

MATERIAL SAFETY DATA SHEET

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

Product Name: **PIGMENT BLACK**
Synonyms: Carbon Black, Pigment Black
Product Use/Class: Various Industrial Products

2. HAZARDS IDENTIFICATION

Indication of danger: Not a hazardous substance or preparation according to EC-directives 67/548/EEC or 99/45/EC and their various amendments and adaptations.

Principle Routes of Exposure: Inhalation, Eye contact, Skin contact.

POTENTIAL HEALTH EFFECTS

Eye Contact: A slight irritant based on animal testing
Skin Contact: A moderate irritant based on animal testing product. May cause redness and drying of skin. The product contains a component which is not a skin sensitizer but may be a fatiguing agent based on animal testing.

Inhalation: Possibly irritating.

Ingestion: Health injuries are not known or expected under normal use. Low hazard for usual industrial.

Target Organ Effects: Lungs

Medical Conditions Aggravated: Asthma, Respiratory disorder by Exposure

Potential Environmental Effects: No special environmental precautions required.
Not soluble in water.

General: Some studies have linked exposure of carbon black dust to lung effects. IARC classifies carbon black as a Category 2B Carcinogen (known animal carcinogen, possible human carcinogen) based on inhalation studies. However, the manufacturers of carbon black state that epidemiologic studies of workers in the carbon black industry in the U.S. and W. Europe show no significant adverse health effects due to occupational exposure. Because this product is a free-flowing liquid or paste, dust inhalation is not an expected route of exposure.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS Number	EINECS/ELINCS	Weight %	EU Classification
Pigment Black	1333-86-4	215-609-9	100	None

4. FIRST AID MEASURES

Eye Contact: In case of contact, immediately flush eyes with plenty of water. Obtain medical attention if irritation develops.

Skin Contact: Remove contaminated clothing/shoes. Flush skin with water. Follow by washing with soap and water. If symptoms develop or persist, obtain medical attention. Wash clothing before reuse.

Inhalation: If inhaled, remove to fresh air. If breathing is difficult, give oxygen. If unconscious, evaluate the need for artificial respiration. Get immediate medical attention.

Ingestion: If swallowed, do NOT induce vomiting. Have victim drink 8-10 ounces of water to dilute material in stomach. Get medical attention immediately. Never give anything by mouth to an unconscious person.

5. FIRE FIGHTING MEASURES

Flash Point: > 230 F
Flash Point Method: Seta flash Closed Cup
Lower Explosive Limit: Not determined
Upper Explosive Limit: Not Determined
OSHA Flammability Classification: None
Auto ignition Temperature: Not Determined

Extinguishing Media: Use water spray or fog, foam, dry chemical or CO2.
Fire Fighting Procedures: As in any fire, wear self-contained positive-pressure breathing apparatus, (MSHA/NIOSH approved or equivalent) and full protective gear. Containers can build up pressure if exposed to heat (fire). Cool with water spray.

6. ACCIDENTAL RELEASE MEASURES

Steps to Be Taken in Case Material

Is Released or Spilled: Use personal protective equipment as described in Section 8. Absorb spill with inert material and place in a chemical waste container. Obey relevant local,

state, provincial and federal laws and regulations. Do not contaminate any lakes, streams, ponds, groundwater, or soil.

7. HANDLING AND STORAGE

Handling: Wash thoroughly after handling. Follow all MSDS/label precautions even after container is emptied because it may retain product residues. Avoid contact with eyes, skin and clothing.

Storage: Store in a cool, dry place. Keep container closed when not in use.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Limits

	Value	Limit	Reference
NJTSR No. 56705700001-5382P	N.E.	TWA	OSHA/ ACGIH
	N.E.	STEL	OSHA/ ACGIH
Carbon black, amorphous	3.5 mg/m ³	TWA	OSHA/ ACGIH
	N.E.	STEL	OSHA/ ACGIH

Engineering Controls: Use adequate ventilation to maintain exposures below occupational limits. Provide appropriate exhaust ventilation at machinery and at the places where dust can be generated.

Respiratory Protection: A respiratory protection program that meets OSHA 1910.134 and ANSI Z88.2 or applicable federal/provincial requirements must be followed whenever workplace conditions warrant respirator use. NIOSH's "Respirator Decision Logic" may be useful in determining the suitability of various types of respirators.

Eye Protection: Use chemical splash goggles.

Skin Protection: Use impermeable gloves.

Other Protective Equipment: A safety shower and eye wash fountain should be readily available. To identify additional Personal Protective Equipment (PPE) requirements, it is recommended that a hazard assessment in accordance with the OSHA PPE Standard (29CFR1910.132) be conducted before using this product.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Black powder or pellets

Odor:

weak odor

Vapor Pressure:	Not available
Vapor Density (Air = 1):	Is heavier than air
Specific Gravity:	Not determined
Boiling Point:	Not available
pH:	1.5-8
Viscosity:	Not determined
Flash Point:	Not applicable
Water Solubility:	Not applicable
Evaporation Rate:	Is slower than Butyl Acetate
Autoignition Temperature:	>140°C(transport)
Method:	IMDG-Code
Explosion Limits in Air-upper (%):	Not determined
Explosion Limits in Air-lower(%):	50g/m ³ (dust)
Burn Velocity:	>45 seconds
(not classifiable as "Highly Flammable", or "Easily Ignitable")	

10. STABILITY AND REACTIVITY

Stability:	This product is stable under normal storage conditions.
Hazardous Polymerization:	Will not occur under normal conditions.
Conditions to Avoid:	High temperature.
Incompatibility with Other Materials:	Oxidizing materials. Strong acids. Peroxides. Hydrazides. Alkali metals.
Hazardous Polymerization:	Hazardous polymerization does not occur.
Mechanical Sensitivity (shock):	Not sensitive to mechanical impact.
Condition to Avoid:	Do not expose to temperatures above 300°C Keep away from oxidizing agents in order to avoid exothermic reactions.

11. TOXICOLOGICAL INFORMATION

Component Toxicological Information:	Carbon black, amorphous
Oral LD50 (rat):	> 10,000 mg/kg
Inhalation LC50 (rat):	6750 mg/m ³ /4h
Reproductive Toxicity:	Did not show effects in animal experiments.
Sensitizing Effects:	Contains no known sensitizers.
Synergistic Material:	None reasonably foreseeable.

12. ECOLOGICAL INFORMATION

Aquatic Toxicity:	Fish (Brachydanio rerio): LC50(96hr)>1,000mg/L (Method: OECD203). Daphnia magna:EC50(24hr)>5,600mg/L.(Method:OECD202) Algae (Scenedesmus subspicatus):EC50(72hr)>10,000mg/L. Algae (Scenedesmus subspicatus):NOEC>=10,000mg/L.
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Activated sludge:EC0(3hr)>=800mg/L.(Method:DEVL3TTC test).

ENVIRONMENTAL FATE

Mobility: Not expected to migrate.Insoluble.

Bioaccumulation: Not expected due to physicochemical properties of the substance.

Persistence: Not expected to degrade.

Distribution to Environmental

Compartments: Insoluble.Expected to remain on soil surface.

13. DISPOSAL CONSIDERATIONS

Disposal Method: Waste must be disposed of in accordance with federal, state, provincial and local regulations. CONTAINER DISPOSAL: Empty containers by removing the top and inverting to allow all free flowing product to drain. To meet regulatory criteria, the container is considered empty when less than 3% remains in the container. Additional special handling is not typically required and the empty container can be discarded with other non-hazardous trash.

Note: Local disposal regulations may be more stringent and require additional restrictions or precautions. Customers should check with their local disposal company, municipal or state authority. Recycle of plastic or metal containers may require clean rather than empty containers. In this case the containers can be rinsed with water until the containers are considered generally product free.

14. TRANSPORT INFORMATION

The following organizations do not classify carbon black as a "hazardous cargo"if it is" carbon,non-activated,mineral origin".

- Canadian Transport of Dangerous Goods Regulation
- European Transport of Dangerous Goods Regulation
- GGVS,GGVE,RID,ADR,IMDG Code,ICAO-TI
- United Nations (no UN number)
- US Department of Transportation

UN Number: None

UN Proper Shipping Class: Not classified

UN Shipping Class: Not classified

UN Packing Group: Not classified

International Transportation "Carbon black,non-activited,mineral origin"

Identification: Not dangerous according to IMDG-Code.
Not dangerous according to ICAO-TI.

US Rail Regulations: Not classified

15. REGULATORY INFORMATION

U.S. Federal Regulations

OSHA:

This document has been prepared in accordance with the MSDS requirements of the OSHA Hazard Communication Standard.

Clean Air Act Section 112:

This product contains the following components present at or above the OSHA de minimus level and listed as Hazardous Air Pollutants:

None

This product contains the following components present at or above the OSHA de minimus level and listed as Extremely Hazardous Air Pollutants:

None

SARA Section 302:

This product contains the following

g components listed as Extremely Hazardous Substances:

None

SARA Section 311/312:

Hazard Classifications: Immediate (acute)

SARA Section 313:

This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372:

None

TSCA:

This product or its components are listed in or exempt from the TSCA inventory requirements. This product contains the following non-proprietary substances subject to export notification under Section 12(b) of TSCA:

None

State Regulations California (Proposition 65):

This product contains the following substances known to the State of California to cause cancer:

None

This product contains the following substances known to the State of California to cause adverse reproductive effects:

None

International Regulations

Summary of International Chemical Inventory Status

Canada

On inventory

Europe	On inventory
South Korea	On inventory
Australia	Not on inventory

16. OTHER INFORMATION

HMIS Ratings: Health - 2 Flammability - 1 Reactivity - 0
Ratings Key: 4 = Highest hazard, 0 = Lowest hazard,
= Chronic health hazard, N = No rating for powders
NFPA Ratings: Health - 1 Flammability - 1 Reactivity - 0
Ratings Key: 4 = Highest hazard, 0 = Lowest hazard, N = No rating for powders
Key to abbreviations used:
NA: Not applicable
NAV: Not available
NE: Not established
NJTSR No: New Jersey Trade Secret Registry Number
R: Registered Trademark.
TM: Trademark.

Revision Summary:

The information contained herein is based on current knowledge and experience; no responsibility is accepted that the information is sufficient or correct in all cases. Users should consider these data only as a supplement to other information gathered by them and must make independent determinations of suitability and completeness of information from all sources to assure proper use and disposal of these materials and the safety and health of employees and customers and the protection of the environment.