

Issuing date 12-May-2016

Revision Date 16-August-2016

Version 1.03b

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product identifier

Product name Graphite Plus

Recommended use of the chemical and restrictions on use

Product Type Extremely flammable aerosol
Synonyms None

Supplier's details

Recommended Use Dry lubricant.
Uses advised against No information available

Manufactured For:
Cummings-Moore Graphite Company
1646 N Green Ave
Detroit, MI 48209
1-908-537-2155
www.asbury.com

Emergency telephone number

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)

. HAZARDS IDENTIFICATION**Classification**

Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2A
Specific target organ toxicity (single exposure)	Category 1
Flammable aerosols	Category 1
Gases under pressure	Compressed Gas

GHS Label elements, including precautionary statements**Emergency Overview****DANGER****Hazard Statements**

Causes skin irritation

Causes serious eye irritation

Causes damage to organs (Central Nervous System, Central Vascular System, Eyes, Gastrointestinal Tract , Respiratory System, and Skin.)

Extremely flammable aerosol

Contains gas under pressure; may explode if heated

**Appearance** opaque**Physical state** Aerosol**Odor** Solvent**Precautionary Statements - Prevention**

Wash face, hands and any exposed skin thoroughly after handling

Wear protective gloves/eye protection/face protection.

Do not breathe dust/fume/gas/mist/vapors/spray

Do not eat, drink or smoke when using this product

Keep away from heat/sparks/open flames/hot surfaces. — No smoking

Do not spray on an open flame or other ignition source

Pressurized container: Do not pierce or burn, even after use

Precautionary Statements - Response

IF exposed: Call a POISON CENTER or doctor/physician

Specific treatment (see first aid on this label)

IF IN EYES: 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

IF ON SKIN: Wash with plenty of soap and water.

If skin irritation occurs: Get medical advice/attention

Take off contaminated clothing and wash before reuse

Precautionary Statements - Storage

Store locked up

Protect from sunlight. Store in a well-ventilated place

Do not expose to temperatures exceeding 122°F (50°C)

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

None

Other information

0.0000023% of the mixture consists of ingredient(s) of unknown toxicity

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS-No	Weight %*
ISOPROPYL ALCOHOL	67-63-0	55-65
PROPANE/ISOBUTANE/N-BUTANE	68476-86-8	30-40
METHANOL	67-56-1	1-10
GRAPHITE	7782-42-5	1-10

*The exact percentage (concentration) of composition has been withheld as a trade secret.

4. FIRST AID MEASURES**First aid measures for different exposure routes**

Eye contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If irritation persists, call a physician.
Skin contact	Wash off immediately with soap and plenty of water. Remove and wash contaminated clothing before re-use. If skin irritation persists, call a physician.
Inhalation	Toxic by inhalation. Avoid contact with skin. Remove person to fresh air and keep comfortable for breathing. Call a poison center/doctor if you feel unwell.
Ingestion	If ingested, do not induce vomiting. Call a physician.

Most important symptoms/effects, acute and delayed

Main Symptoms	Causes skin and eye irritation. May cause respiratory irritation. May be harmful or fatal if swallowed.
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Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician	Treat symptomatically.
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5. FIRE-FIGHTING MEASURES**Suitable Extinguishing Media**

Water fog.Dry chemical. Carbon dioxide (CO₂). Cool containers/tanks with water spray.

Unsuitable Extinguishing Media Decomposition by contact with water may generate vapors which can be ignited by heat or open flame.

Specific hazards arising from the chemical**Explosion Data**

Sensitivity to Mechanical Impact none.

Sensitivity to Static Discharge Yes.

Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES**Personal precautions, protective equipment and emergency procedures**

Personal precautions Use with adequate ventilation to keep the exposure levels below the OELS.

Environmental precautions

Environmental precautions Report spills as required by local and federal regulations.

Methods and materials for containment and cleaning up

Methods for Containment Prevent further leakage or spillage if safe to do so.

Methods for cleaning up Pick up and transfer to properly labeled containers.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling May be irritating to eyes. Avoid breathing vapors or mists. Contents under pressure. Do not puncture or incinerate cans. Do not stick pin or any other sharp object into opening on top of can. Use with adequate ventilation. Keep container away from heat, flames, and all other sources of ignition. Keep can away from all sources of electricity such as electric motors and batteries. Do not spray on hot surfaces.

Conditions for safe storage, including any incompatibilities

Technical measures/Storage conditions Keep containers tightly closed in a dry, cool and well-ventilated place.

Incompatible products Store away from strong oxidizers and acids.

Aerosol Level 3

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters**Exposure Guidelines**

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
ISOPROPYL ALCOHOL 67-63-0	STEL: 400 ppm TWA: 200 ppm	TWA: 400 ppm TWA: 980 mg/m ³ (vacated) TWA: 400 ppm (vacated) TWA: 980 mg/m ³ (vacated) STEL: 500 ppm (vacated) STEL: 1225 mg/m ³	IDLH: 2000 ppm TWA: 400 ppm TWA: 980 mg/m ³ STEL: 500 ppm STEL: 1225 mg/m ³
PROPANE/ISOBUTANE/ N-BUTANE 68476-86-8	74-98-6: TWA: 1000 ppm 106-97-8: STEL: 1000 ppm 75-28-5: STEL: 1000 ppm	74-98-6: TWA: 1000 ppm TWA: 1800 mg/m ³ (vacated) TWA: 1000 ppm (vacated) TWA: 1800 mg/m ³ 106-97-8: (vacated) TWA: 800 ppm (vacated) TWA: 1900 mg/m ³	74-98-6: IDLH: 2100 ppm TWA: 1000 ppm TWA: 1800 mg/m ³ 106-97-8: TWA: 800 ppm TWA: 1900 mg/m ³ 75-28-5: TWA: 800 ppm TWA: 1900 mg/m ³
METHANOL 67-56-1	STEL: 250 ppm TWA: 200 ppm Skin - potential significant contribution to overall exposure by the cutaneous route	TWA: 200 ppm TWA: 260 mg/m ³ (vacated) TWA: 200 ppm (vacated) TWA: 260 mg/m ³ (vacated) STEL: 250 ppm (vacated) STEL: 325 mg/m ³ (vacated) S*	IDLH: 6000 ppm TWA: 200 ppm TWA: 260 mg/m ³ STEL: 250 ppm STEL: 325 mg/m ³
GRAPHITE 7782-42-5	TWA: 2 mg/m ³ respirable fraction all forms except graphite fibers	TWA: 15 mg/m ³ total dust synthetic TWA: 5 mg/m ³ respirable fraction synthetic (vacated) TWA: 2.5 mg/m ³ respirable dust natural (vacated) TWA: 10 mg/m ³ total dust synthetic (vacated) TWA: 5 mg/m ³ respirable fraction synthetic TWA: 15 mppcf natural	IDLH: 1250 mg/m ³ TWA: 2.5 mg/m ³ natural respirable dust

ACGIH: (American Conference of Governmental Industrial Hygienists)

OSHA: (Occupational Safety & Health Administration)
NIOSH IDLH: Immediately Dangerous to Life or Health

Other Exposure Guidelines Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992).

Exposure controls

Engineering Measures Showers
Eyewash stations
Ventilation systems.

Individual protection measures, such as personal protective equipment

Eye/Face Protection Safety glasses with side-shields.

Skin and body protection Chemical resistant apron. Protective gloves.

Respiratory protection If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

Hygiene measures Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical and chemical properties

Physical state	Aerosol		
Appearance	opaque	Odor	Solvent
Color	black	Odor Threshold	

<u>Property</u>	<u>Values</u>	<u>Remarks • Methods</u>
pH	No information available	
Melting/freezing point	No information available	
Boiling point/boiling range	No information available	
Flash Point	-91 °C / -132 °F	Based on propellant
Evaporation rate	No information available	
Flammability (solid, gas)	No information available	
Flammability Limits in Air		
upper flammability limit	No information available	
lower flammability limit	No information available	
Vapor pressure	No information available	
Vapor density	No information available	
Specific Gravity	0.724	
Water solubility	Practically insoluble	
Partition coefficient: n-octanol/water		
Autoignition temperature	No information available	Not applicable
Decomposition temperature		
Viscosity	No information available	
Explosive properties		

Other information

VOC Content(%) 98.56

10. STABILITY AND REACTIVITY

Reactivity

No data available

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

None under normal processing.

Conditions to Avoid

Extremes of temperature and direct sunlight.

Incompatible Materials

Store away from strong oxidizers and acids.

Hazardous Decomposition Products

None known based on information supplied.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information	Product does not present an acute toxicity hazard based on known information
Inhalation	Avoid breathing vapors or mists. Toxic by inhalation.
Eye contact	May be irritating to eyes. causes serious eye damage.
Skin contact	Avoid contact with skin. May be irritating to skin . Toxic in contact with skin.
Ingestion	Toxic if swallowed.

Component Information

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
ISOPROPYL ALCOHOL 67-63-0	= 1870 mg/kg (Rat)	= 4059 mg/kg (Rabbit)	= 72600 mg/m ³ (Rat) 4 h
METHANOL 67-56-1	= 6200 mg/kg (Rat)	-	= 22500 ppm (Rat) 8 h

Information on toxicological effects

Symptoms	Symptoms of overexposure ay be headache,dizziness, tiredness, nausea,and vomiting.Causes respiratory irritation.Causes skin and eye irritation.
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Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation	May be irritating to skin .
Eye damage/irritation	Risk of serious damage to eyes.
Sensitization	.
Germ Cell Mutagenicity	None known.
Carcinogenicity	There are no known carcinogenic chemicals in this product.
Reproductive toxicity	This product does not contain any known or suspected reproductive hazards.
Developmental Toxicity	None known.
Specific target organ systemic toxicity (single exposure)	May cause disorder and damage to the. Target Organs.
Specific target organ systemic toxicity (repeated exposure)	No information available.

Target Organ Effects	Central Nervous System (CNS), Central Vascular System (CVS), Eyes, Gastrointestinal tract (GI), Respiratory system, Skin.
Aspiration hazard	Not applicable.

Numerical measures of toxicity - Product Information

Unknown Acute Toxicity 0.0000023% of the mixture consists of ingredient(s) of unknown toxicity

The following values are calculated based on chapter 3.1 of the GHS document .

ATEmix (oral)	2605 mg/kg
ATEmix (dermal)	7814 mg/kg
ATEmix (inhalation-dust/mist)	13 mg/l

12. ECOLOGICAL INFORMATION

Ecotoxicity

Chemical Name	Toxicity to algae	Toxicity to fish	Toxicity to microorganisms	Toxicity to daphnia and other aquatic invertebrates
ISOPROPYL ALCOHOL 67-63-0	1000 mg/L EC50 Desmodesmus subspicatus 96h 1000 mg/L EC50 Desmodesmus subspicatus 72h	9640 mg/L LC50 Pimephales promelas 96h flow-through 11130 mg/L LC50 Pimephales promelas 96h static 1400000 µg/L LC50 Lepomis macrochirus 96h	-	13299 mg/L EC50 Daphnia magna 48h
METHANOL 67-56-1	-	28200 mg/L LC50 Pimephales promelas 96h flow-through 100 mg/L LC50 Pimephales promelas 96h static 19500 - 20700 mg/L LC50 Oncorhynchus mykiss 96h flow-through 18 - 20 mL/L LC50 Oncorhynchus mykiss 96h static 13500 - 17600 mg/L LC50 Lepomis macrochirus 96h flow- through	-	-

Persistence and degradability

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Bioaccumulation

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Chemical Name	log Pow
ISOPROPYL ALCOHOL 67-63-0	0.05
PROPANE/ISOBUTANE/N-BUTANE 68476-86-8	<=2.8
METHANOL 67-56-1	-0.77

Other adverse effects No information available

13. DISPOSAL CONSIDERATIONS

Waste treatment

Waste Disposal Methods This material, as supplied, is a hazardous waste according to federal regulations (40 CFR 261). Dispose of in accordance with federal, state, and local regulations.

Contaminated packaging Do not re-use empty containers.

14. TRANSPORT INFORMATION

DOT Ground CONSUMER COMMODITY ORM-D
or LIMITED QUANTITY

IATA UN1950, AEROSOLS, FLAMMABLE, 2.1, LTD. QTY.

IMDG UN1950, AEROSOLS, 2.1,LTD.QTY.

15. REGULATORY INFORMATION

International Inventories

Chemical Name	TSCA	DSL/NDSL	EINECS/ELI NCS	ENCS	IECSC	KECL	PICCS	AICS
ISOPROPYL ALCOHOL	X	X	X	X	X	X	X	X
PROPANE/ISOBUTAN E/N-BUTANE	X	X	X	Not listed	X	X	X	X
METHANOL	X	X	X	X	X	X	X	X
GRAPHITE	X	X	X	Not listed	X	X	X	X

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

CHINA - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

AICS - Australian Inventory of Chemical Substances

U.S. Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372:

Chemical Name	CAS-No	Weight %*	SARA 313 - Threshold Values %
METHANOL - 67-56-1	67-56-1	1-10	1.0

SARA 311/312 Hazard Categories

Acute Health Hazard	Yes
Chronic Health Hazard	Yes
Fire Hazard	Yes
Sudden Release of Pressure Hazard	Yes
Reactive Hazard	no

Clean Water Act

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302):

Chemical Name	Hazardous Substances RQs	Extremely Hazardous Substances RQs	RQ
METHANOL 67-56-1	5000 lb		RQ 5000 lb final RQ RQ 2270 kg final RQ

U.S. State Regulations**California Proposition 65**

This product contains the following Proposition 65 chemicals:

Chemical Name	California Prop. 65
METHANOL - 67-56-1	developmental

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
ISOPROPYL ALCOHOL 67-63-0	X	X	X
METHANOL 67-56-1	X	X	X
GRAPHITE 7782-42-5	X	X	X

EPA Pesticide Registration Number Not applicable

Canada

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all the information required by the CPR.

16. OTHER INFORMATION

<u>NFPA</u>	Health Hazard 2	Flammability 4	Instability 0	Physical and chemical hazards -
<u>HMIS</u>	Health Hazard 2	Flammability 4	Physical Hazard 1	Personal protection B

Prepared By Regulatory Affairs
Issuing date 05-Feb-2016
Revision Date 05-Feb-2016
Revision Note

Disclaimer

The information provided on this SDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

End of Safety Data Sheet