevant
Specific Gravity/Relative Density	Data lacking	Water Solubility	Slightly Soluble
Viscosity	Data lacking	Explosive Properties	Data lacking
Oxidizing Properties:	Data lacking		
Volatility			
Vapor Pressure	Data lacking	Vapor Density	Data lacking
Evaporation Rate	Data lacking		
Flammability		<b>.</b>	
Flash Point	Not relevant	UEL	Not relevant
LEL	Not relevant	Autoignition	Data lacking

Flammability (solid, gas)	Data lacking	I	I I
Environmental			
Octanol/Water Partition coefficient	Data lacking		

## 9.2 Other Information

No additional physical and chemical parameters noted.

Section 10: Stability and Reactivity		
10.1 Reactivity		
	No dangerous reaction known under conditions of normal use.	
10.2 Chemical stability		
	∎ Stable	
10.3 Possibility of hazard	ous reactions	
	<ul> <li>Hazardous polymerization will not occur.</li> </ul>	
10.4 Conditions to avoid		
	Heat, sparks, open flames. Incompatible materials.	
10.5 Incompatible materia	ls	
	Strong oxidizing agents, acids, and alkalis.	
10.6 Hazardous decompo	sition products	
	On burning may release carbon dioxide and carbon monoxide.	

## Section 11 - Toxicological Information

## **11.1 Information on toxicological effects**

	Components				
Quartz (< 0.1%)	14808- 60-7	Multi-dose Toxicity: Inhalation-Hamster TCLo • 3 mg/m <sup>3</sup> 6 Hour(s) 78 Week(s)-Intermittent; <i>Lungs, Thorax, or</i> <i>Respiration</i> :Fibrosis (interstitial); <i>Lungs, Thorax, or Respiration</i> :Changes in lung weight; Inhalation-Rat TCLo • 80 mg/m <sup>3</sup> 26 Week(s)-Intermittent; <i>Lungs, Thorax, or Respiration</i> :Fibrosis, focal (pneumoconiosis); <i>Blood</i> :Changes in spleen; <i>Immunological Including Allergic</i> :Decrease in cellular immune response; Tumorigen / Carcinogen: Inhalation-Rat TCLo • 50 mg/m <sup>3</sup> 6 Hour(s) 71 Week(s)-Intermittent; <i>Tumorigenic</i> :Carcinogenic by RTECS criteria; <i>Liver</i> :Tumors			
Toluene (2.4%)	108-88- 3	<ul> <li>Acute Toxicity: Ingestion/Oral-Rat LD50 • 636 mg/kg; Inhalation-Rat LC50 • 49 g/m<sup>3</sup> 4 Hour(s); Inhalation-Human TCLo • 1500 mg/m<sup>3</sup> 8 Hour(s); Sense Organs and Special Senses:Eye:Lacrimation; Sense Organs and Special Senses:Eye:Conjunctive irritation; Behavioral:Ataxia; Inhalation-Human TCLo • 200 ppm; Brain and Coverings:Recordings from specific areas of CNS; Behavioral:Antipsychotic; Blood:Changes in bone marrow not included above; Inhalation-Man TCLo • 50 ppm; Kidney, Ureter, and Bladder.Other changes in urine composition; Skin-Rabbit LD50 • 14100 µL/kg;</li> <li>Irritation: Eye-Rabbit • 2 mg 24 Hour(s) • Severe irritation; Skin-Rabbit • 20 mg 24 Hour(s) • Moderate irritation;</li> <li>Multi-dose Toxicity: Inhalation-Mouse TCLo • 250 ppm 4 Day(s)-Continuous; Behavioral:Convulsions or effect on seizure threshold; Behavioral:Abuse; Inhalation-Mouse TCLo • 50 ppm 12 Week(s)-Intermittent; Brain and Coverings:Other degenerative changes; Biochemical:Enzyme inhibition, induction, or change in blood or tissue levels:Multiple enzyme effects;</li> <li>Mutagen: Micronucleus test • Ingestion/Oral-Mouse • 200 mg/kg; Sister chromatid exchange • Inhalation-Human • 252 µg/L 19 Year(s); Cytogenetic analysis • Inhalation-Rat • 5400 µg/m<sup>3</sup> 16 Week(s)-Intermittent;</li> <li>Reproductive: Inhalation-Mouse TCLo • 500 mg/m<sup>3</sup> 24 Hour(s)(6-13D preg); Reproductive Effects:Effects on Embryo or Fetus:Fetotoxicity (except death, e.g., stunted fetus); Inhalation-Mouse TCLo • 200 ppm 7 Hour(s)(7-16D preg); Reproductive Effects:Specific Developmental Abnormalities:Urogenital system</li> </ul>			

		Acute Toxicity: Ingestion/Oral-Rat LD50 • 5800 mg/kg; Inhalation-Rat LC50 • 50100 mg/m3;
Acetone	67-64-	Irritation: Eye-Rabbit • 20 mg • Severe irritation; Skin-Rabbit • 395 mg-Open • Mild irritation;
(< 45%)	1	Reproductive: Inhalation-Rat TCLo • 11000 ppm (6-19D preg); Reproductive Effects: Specific Developmental
		Abnormalities: Other developmental abnormalities

GHS Properties	Classification
Acute toxicity	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking
Aspiration Hazard	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking
Carcinogenicity	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking
Germ Cell Mutagenicity	EU/CLP • Data lacking OSHA HCS 2012 • Germ Cell Mutagenicity 1B
Skin corrosion/Irritation	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking
Skin sensitization	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking
STOT-RE	<b>EU/CLP •</b> Data lacking <b>OSHA HCS 2012 •</b> Specific Target Organ Toxicity Repeated Exposure 1; Specific Target Organ Toxicity Repeated Exposure 2
STOT-SE	EU/CLP • Specific Target Organ Toxicity Single Exposure 3: Narcotic Effects OSHA HCS 2012 • Specific Target Organ Toxicity Single Exposure 3: Narcotic Effects
Toxicity for Reproduction	EU/CLP • Data lacking OSHA HCS 2012 • Toxic to Reproduction 2
Respiratory sensitization	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking
Serious eye damage/Irritation	EU/CLP • Eye Irritation 2 OSHA HCS 2012 • Eye Irritation 2

## **Potential Health Effects**

Inhalation

- Acute (Immediate) May affect the central nervous system. Symptoms may include dizziness, drowsiness, lethargy, coma and death.
- **Chronic (Delayed)**Repeated and prolonged inhalation may result in impaired lung function. Repeated or proplonged exposure may cause hyperactive reflexes, peripheral neuropathy, ataxia, personality changes, tremors, headaches, emotional liability, cognitive dysfunction and memory loss. Toluene abuse or sniffing may cause liver, kidney and central nervous system damage. Toluene may also cause sensitization to epinephrine or other adrenalin like agents.

# Skin Acute (Immediate) May cause mild irritation. Chronic (Delayed) Contact may dry the skin prolonged contact may cause irritation. Solvent action can dry and defate the skin causing skin to crack, leading to dermatitis. Eye Acute (Immediate) Causes serious eve irritation.

Acute (Immediate)	Causes serious eye irritation.
Chronic (Delayed)	No data available
Ingestion	

## Acute (Immediate)

- Under normal conditions of use, no health effects are expected.
- Chronic (Delayed)

No data available

**Mutagenic Effects** 

Repeated and prolonged exposure may cause mutagenic effects.

Repeated and prolonged exposure may affect the reproductive system.

Carcinogenic Effects				
CAS IARC NTP				
Quartz	14808-60-7	Group 1-Carcinogenic	Known Human Carcinogen	

## **Reproductive Effects**

- Key to abbreviations LC = Lethal Concentration
- LD = Lethal Dose
- TC = Toxic Concentration

Section 12 - Ecolo	Section 12 - Ecological Information			
12.1 Toxicity	2.1 Toxicity			
	Data lacking.			
12.2 Persistence a	nd degradability			
	Material data lacking.			
12.2 Bioggoumulat	ive notential			

## 12.3 Bioaccumulative potential

Material data lacking.

## 12.4 Mobility in Soil

Material data lacking.

## 12.5 Results of PBT and vPvB assessment

No PBT and vPvB assessment has been conducted.

## 12.6 Other adverse effects

No studies have been found.

## Section 13 - Disposal Considerations

## 13.1 Waste treatment methods

**Product waste** 

Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Packaging waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

## **Section 14 - Transport Information**

	14.1 UN number	14.2 UN proper shipping name	14.3 Transport hazard class(es)	14.4 Packing group	14.5 Environmental hazards
DOT	NDA	Consumer Commodity, ORM-D	NDA	NDA	NDA
TDG	NDA	CONSUMER COMMODITY, ORM-D	NDA	NDA	NDA
IMO/IMDG	UN1950	AEROSOLS, FLAMMABLE	2.1	NDA	NDA

IATA/ICAO UN1950	Aerosols, flammable	2.1	NDA	NDA
14.6 Special precautions fuser	for None specified.			
14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IB Code	∎ Data lacking. C			

## Section 15 - Regulatory Information

# 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

**SARA Hazard Classifications** Acute, Chronic, Fire, Pressure(Sudden Release of)

Inventory					
Component	CAS	Canada DSL	Canada NDSL	EU EINECS	EU ELNICS
Acetone	67-64-1	Yes	No	Yes	No
Graphite	7782-42-5	Yes	No	Yes	No
Naphtha (petroleum), hydrotreated light	64742-49-0	Yes	No	Yes	No
Propane	74-98-6	Yes	No	Yes	No
Quartz	14808-60-7	Yes	No	Yes	No
Toluene	108-88-3	Yes	No	Yes	No

## Canada

Canada - WHMIS - Classifications of Substances		
<ul> <li>Naphtha (petroleum), hydrotreated light</li> </ul>	64742-49-0	Not Listed
• Acetone	67-64-1	B2, D2B
• Propane	74-98-6	A, B1
• Toluene	108-88-3	B2, D2A, D2B
• Quartz	14808-60-7	D2A (In certain cases, this classification does not apply. For more information, consult the section Substance Specif Issues - Silica, crystalline, encapsulated on Health Canada's WHMIS Division website.)
• Graphite	7782-42-5	D2A (natural); D2B (synthetic)
Graphite as Particulates not otherwise classified (PNOC)		Not Listed
Canada - WHMIS - Ingredient Disclosure List		
Naphtha (petroleum), hydrotreated light	64742-49-0	Not Listed
Acetone	67-64-1	1 %
Propane	74-98-6	Not Listed
• Toluene	108-88-3	1 %
• Quartz	14808-60-7	1 %
• Graphite	7782-42-5	Not Listed
• Graphite as Particulates not otherwise classified (PNOC)		Not Listed

### Environment

Canada - CEPA - Priority Substances List		
<ul> <li>Naphtha (petroleum), hydrotreated light</li> </ul>	64742-49-0	Not Listed
Acetone	67-64-1	Not Listed
Propane	74-98-6	Not Listed
		Priority Substance List 1
• Toluene	108-88-3	(substance not considered toxic)
• Quartz	14808-60-7	Not Listed
Graphite	7782-42-5	Not Listed
Graphite as Particulates not otherwise classified (PNOC)		Not Listed

## Europe

## Other

## EU - Hazardous Substances Restricted or Prohibited in Electrical Equipment (2011/65/EU) (RoHS)

<ul> <li>Naphtha (petroleum), hydrotreated light</li> </ul>	64742-49-0	Not Listed
Acetone	67-64-1	Not Listed
Propane	74-98-6	Not Listed
Toluene	108-88-3	Not Listed
• Quartz	14808-60-7	Not Listed
Graphite	7782-42-5	Not Listed
<ul> <li>Graphite as Particulates not otherwise classified (PNOC)</li> </ul>		Not Listed

## **United States**

## Labor

Labor		
U.S OSHA - Process Safety Management - Highly Hazardous Chemicals		
<ul> <li>Naphtha (petroleum), hydrotreated light</li> </ul>	64742-49-0	Not Listed
Acetone	67-64-1	Not Listed
Propane	74-98-6	Not Listed
Toluene	108-88-3	Not Listed
• Quartz	14808-60-7	Not Listed
Graphite	7782-42-5	Not Listed
Graphite as Particulates not otherwise classified (PNOC)		Not Listed
U.S OSHA - Specifically Regulated Chemicals		
Naphtha (petroleum), hydrotreated light	64742-49-0	Not Listed
Acetone	67-64-1	Not Listed
Propane	74-98-6	Not Listed
Toluene	108-88-3	Not Listed
• Quartz	14808-60-7	Not Listed
Graphite	7782-42-5	Not Listed
Graphite as Particulates not otherwise classified (PNOC)		Not Listed

## Environment

U.S CAA (Clean Air Act) - 1990 Hazardous Air Pollutants		
<ul> <li>Naphtha (petroleum), hydrotreated light</li> </ul>	64742-49-0	Not Listed
Acetone	67-64-1	Not Listed
Propane	74-98-6	Not Listed
Toluene	108-88-3	
• Quartz	14808-60-7	Not Listed
Graphite	7782-42-5	Not Listed
<ul> <li>Graphite as Particulates not otherwise classified (PNOC)</li> </ul>		Not Listed

U.S CERCLA/SARA - Hazardous Substances and their Reportable Quantities		
Naphtha (petroleum), hydrotreated light	64742-49-0	Not Listed
• Acetone	67-64-1	5000 lb final RQ; 2270 kg final RQ
Propane	74-98-6	Not Listed
• Toluene	108-88-3	1000 lb final RQ; 454 kg final
• Quartz	14808-60-7	RQ Not Listed
Graphite	7782-42-5	Not Listed
Graphite as Particulates not otherwise classified (PNOC)	1102 42 0	Not Listed
U.S CERCLA/SARA - Radionuclides and Their Reportable Quantities	64742 40 0	Not Listed
<ul><li>Naphtha (petroleum), hydrotreated light</li><li>Acetone</li></ul>	64742-49-0 67-64-1	Not Listed
Propane	74-98-6	Not Listed
Toluene	108-88-3	Not Listed
Quartz		
	14808-60-7	Not Listed
Graphite     Craphite     Craphite	7782-42-5	Not Listed
Graphite as Particulates not otherwise classified (PNOC)		Not Listed
U.S CERCLA/SARA - Section 302 Extremely Hazardous Substances EPCRA RQs		
Naphtha (petroleum), hydrotreated light	64742-49-0	Not Listed
Acetone	67-64-1	Not Listed
Propane	74-98-6	Not Listed
Toluene	108-88-3	Not Listed
• Quartz	14808-60-7	Not Listed
Graphite	7782-42-5	Not Listed
Graphite as Particulates not otherwise classified (PNOC)		Not Listed
U.S CERCLA/SARA - Section 302 Extremely Hazardous Substances TPQs		
Naphtha (petroleum), hydrotreated light	64742-49-0	Not Listed
Acetone	67-64-1	Not Listed
Propane	74-98-6	Not Listed
Toluene	108-88-3	Not Listed
• Quartz	14808-60-7	Not Listed
Graphite	7782-42-5	Not Listed
Graphite as Particulates not otherwise classified (PNOC)		Not Listed
U.C. OFROLA/CARA Conting 242 Emission Reporting		
U.S CERCLA/SARA - Section 313 - Emission Reporting	64742-49-0	Not Listed
<ul> <li>Naphtha (petroleum), hydrotreated light</li> <li>Acetone</li> </ul>	67-64-1	Not Listed
	74-98-6	Not Listed
Propane	74-90-0	1.0 % de minimis
Toluene	108-88-3	concentration
• Quartz	14808-60-7	Not Listed
Graphite	7782-42-5	Not Listed
Graphite as Particulates not otherwise classified (PNOC)		Not Listed
U.S CERCLA/SARA - Section 313 - PBT Chemical Listing		
Naphtha (petroleum), hydrotreated light	64742-49-0	Not Listed
Acetone	67-64-1	Not Listed
Propane	74-98-6	Not Listed
Toluene	108-88-3	Not Listed
• Quartz	14808-60-7	Not Listed

Graphite

-Environment -

· Graphite as Particulates not otherwise classified (PNOC)

## **United States - California**

7782-42-5 Not Listed Not Listed

64742-49-0 67-64-1 74-98-6	Not Listed Not Listed
67-64-1	
	NOL LISIEU
74-90-0	Not Listod
100 00 0	Not Listed
108-88-3	Not Listed
14808-60-7	carcinogen, initial date 10/1/88 (airborne particles of respirable size)
7782-42-5	Not Listed
	Not Listed
64742-49-0	Not Listed
67-64-1	Not Listed
74-98-6	Not Listed
108-88-3	developmental toxicity, initial date 1/1/91
14808-60-7	Not Listed
7782-42-5	Not Listed
	Not Listed
64742-49-0	Not Listed
67-64-1	Not Listed
74-98-6	Not Listed
108-88-3	7000 µg/day MADL (level represents absorbed dose)
14808-60-7	Not Listed
7782-42-5	Not Listed
	Not Listed
64742-49-0	Not Listed
67-64-1	Not Listed
74-98-6	Not Listed
108-88-3	Not Listed
14808-60-7	Not Listed
7782-42-5	Not Listed
	Not Listed
64742-49-0	Not Listed
67-64-1	Not Listed
74-98-6	Not Listed
108-88-3	female reproductive toxicity, initial date 8/7/09
14808-60-7	Not Listed
	Not Listed
	Not Listed
	64742-49-0 67-64-1 74-98-6 108-88-3 14808-60-7 7782-42-5 64742-49-0 67-64-1 74-98-6 108-88-3 14808-60-7 7782-42-5 64742-49-0 67-64-1 74-98-6 108-88-3 14808-60-7 7782-42-5

California - Proposition 65 - Reproductive Toxicity - Male		
htha (petroleum), hydrotreated light	64742-49-0	Not Listed
one	67-64-1	Not Listed
pane	74-98-6	Not Listed
ene	108-88-3	Not Listed
rtz	14808-60-7	Not Listed
hite	7782-42-5	Not Listed
ohite as Particulates not otherwise classified (PNOC)		Not Listed

## **15.2 Chemical Safety Assessment**

No Chemical Safety Assessment has been carried out.

## Section 16 - Other Information

Relevant Phrases (code & full text)

	<ul> <li>H220 - Extremely flammable gas</li> <li>H225 - Highly flammable liquid and vapour</li> <li>H226 - Flammable liquid and vapour</li> <li>H280 - Contains gas under pressure; may explode if heated</li> <li>H304 - May be fatal if swallowed and enters airways</li> <li>H315 - Causes skin irritation</li> <li>H340 - May cause genetic defects.</li> <li>H350 - May cause cancer.</li> <li>H361d - Suspected of damaging the unborn child.</li> <li>H373 - May cause damage to organs through prolonged or repeated exposure.</li> <li>R11 - Highly flammable.</li> </ul>
	R38 - Irritating to skin. R45 - May cause cancer. R46 - May cause heritable genetic damage. R48/20 - Harmful: danger of serious damage to health by prolonged exposure through inhalation. R63 - Possible risk of harm to the unborn child. R65 - Harmful: may cause lung damage if swallowed.
Last Revision Date	∎ 06/23/17
Preparation Date	∎ 12/September/2014
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Key to abbreviations NDA = No data available	