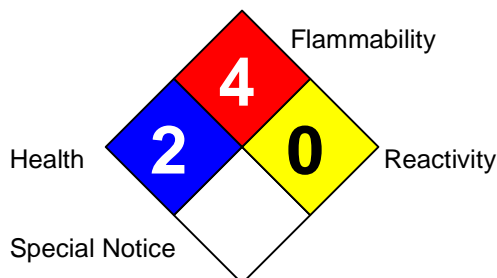


Material Safety Data Sheet

HMIS

| | |
|----------------------------|----------|
| HEALTH | 2 |
| FLAMMABILITY | 4 |
| REACTIVITY | 0 |
| PERSONAL PROTECTION | J |

NFPA



Section I – Product and Company Identification

| | | | | | |
|--------------------------------|------------------------------|----------------------------|----------------|--|--|
| Product Name/Trade Name | Graphite Plus Aerosol | | | | |
| Manufacturer | Cummings-Moore Graphite Co. | Emergency Phone | 1-800-255-3924 | | |
| | 1646 N. Green Ave. | Information Phone | 1-908-537-2155 | | |
| | Detroit, MI 48209 | Date Prepared | 5/11/07 | | |
| | | Preparer (optional) | LRM | | |

Section II – Hazard Ingredients/Identity Information

| Hazardous Components | CAS Number | OSHA PEL | ACGIH TLV | Other Limits | % (optional) |
|--------------------------------|------------|--------------|--|--------------|--------------|
| Isopropyl alcohol | 67-63-0 | 400 ppm | 400 ppm (TWA), 500 ppm (STEL) | n/a | < 60 |
| Propane / isobutane / n-butane | 68476-86-8 | 800 ppm | 1000 ppm (TWA) | n/a | < 35 |
| Methyl alcohol | 67-56-1 | 200 ppm skin | 200 ppm skin (TWA), 250 ppm skin (STEL) | n/a | < 5 |
| 1-methoxy-2-propanol | 107-98-2 | 100 ppm | 100 ppm (TWA), 150 ppm (STEL) | n/a | < 5 |
| Graphite | 7782-42-5 | 15 mppcf | 2.5 mg/m ³ | n/a | < 2 |

Section III – Physical / Chemical Characteristics

| | | | |
|--------------------------------|--------------|--|--|
| Boiling Point | -43 to 248°F | Specific Gravity (H₂O = 1) | 0.71 |
| Vapor Pressure (mm Hg) | 55-65 PSIG | Melting Point | n/a |
| Vapor Density (Air = 1) | > 1 | Evaporation Rate (Butyl Acetate = 1) | > 1 |
| Solubility in Water | Negligible | Appearance and Odor | Black liquid in aerosol package, alcohol odor |
| pH | n/a | | |

Section IV – Fire and Explosion Hazard Data

| | | | | | |
|---|--|--------------------------------|------|-------------|-----|
| Flash Point (Method Used) | -156°F | Flammable Limits: LEL = | 1.8% | UEL= | 36% |
| Extinguishing Media | Alcohol foam, CO ₂ , dry chemical, water fog | | | | |
| Special Fire Fighting Procedures | Containers can build up pressure if exposed to heat (fire). As in any fire, wear self-contained breathing apparatus pressure-demand (MSHA/NIOSH approved or equivalent) and full protective gear. | | | | |
| Unusual Fire and Explosion Hazards | Vapors can travel to a source of ignition and flash back. "Empty" containers retain product residue (liquid and/or vapor) and can be dangerous. DO NOT PRESSURIZE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND, OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION; THEY MAY EXPLODE AND CAUSE INJURY OR DEATH. Empty drums should be completely drained, properly bunged and promptly returned to a drum reconditioner, or properly disposed of. | | | | |

Section V – Reactivity Data

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|--|--|
| Stability | Stable under normal storage conditions. |
| Conditions to Avoid | All sources of ignition, welding arcs, and open flames. |
| Incompatibility (Materials to Avoid) | Strong acids, alkalis, oxidizers, and amines. |
| Hazardous Decomposition or Byproducts | Oxides of carbon, oxides of nitrogen, and may produce forms of chloride, chlorine, and phosgene. |
| Hazardous Polymerization | Will not occur under normal conditions. |

Section VI – Health Hazard Data

| Route(s) of Entry: Inhalation? | Yes | Skin? | Yes | Ingestion? | Yes | |
|---|---|-------|------------------|------------|-----------------|----|
| Carcinogenicity: | NTP? | No | IARC Monographs? | No | OSHA Regulated? | No |
| Health Hazards (Acute and Chronic) | *** Emergency Overview *** Vapors irritating to eyes and respiratory tract. Vapors may cause flash fire or explosion. Eye Contact: Liquid, aerosols, and vapors of this product are irritating and can cause pain, tearing, reddening and swelling accompanied by a stinging sensation and/or feeling like that of fine dust in the eyes. Skin Contact: Prolonged or repeated contact can result in defatting and drying of skin which may result in skin irritation and dermatitis (rash). Inhalation: Headaches, dizziness, nausea, decreased blood pressure, changes in heart rate and cyanosis may result from over exposure to vapor or skin exposure. Prolonged inhalation may be harmful. Ingestion: This material may be harmful or fatal if swallowed. Chronic Effects: Overexposure may cause nervous system damage, lung damage, kidney damage, and liver disorder (edema, proteinuria) and damage. | | | | | |
| Signs and Symptoms of Exposure | Irritation as noted above. Eye watering, headaches, nausea, dizziness and loss of coordination are signs that exposure levels are too high. | | | | | |
| Medical Conditions Generally Aggravated by Exposure | Preexisting eye, skin, and respiratory disorders may be aggravated by exposure to this product. | | | | | |
| Emergency and First Aid Procedures | Eye Contact: Immediately flush eyes with plenty of water for 15 minutes while holding eyelids open. Get medical attention. Skin Contact: Remove contaminated clothing/shoes. Wash with soap and water. Get medical attention if irritation develops or persists. Do not reuse clothing until cleaned. Inhalation: Remove victim to fresh air and provide oxygen if breathing is difficult. Give artificial respiration if not breathing. Get immediate medical attention. Ingestion: Get medical attention immediately. Do NOT induce vomiting. Give victim a glass of water or milk. Call a physician or poison control center immediately. Never give anything by mouth to an unconscious person. | | | | | |

Section VII – Precautions for Safe Handling and Use

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| Steps to Be Taken in Case Material is Released or Spilled | Warning – flammable. Eliminate all ignition sources. Handling equipment must be grounded to prevent sparking. Absorb spill with inert material (e.g. dry sand or earth), then place in a chemical waste container. |
| Waste Disposal Method | Dispose in accordance with all federal, state, and local regulations. |
| Precautions to Be Taken in Handling and Storing | Keep away from heat, sparks, and flame. Do not store above 120°F (48°C). Avoid breathing vapors. Avoid prolonged contact with skin. Wash thoroughly after handling. See Section IV. |
| Other Precautions | Vapors are heavier than air and will collect in low areas. |

Section VIII – Control Measures

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|--|---|
| Respiratory Protection (Specify Type) | If exposure may or does exceed occupational exposure limits (see section II), a NIOSH/MSHA approved air-purifying respirator with an organic vapor cartridge or canister may be permissible. Protection provided by air-purifying respirators is limited. Use a positive pressure air supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air purifying respirators may not provide adequate protection. |
| Ventilation: | Use ventilation as required to maintain vapor concentrations below TLV. |
| Eye Protection | Wear safety glasses with side shields (or goggles) and a face shield. |
| Gloves and Other Protective Clothing | Where contact is likely, wear chemical-resistant gloves, a chemical suit, rubber boots, and chemical safety goggles plus a face shield. |
| Work/Hygienic Practices | Wash thoroughly before eating, drinking, using restroom, smoking, or applying cosmetics. Remove and air-dry contaminated clothing in a well-ventilated area, then wash before reusing. Use only in a well ventilated area. Follow all MSDS/label precautions even after container is emptied because they may contain residues. Avoid repeated or prolonged contact with skin. Avoid breathing vapors from heated material. Avoid contact with eyes, skin, and clothing. Clean spills or overspray promptly – they may present a slippage hazard. |