

### SECTION 1: Product and company identification

Product name : Graphite Lubricant  
Use of the substance/mixture : Aerosol  
Dry lubricant  
Product code : 8211  
Company : Total Solutions  
P.O. Box 240014  
Milwaukee, WI 53224 - USA  
T(414) 354-6417  
Emergency number : Chemtrec: (800) 424-9300

### SECTION 2: Hazards identification

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

##### GHS-US classification

Flam. Aerosol 1 H222  
Skin Irrit. 2 H315  
Muta. 1B H340  
Carc. 1A H350  
STOT SE 3 H336  
STOT RE 2 H373  
Asp. Tox. 1 H304

#### 2.2. Label elements

##### GHS-US labeling

Hazard pictograms (GHS-US) :



Signal word (GHS-US) :

Danger

Hazard statements (GHS-US) :

Extremely flammable aerosol  
May be fatal if swallowed and enters airways  
Causes skin irritation  
May cause drowsiness or dizziness  
May cause genetic defects  
May cause cancer (Inhalation)  
May cause damage to organs through prolonged or repeated exposure

Precautionary statements (GHS-US) :

Obtain special instructions before use.  
Do not handle until all safety precautions have been read and understood.  
Keep away from heat, hot surfaces, open flames, sparks. - No smoking.  
Do not spray on an open flame or other ignition source.  
Pressurized container: Do not pierce or burn, even after use.  
Do not breathe fume, gas, mist, spray, vapors.  
Wash thoroughly after handling  
Use only outdoors or in a well-ventilated area.  
Wear eye protection, protective clothing, protective gloves.  
If swallowed: Immediately call a doctor, a POISON CENTER  
If on skin: Wash with plenty of water  
If inhaled: Remove person to fresh air and keep comfortable for breathing  
If exposed or concerned: Get medical advice/attention.  
Call a doctor, a POISON CENTER if you feel unwell  
Do NOT induce vomiting.  
If skin irritation occurs: Get medical advice/attention.  
Take off contaminated clothing and wash it before reuse.  
Store in a well-ventilated place. Keep container tightly closed.  
Store locked up.  
Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.  
Dispose of contents/container to comply with local/regional/national/international regulations

#### 2.3. Other hazards

No additional information available

### 2.4. Unknown acute toxicity (GHS US)

Not applicable

## SECTION 3: Composition/Information on ingredients

### 3.1. Substances

Not applicable

Full text of H-phrases: see section 16

### 3.2. Mixtures

Name	Product identifier	%	GHS-US classification
toluene	(CAS-No.) 108-88-3	45-70	Flam. Liq. 2, H225 Skin Irrit. 2, H315 STOT SE 3, H336 STOT RE 2, H373 Asp. Tox. 1, H304
Crystalline Silica	(CAS-No.) 14808-60-7	0.1-1	Carc. 1A, H350 STOT RE 1, H372
benzene	(CAS-No.) 71-43-2	0.1-1	Flam. Liq. 2, H225 Skin Irrit. 2, H315 Eye Irrit. 2A, H319 Muta. 1B, H340 Carc. 1A, H350 STOT RE 1, H372 Asp. Tox. 1, H304
ethylbenzene	(CAS-No.) 100-41-4	0.1-1	Flam. Liq. 2, H225 Acute Tox. 4 (Inhalation:vapour), H332 Carc. 2, H351 STOT RE 2, H373 Asp. Tox. 1, H304

A specific chemical identity and/or percentage of composition has been withheld as a trade secret. Any concentration shown as a range is to protect confidentiality or is due to batch variation.

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

First-aid measures general	: If you feel unwell, seek medical advice (show the label where possible). IF exposed or concerned: Get medical advice/attention.
First-aid measures after inhalation	: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a poison center/doctor/physician if you feel unwell.
First-aid measures after skin contact	: Take off immediately all contaminated clothing and wash it before reuse. Wash skin with plenty of water. If skin irritation occurs: Get medical advice/attention.
First-aid measures after eye contact	: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
First-aid measures after ingestion	: Do NOT induce vomiting. Rinse mouth with water. Immediately call a poison center or doctor/physician.

### 4.2. Most important symptoms and effects, both acute and delayed

Symptoms/effects	: May be fatal if swallowed and enters airways. May cause drowsiness or dizziness. May cause genetic defects. May cause cancer. May cause damage to organs through prolonged or repeated exposure.
Symptoms/effects after inhalation	: May cause respiratory irritation. Central nervous system depression. Prolonged exposure: danger of damage to health through inhalation.
Symptoms/effects after skin contact	: Causes skin irritation.
Symptoms/effects after eye contact	: Direct contact with the eyes is likely to be irritating.
Symptoms/effects after ingestion	: May be fatal if swallowed and enters airways.

### 4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

Suitable extinguishing media : Foam. Carbon dioxide. Dry chemical powder.

### 5.2. Special hazards arising from the substance or mixture

Fire hazard	: Extremely flammable aerosol.
Explosion hazard	: Pressurized container: may burst if heated. vapors may travel long distances along ground before igniting/flashing back to vapor source.
Reactivity	: Upon combustion: CO and CO2 are formed.

### 5.3. Advice for firefighters

- Firefighting instructions : Exercise caution when fighting any chemical fire. Use water spray or fog for cooling exposed containers. Take account of environmentally hazardous firefighting water.
- Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

- General measures : Isolate from fire, if possible, without unnecessary risk. Eliminate every possible source of ignition.

#### 6.1.1. For non-emergency personnel

- Protective equipment : Protective goggles. Gloves. Protective clothing.
- Emergency procedures : Evacuate unnecessary personnel. Avoid contact with skin, eyes and clothing. Ventilate spillage area.

#### 6.1.2. For emergency responders

- Protective equipment : Equip cleanup crew with proper protection.
- Emergency procedures : Stop leak if safe to do so. Stop release. Ventilate area.

### 6.2. Environmental precautions

- Avoid release to the environment. Prevent entry to sewers and public waters.

### 6.3. Methods and material for containment and cleaning up

- For containment : Contain released product, pump into suitable containers.
- Methods for cleaning up : This material and its container must be disposed of in a safe way, and as per local legislation.

### 6.4. Reference to other sections

- No additional information available

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

- Additional hazards when processed : Do not puncture, incinerate or crush. Do not use if spray button is missing or defective.
- Precautions for safe handling : Comply with the legal requirements. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required. Do not eat, drink or smoke when using this product. Do not get in eyes, on skin, or on clothing. Obtain special instructions before use. Do not breathe gas/vapor/aerosol. Do not cut, weld, solder, drill, grind, or expose containers to heat, flame, sparks, or other sources of ignition. . Do not re-use empty containers. Handle uncleaned empty containers as full ones.
- Hygiene measures : Wash thoroughly after handling. Wash contaminated clothing before reuse.

### 7.2. Conditions for safe storage, including any incompatibilities

- Technical measures : Comply with applicable regulations.
- Storage conditions : Keep cool. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.
- Incompatible materials : Sources of ignition. Direct sunlight. Heat sources.
- Heat-ignition : KEEP SUBSTANCE AWAY FROM: ignition sources. heat sources.
- Storage area : Meet the legal requirements. Store in a cool area. Store in a dry area.
- Special rules on packaging : meet the legal requirements.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

<b>Crystalline Silica (14808-60-7)</b>		
OSHA	OSHA PEL (TWA) (mg/m <sup>3</sup> )	0.1
OSHA	Remark (OSHA)	(3) See Table Z-3.
<b>toluene (108-88-3)</b>		
ACGIH	ACGIH TWA (ppm)	20 ppm
ACGIH	Remark (ACGIH)	Visual impair; female repro; pregnancy loss; A4; BEI
OSHA	Remark (OSHA)	(2) See Table Z-2.
<b>benzene (71-43-2)</b>		
ACGIH	ACGIH TWA (ppm)	0.5 ppm
ACGIH	ACGIH STEL (ppm)	2.5 ppm
ACGIH	Remark (ACGIH)	Leukemia

# Graphite Lubricant

## Safety Data Sheet

ethylbenzene (100-41-4)		
ACGIH	ACGIH TWA (ppm)	20 ppm
ACGIH	Remark (ACGIH)	URT irr; kidney dam (nephropathy)
OSHA	OSHA PEL (TWA) (mg/m <sup>3</sup> )	435 mg/m <sup>3</sup>
OSHA	OSHA PEL (TWA) (ppm)	100 ppm

### 8.2. Exposure controls

Personal protective equipment

: Use appropriate personal protective equipment when risk assessment indicates this is necessary. Gloves. Safety glasses. Protective clothing. Insufficient ventilation: wear respiratory protection.



## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: Aerosol. Gray.
Odor	: Hydrocarbon odor
Odor threshold	: No data available
pH	: No data available
Melting point	: No data available
Freezing point	: No data available
Boiling point	: No data available
Flash point	: No data available
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability (solid, gas)	: No data available
Explosion limits	: No data available
Explosive properties	: No data available
Oxidizing properties	: No data available
Vapor pressure	: 4.4 atm @ 70°F
Relative density	: No data available
Relative vapor density at 20 °C	: No data available
Solubility	: Negligible.
Log Pow	: No data available
Log Kow	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity	: No data available
Viscosity, kinematic	: < 20 cSt
Viscosity, dynamic	: No data available
VOC content	: < 85 %

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

Upon combustion: CO and CO<sub>2</sub> are formed.

### 10.2. Chemical stability

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

Refer to section 10.1 on Reactivity.

### 10.4. Conditions to avoid

Heat. No flames, no sparks. Eliminate all sources of ignition.

### 10.5. Incompatible materials

No additional information available

**10.6. Hazardous decomposition products**

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

**SECTION 11: Toxicological information**

**11.1. Information on toxicological effects**

Acute toxicity : Not classified

<b>ethylbenzene (100-41-4)</b>	
LD50 oral rat	3500 mg/kg (Rat; Other; Experimental value)
LD50 dermal rabbit	15415 mg/kg (Rabbit; Literature study; Other; 15432 mg/kg; Rabbit; Experimental value)
LC50 inhalation rat (mg/l)	17.8 mg/l/4h (Rat; Literature study)
LC50 inhalation rat (ppm)	4000 ppm/4h (Rat; Literature study)
ATE CLP (oral)	3500 mg/kg body weight
ATE CLP (dermal)	15415 mg/kg body weight
ATE CLP (gases)	4000 ppmV/4h
ATE CLP (vapors)	17.8 mg/l/4h
ATE CLP (dust, mist)	17.8 mg/l/4h

Skin corrosion/irritation : Causes skin irritation.  
 Serious eye damage/irritation : Not classified  
 Respiratory or skin sensitization : Not classified  
 Germ cell mutagenicity : May cause genetic defects.  
 Carcinogenicity : May cause cancer (Inhalation).

<b>Crystalline Silica (14808-60-7)</b>	
IARC group	1 - Carcinogenic to humans

<b>toluene (108-88-3)</b>	
IARC group	3 - Not classifiable

<b>benzene (71-43-2)</b>	
IARC group	1 - Carcinogenic to humans
National Toxicology Program (NTP) Status	2 - Known Human Carcinogens

<b>ethylbenzene (100-41-4)</b>	
IARC group	2B - Possibly carcinogenic to humans

Reproductive toxicity : Not classified  
 Specific target organ toxicity – single exposure : May cause drowsiness or dizziness.  
 Specific target organ toxicity – repeated exposure : May cause damage to organs through prolonged or repeated exposure.  
 Aspiration hazard : May be fatal if swallowed and enters airways.  
 Symptoms/effects after inhalation : May cause respiratory irritation. Central nervous system depression. Prolonged exposure: danger of damage to health through inhalation.  
 Symptoms/effects after skin contact : Causes skin irritation.  
 Symptoms/effects after eye contact : Direct contact with the eyes is likely to be irritating.  
 Symptoms/effects after ingestion : May be fatal if swallowed and enters airways.

**SECTION 12: Ecological information**

**12.1. Toxicity**

<b>ethylbenzene (100-41-4)</b>	
LC50 fish 2	4.2 mg/l (LC50; OECD 203: Fish, Acute Toxicity Test; 96 h; Salmo gairdneri; Semi-static system; Fresh water; Experimental value)

**12.2. Persistence and degradability**

<b>ethylbenzene (100-41-4)</b>	
Persistence and degradability	Readily biodegradable in water. Biodegradable in the soil. Low potential for adsorption in soil.
Biochemical oxygen demand (BOD)	1.44 g O <sub>2</sub> /g substance (20d.)
Chemical oxygen demand (COD)	2.1 g O <sub>2</sub> /g substance
ThOD	3.17 g O <sub>2</sub> /g substance

# Graphite Lubricant

## Safety Data Sheet



ethylbenzene (100-41-4)	
BOD (% of ThOD)	45.4 (20 days)

### 12.3. Bioaccumulative potential

ethylbenzene (100-41-4)	
BCF fish 1	1 (BCF; Other; 6 weeks; Oncorhynchus kisutch; Flow-through system; Salt water; Literature study)
BCF fish 2	15 - 79 (BCF)
BCF other aquatic organisms 1	4.68 (BCF)
Log Pow	3.15 (Experimental value; 3.6; Experimental value; EU Method A.8: Partition Coefficient; 20 °C)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Product/Packaging disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.

## SECTION 14: Transport information

Department of Transportation (DOT)

### Additional information

Other information : When transported by ground, this product may be eligible to be shipped as a Limited Quantity or Consumer Commodity ORM-D utilizing the exception found at 49 CFR 173.306. If any alteration of packaging, product, or mode of transportation is further intended, different shipping names and labeling may be required.

### ADR

No additional information available

### Transport by sea

No additional information available

### Air transport

No additional information available

## SECTION 15: Regulatory information

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory.

Chemical(s) subject to the reporting requirements of Section 313 or Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986 and 40 CFR Part 372.

toluene	CAS-No. 108-88-3	45-70%
benzene	CAS-No. 71-43-2	0.1-1%
ethylbenzene	CAS-No. 100-41-4	0.1-1%

toluene (108-88-3)	
Subject to reporting requirements of United States SARA Section 313	
CERCLA RQ	1000 lb

benzene (71-43-2)	
Subject to reporting requirements of United States SARA Section 313	
CERCLA RQ	10 lb

ethylbenzene (100-41-4)	
Subject to reporting requirements of United States SARA Section 313	

# Graphite Lubricant

## Safety Data Sheet



ethylbenzene (100-41-4)	
CERCLA RQ	1000 lb

**⚠ WARNING**

This product can expose you to toluene, which is known to the State of California to cause birth defects or other reproductive harm, Crystalline Silica, which is known to the State of California to cause cancer, ethylbenzene, which is known to the State of California to cause cancer, and benzene, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

### SECTION 16: Other information

Training advice : Normal use of this product shall imply use in accordance with the instructions on the packaging.

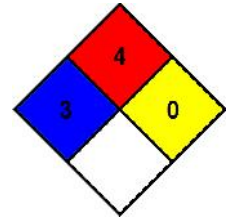
Full text of H-phrases:

H225	Highly flammable liquid and vapour
H304	May be fatal if swallowed and enters airways
H315	Causes skin irritation
H319	Causes serious eye irritation
H332	Harmful if inhaled
H336	May cause drowsiness or dizziness
H340	May cause genetic defects
H350	May cause cancer
H351	Suspected of causing cancer
H372	Causes damage to organs through prolonged or repeated exposure
H373	May cause damage to organs through prolonged or repeated exposure

NFPA health hazard : 3 - Materials that, under emergency conditions, can cause serious or permanent injury.

NFPA fire hazard : 4 - Materials that rapidly or completely vaporize at atmospheric pressure and normal ambient temperature or that are readily dispersed in air and burn readily.

NFPA reactivity : 0 - Material that in themselves are normally stable, even under fire conditions.



Prepared by: Technical Department

*This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product. No warranty is expressed or implied regarding the accuracy of this data or the results obtained from the use thereof. Our company assumes no responsibility for personal injury or property damage to the vendee, users or third parties caused by the material. Such vendees or users assume all risks associated with the use of this material.*