
SECTION 1 CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

COMETALS
222 Bridge Plaza South
Ft. Lee, NJ 07024

EMERGENCY CONTACT:
CHEMTREC (R)
(800) 424-9300

SUBSTANCE: GRAPHITE, SYNTHETIC

TRADE NAMES/SYNONYMS:
00223639; RTECS MD9659600

CHEMICAL FAMILY: non-metallic

CREATION DATE: Aug 19 1999
REVISION DATE: Oct 31 2007

SECTION 2 COMPOSITION, INFORMATION ON INGREDIENTS

COMPONENT: GRAPHITE, SYNTHETIC
CAS NUMBER: 7782-42-5
EC NUMBER (EINECS): 231-955-3
PERCENTAGE: 100.0

OTHER CONTAMINANTS:
MAY CONTAIN TRACES OF IRON DUST

SECTION 3 HAZARDS IDENTIFICATION

NFPA RATINGS (SCALE 0-4): HEALTH=1 FIRE=1 REACTIVITY=0

EMERGENCY OVERVIEW:

PHYSICAL FORM: flakes, crystals, powder

ODOR: odorless

MAJOR HEALTH HAZARDS: No significant target effects reported.

PHYSICAL HAZARDS: Electrostatic charges may be generated by flow, agitation,
etc. Dust/air mixtures may ignite or explode.

POTENTIAL HEALTH EFFECTS:

INHALATION:

SHORT TERM EXPOSURE: no information on significant adverse effects

LONG TERM EXPOSURE: difficulty breathing, lung damage

SKIN CONTACT:

SHORT TERM EXPOSURE: no information on significant adverse effects

LONG TERM EXPOSURE: no information is available

EYE CONTACT:

SHORT TERM EXPOSURE: mechanical irritation

LONG TERM EXPOSURE: no information is available

INGESTION:

SHORT TERM EXPOSURE: no information is available

LONG TERM EXPOSURE: no information is available

CARCINOGEN STATUS:

OSHA: No

NTP: No

IARC: No

SECTION 4 FIRST AID MEASURES

INHALATION: If adverse effects occur, remove to uncontaminated area. Give artificial respiration if not breathing. Get immediate medical attention.

SKIN CONTACT: Wash skin with soap and water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention, if needed. Thoroughly clean and dry contaminated clothing and shoes before reuse.

EYE CONTACT: Flush eyes with plenty of water for at least 15 minutes. Then get immediate medical attention.

INGESTION: If a large amount is swallowed, get medical attention.

SECTION 5 FIRE FIGHTING MEASURES

FIRE AND EXPLOSION HAZARDS: Slight fire hazard. Dust/air mixtures may ignite or explode. Dust/air mixtures may ignite or explode. Electrostatic charges may be generated by flow, agitation, etc.

EXTINGUISHING MEDIA: regular dry chemical, carbon dioxide, water, regular foam

Large fires: Use regular foam or flood with fine water spray.

FIRE FIGHTING: Move container from fire area if it can be done without risk. Do not scatter spilled material with high-pressure water streams. Dike for later disposal. Use extinguishing agents appropriate for surrounding fire. Avoid inhalation of material or combustion by-products. Stay upwind and keep out of low areas.

SECTION 6 ACCIDENTAL RELEASE MEASURES

OCCUPATIONAL RELEASE:

Collect spilled material in appropriate container for disposal. Keep out of water supplies and sewers. Keep unnecessary people away, isolate hazard area and deny entry.

SECTION 7 HANDLING AND STORAGE

STORAGE: Store and handle in accordance with all current regulations and standards. Keep separated from incompatible substances.

HANDLING: Use methods to minimize dust.

SECTION 8 EXPOSURE CONTROLS, PERSONAL PROTECTION

EXPOSURE LIMITS:

GRAPHITE, SYNTHETIC:

5 mg/m³ OSHA TWA (respirable dust fraction)

15 mg/m³ OSHA TWA (total dust)

10 mg/m³ OSHA TWA (total particulate) (vacated by 58 FR 35338, June 30, 1993)

2 mg/m³ ACGIH TWA (respirable particulate) (all forms except graphite fibers)

1.5 mg/m³ DFG MAK (respirable dust fraction)

MEASUREMENT METHOD: Particulate filter; Gravimetric; NIOSH IV # 0500, Nuisance Dust (total), # 0600 (respirable)

VENTILATION: Ventilation equipment should be explosion-resistant if explosive concentrations of material are present. Provide local exhaust ventilation system. Ensure compliance with applicable exposure limits.

EYE PROTECTION: Wear splash resistant safety goggles. Provide an emergency eye wash fountain and quick drench shower in the immediate work area.

CLOTHING: Protective clothing is not required under normal conditions.

GLOVES: Protective gloves are not required, but recommended.

RESPIRATOR: Under conditions of frequent use or heavy exposure, respiratory protection may be needed. Respiratory protection is ranked in order from minimum to maximum. Consider warning properties before use.

Any dust, mist, and fume respirator.

Any air-purifying respirator with a high-efficiency particulate filter.

Any powered, air-purifying respirator with a dust, mist, and fume filter.

Any powered, air-purifying respirator with a high-efficiency particulate filter.

For Unknown Concentrations or Immediately Dangerous to Life or Health -

Any supplied-air respirator with full facepiece and operated in a pressure-demand or other positive-pressure mode in combination with a separate escape supply.

Any self-contained breathing apparatus with a full facepiece.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE: solid

APPEARANCE: lustrous

TEXTURE: oily

PHYSICAL FORM: flakes, crystals, powder

ODOR: odorless

MOLECULAR WEIGHT: 12.01

MOLECULAR FORMULA: C
BOILING POINT: 7592 F (4200 C)
MELTING POINT: Not available
VAPOR PRESSURE: @ 20 C (negligible)
VAPOR DENSITY: Not applicable
SPECIFIC GRAVITY (water=1): 2.09-2.25
WATER SOLUBILITY: insoluble
PH: Not applicable
VOLATILITY: Not applicable
ODOR THRESHOLD: Not available
EVAPORATION RATE: Not applicable
COEFFICIENT OF WATER/OIL DISTRIBUTION: Not available
SOLVENT SOLUBILITY:
Soluble: liquid iron
Insoluble: acids, alkali
FLASHPOINT: Not applicable

SECTION 10 STABILITY AND REACTIVITY

REACTIVITY: Stable at normal temperatures and pressure.

CONDITIONS TO AVOID: Avoid heat, flames, sparks and other sources of ignition.
Avoid contact with incompatible materials.

INCOMPATIBILITIES: halogens, oxidizing materials, metals, bases, metal oxides

GRAPHITE, SYNTHETIC:

CHLORINE TRIFLUORIDE: Ignition.
FLUORINE: Ignition.
OXIDIZERS (STRONG): Fire and explosion hazard.
POTASSIUM (BURNING): Violent explosion.
POTASSIUM (LIQUID): Vigorous reaction.
POTASSIUM PEROXIDE: Fire and explosion hazard.
POTASSIUM SUPEROXIDE: Fire and explosion hazard.

HAZARDOUS DECOMPOSITION:

Thermal decomposition products: oxides of carbon

POLYMERIZATION: Will not polymerize.

SECTION 11 TOXICOLOGICAL INFORMATION

GRAPHITE, SYNTHETIC:

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: respiratory disorders, skin disorders and allergies

HEALTH EFFECTS:

INHALATION:

ACUTE EXPOSURE:

GRAPHITE, SYNTHETIC: Rats exposed to 500 mg/m³ experienced transient inflammation and alveolar macrophage activation for about 24-48 hours following exposure. Excessive concentrations of nuisance dusts in the

workroom may cause unpleasant deposits in the nasal passages.

CHRONIC EXPOSURE:

GRAPHITE, SYNTHETIC: Some evidence suggests that simple and complicated pneumoconiosis similar to that seen in coal workers may occur with repeated exposure. A worker exposed to synthetic graphite dust for 17 years, developed simple pneumoconiosis with cough, dyspnea, reduced pulmonary function, and X-ray changes. At autopsy, there was emphysema with scattered fine black nodules with some strands of fibrous tissue and ventricle hypertrophy.

SKIN CONTACT:

ACUTE EXPOSURE:

GRAPHITE, SYNTHETIC: Allergic dermatitis has been reported. Excessive concentration of nuisance dusts in the workroom may cause unpleasant deposits on the skin and in the ears. Injury to the skin may occur by chemical or mechanical action or by the vigorous skin cleansing procedures necessary for their removal.

CHRONIC EXPOSURE:

GRAPHITE, SYNTHETIC: No data available.

EYE CONTACT:

ACUTE EXPOSURE:

GRAPHITE, SYNTHETIC: Graphite is chemically inert but acts as a superficial foreign body and may cause slight mechanical irritation and discoloration of lids and conjunctivae.

CHRONIC EXPOSURE:

GRAPHITE, SYNTHETIC: No data available.

INGESTION:

ACUTE EXPOSURE:

GRAPHITE, SYNTHETIC: No data available.

CHRONIC EXPOSURE:

GRAPHITE, SYNTHETIC: No data available.

SECTION 12 ECOLOGICAL INFORMATION

Not available

SECTION 13 DISPOSAL CONSIDERATIONS

Dispose in accordance with all applicable regulations.

SECTION 14 TRANSPORT INFORMATION

U.S. DEPARTMENT OF TRANSPORTATION: No classification assigned.

CANADIAN TRANSPORTATION OF DANGEROUS GOODS: No classification assigned.

LAND TRANSPORT ADR/RID: No classification assigned.

AIR TRANSPORT IATA/ICAO: No classification assigned.

MARITIME TRANSPORT IMDG: No classification assigned.

SECTION 15 REGULATORY INFORMATION

U.S. REGULATIONS:

CERCLA SECTIONS 102a/103 HAZARDOUS SUBSTANCES (40 CFR 302.4): Not regulated.

SARA TITLE III SECTION 302 EXTREMELY HAZARDOUS SUBSTANCES (40 CFR 355.30):
Not regulated.

SARA TITLE III SECTION 304 EXTREMELY HAZARDOUS SUBSTANCES (40 CFR 355.40):
Not regulated.

SARA TITLE III SARA SECTIONS 311/312 HAZARDOUS CATEGORIES (40 CFR 370.21):
ACUTE: Yes
CHRONIC: No
FIRE: No
REACTIVE: No
SUDDEN RELEASE: No

SARA TITLE III SECTION 313 (40 CFR 372.65): Not regulated.

OSHA PROCESS SAFETY (29CFR1910.119): Not regulated.

STATE REGULATIONS:

California Proposition 65: Not regulated.

CANADIAN REGULATIONS:

WHMIS CLASSIFICATION: Not determined.

EUROPEAN REGULATIONS:

EC CLASSIFICATION (CALCULATED): Not determined.

GERMAN REGULATIONS:

WATER HAZARD CLASS (WGK):
STATE OF CLASSIFICATION: VwVwS
CLASSIFICATION UNDER HAZARD TO WATER: 0

NATIONAL INVENTORY STATUS:

U.S. INVENTORY (TSCA): Listed on inventory.

TSCA 12(b) EXPORT NOTIFICATION: Not listed.

SECTION 16 OTHER INFORMATION

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