

Safety Data Sheet

Prepared on 04/11/2016
This form is subject to changes

1. Identification of substance:

Product Name: Carbon Black
Product Number(s): CARB-BLK

CAS-No. 1333-86-4

Manufacturer/Supplier:

Graphene Supermarket
www.graphene-supermarket.com
Graphene Laboratories, Inc.
4603 Middle Country Rd. Unit 125
Calverton, NY11933
info@graphenelab.com
Phone: (516) 382-8649
Fax: (781) 287-1248

2. Hazards identification

2.1 Classification of the substance or mixture

EU Classification: This substance is not classified as a hazardous substance according to EC1272/2008(CLP) and Directive 67/548/EEC

GHS Classification: Not classified as dangerous according to the GHS.

USA OSHA Status: This substance is classified as hazardous according to the United States 2012 OSHA Communication Standard (29 CFR 1910.1200) only due to the potentially combustible nature of carbon black dust properties. According to the criteria in OSHA HCS(2012), 29CFR 1910.1200 for classification of hazardous substances, carbon black is not classified as hazardous regarding its toxicology or eco-toxicological endpoint.

2.2 GHS Label elements, including precautionary statements

Pictogram

No Pictogram is Required

Signal word (s): WARNING

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS

Carcinogenicity:

IARC, 1995: "Carbon black is possibly carcinogenic to humans (Group 2B). Not listed as a carcinogen by NTP, ACGIH, OSHA, or the European Union.

ACGIH: The ACGIH classifies carbon black as A3, "Confirmed animal carcinogen with unknown relevance to humans."

California Proposition 65: Carbon black (applies only to airborne, unbound particles of respirable size) is listed on California Proposition 65, "Substances Known to Cause Cancer" list.

Note on PAH Content: Most carbon blacks contain trace quantities of PAHs present at levels less than 0.1% unless otherwise specified by the supplier. There are no known human carcinogenic effects related to the PAH content of carbon black. Recent research has shown that the PAH content of carbon blacks is not released in biological fluids and thus not available for biological activity. See Section 16.

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Composition : Carbon Black 100%

- Identification number(s):
- EC Number: 215-609-9

4. First aid measures

• After inhalation

Supply fresh air. Seek medical advice if irritation persists.

• After skin contact

Immediately wash with warm water and mild soap and rinse thoroughly. Mechanical irritation of skin is possible.

• After eye contact

Rinse opened eye for several minutes under running water. Then consult a doctor.

• After ingestion

Get immediate medical attention. Rinse mouth with water but do not give water Do not induce vomiting unless directed by medical personnel. Carbon black is not known to be toxic by ingestion.

- Indication of any immediate medical attention and special treatment needed: If patient exhibits shortness of breath, choking, powder inundated eyes or mouth; immediate medical attention may be required.

5. FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media

Dry chemical extinguisher, water fog, carbon dioxide, foam, nitrogen: Avoid high fluid velocity to avoid spreading. A direct stream of water may spread the fire to surrounding areas. Carbon black may be in a state of combustion, but may not show any obvious evidence of a flame or surface incandescence. Carbon black that has been burning should be carefully observed for at least cooled to room temperature and is not smoldering.

5.2 Special hazards arising from the substance or mixture

Special hazards: None known, products of combustion: In case of fire, the following can be released: Carbon monoxide (CO), Carbon dioxide (CO₂), sulfur dioxide (SO₂)

5.3 Advice for firefighters

Use self-contained air pack, gloves, safety goggles

5.4 Further information

No data available

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Wear approved dust mask, safety goggles, and conventional work gloves. Use a properly filtered vacuum system. A HEPA filter equipped vacuum is recommended. To avoid creating use compressed air.

For personal protection see section 8.

6.2 Environmental precautions

Carbon black is insoluble and will not pose any soluble ion hazards to the environment. However, carbon black should not be allowed to enter ground water or natural water bodies. Good housekeeping practices should be followed and spilled material should be cleaned up, and disposed of in an appropriate manner.

6.3 Methods and materials for containment and cleaning up

up: No special containment needed other than conventional vacuuming and waste containment. Avoid creating dust. Carbon black may be electrically conductive and any cleanup methods should avoid contact with electrical circuitry. Carbon black will not “wet” so it tends to float on water unless contacted by a surfactant.

6.4 Reference to other sections

For disposal see section 13.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Use conventional methods, but avoid dusting conditions. Keep powder from contacting skin and eyes. Carbon black may conduct electricity. Avoid contact between carbon black and electrical circuitry.

Slip Hazard: Carbon black may present a slip hazard if spilled on wet or dry pedestrian surfaces. Avoid creating dust during handling, product transfer/addition, or other processing. Do not use compressed air to “clean up” carbon black.

Do not use electric or flame welding equipment when carbon black is present

7.2 Conditions for safe storage, including any incompatibilities

Storage and Incompatibilities Store all carbonaceous materials in a dry location away from sources of heat or flame. Do not store in the presence of volatile materials as volatile species may become adsorbed on the surface of some carbon black products. Carbon black is incompatible with all oxidizing agents.

Dust Explosibility Hazards: Carbon black powder poses a slight risk of dust explosion hazard.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Component: Carbon Black CAS No. 1333-86-4

ACGIH TWA: 3.0 mg/m³ Inhalable dust (Control Reference :2014 ACGIH TLV Handbook)

Appropriate engineering controls: Use process enclosures and/or exhaust ventilation to keep airborne dust concentrations below the applicable occupational exposure limit.

8.2 Exposure controls

General protective and hygienic measures

The usual precautionary measures for handling chemicals should be followed. Keep away from foodstuffs, beverages and feed.

Avoid contact with the eyes. Safety glasses with side-shields conforming to EN166 Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Approved dust mask, type N95 recommended. Under conditions where exposure levels are not

under reasonable control a positive pressure air supplied respirator may be recommended. Wear impervious clothing to minimize skin contact. No special glove composition is required for carbon black. Gloves may be used to protect hands from carbon black soiling. Use of a barrier cream may help to prevent skin drying. Wash hands and other exposed skin with mild soap and water.

Carbon black, spilled on pedestrian surfaces may pose a significant slip hazard.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

- **Form:** Solid
- **Color:** Black
- **Odor:** Odorless
- **Change in condition:** No data available
- **Melting point/Melting range:** Sublimates at 3652C
- **Boiling point/Boiling range:** No data available
- **Sublimation temperature / start:** No data available
- **Flash point:** Not applicable
- **Ignition temperature:** No data available
- **Decomposition temperature:** Oxidizes above 400C
- **Danger of explosion:** Product does not present an explosion hazard.
- **Lower Explosion limits:** 50-375g/m³
- **Upper:** No data available
- **Vapor pressure:** No data available
- **Density:** No data available
- **Solubility in / Miscibility with Water:** Insoluble

9.2 Other safety information

No data available

10. STABILITY AND REACTIVITY

10.1 Reactivity

May form explosible mixtures with air. See section 9 and section 5.

10.2 Chemical stability

Stable. Will not polymerize or self react spontaneously.

10.3 Possibility of hazardous reactions

No data available

10.4 Conditions to avoid

Avoid contact with oxidizing agents. Carbon black will begin to oxidize at temperatures above 450 C.

10.5 Incompatible materials

All oxidizing agents

10.6 Hazardous decomposition products

Carbon Dioxide (CO₂), Carbon Monoxide (CO), sulfur dioxide (SO₂)

Other decomposition products - No data available
In the event of fire: see section 5

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

- **Acute oral toxicity:** LD50 > 15400 mg/kg (rat)
- **Acute inhalation toxicity:** Data not available
- **Primary irritant effect:**
- **On the skin:** No information available.
- **On the eye:** NA
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**

Overall Carcinogenicity Assessment: Not carcinogenic

IARC, 1995: "Carbon black is possibly carcinogenic to humans (Group 2B).

NTP: Carbon black is not designated a carcinogen by the U.S. National Toxicological Program or OSHA.

ACGIH: The ACGIH classifies carbon black as "A4", "not classifiable as a human carcinogen".

California Proposition 65: Carbon black (applies only to airborne, unbound particles of respirable size) is listed on California Proposition 65, "Substances Known to Cause Cancer" list.

12. ECOLOGICAL INFORMATION

12.1 Toxicity

Carbon black is insoluble. To the best of our knowledge, present any significant environmental hazards.

12.2 Persistence and degradability

Carbon black is an inorganic and reduced form of carbon and will not degrade further under normal conditions. This form of carbon is stable, unreactive in water under ambient conditions, and is insoluble.

12.3 Bioaccumulative potential

There is no evidence indicating that carbon black is bioaccumulative.

12.4 Mobility in soil

Carbon black is not expected to have mobility in soil as it is an insoluble, inorganic substance.

12.5 Results of PBT and vPvB assessment

Carbon black is not a persistent bioaccumulative and toxic substance.

12.6 Other adverse effects

No data available

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product

Dispose of in a manner which conforms to local, state, regional, and government regulations. Do not allow carbon black to enter sewers or natural waterways.

RCRA: Carbon black is not classified as a hazardous waste under USA RCRA.

Contaminated packaging

Packaging should be completely emptied of contents and disposed of in a manner specified by the recycler/regional disposal contractor. Dust formation from packaging residues should be avoided. Store empty packaging in a suitable receptacle.

14. TRANSPORT INFORMATION**• Product related hazard information:****• National regulations**

TSCA: None of the ingredients is listed.

Clean Air Act: None of the ingredients is listed.

Clean Water Act: None of the ingredients is listed.

• Information about limitation of use:

For use only by technically qualified individuals.

15. REGULATORY INFORMATION

Safety, health and environmental regulations/legislation specific for the substance or mixture EU regulation: Authorisations: No information available. Restrictions on use: No information available. EINECS/ELINCS: CAS# 1333-86-4 is listed. DSD (67/548/EEC): CAS# 1333-86-4 is not listed.

Chemical Safety Assessment: No Chemical Safety Assessment has been carried out for this substance.

SARA 302 Components

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

16. OTHER INFORMATION

Employers should use this information only as a supplement to other information gathered by them, and should make independent judgment of suitability of this information to ensure proper use and protect the health and safety of employees. This information is furnished without warranty, and any use of the product not in conformance with this Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user.