

SECTION 1 PRODUCT AND COMPANY IDENTIFICATION

**MATERIAL SAFETY DATA SHEET
CARBON BLACK
ACETYLENE BLACK**

Company Identification:
JACAAB LLC
4155 Manchester Avenue
St. Louis, MO 63110

Product Information:
MSDS Requests: (314) 652-5400
Technical Information: (800) 852-5531

24-Hour Emergency Telephone Numbers
HEALTH: CHEMTREC 800-424-9300

SECTION 2 COMPOSITION/ INFORMATION ON INGREDIENTS

COMPONENT	CAS NUMBER	AMOUNT
CARBON BLACK	1333-86-4	100.00 % weight

Occupational Exposure Limits:

Component	Limit	TWA	STEL	Ceiling	Notation
CARBON BLACK	ACGIH_TLV	3.5 mg/m3	NA	NA	NA
CARBON BLACK	OSHA_PEL	3.5 mg/m3	NA	NA	NA

SECTION 3 HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

Odorless black powder.

- MAY CAUSE RESPIRATORY TRACT IRRITATION IF INHALED

IMMEDIATE HEALTH EFFECTS:

Eye: Not expected to cause prolonged or significant eye irritation.

Skin: Not expected to be harmful to internal organs if absorbed through the skin. Contact with the skin is not expected to cause prolonged or significant irritation.

Ingestion: Not expected to be harmful if swallowed.

Inhalation: The dust from this material may cause respiratory irritation. Symptoms of respiratory irritation may include coughing and difficulty breathing.

DELAYED OR OTHER HEALTH EFFECTS:

Cancer: May cause cancer in laboratory animals, but the available information is inadequate to determine if this material can cause cancer in humans.

See Section 11 for additional information. Risk depends on duration and level of exposure.

SECTION 4 FIRST AID MEASURES

Eye: No specific first aid measures are required because this material is not expected to cause eye irritation. As a precaution, remove contact lenses, if worn, and flush eyes with water.

Skin: To remove the material from skin, use soap and water. Discard contaminated clothing and shoes or thoroughly clean before reuse.

Ingestion: If swallowed, do not induce vomiting. Give the person a glass of water or milk to drink and get medical attention. Never give anything by mouth to an unconscious person.

Inhalation: Move the exposed person to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention if breathing difficulties continue.

SECTION 5 FIRE FIGHTING MEASURES

The ignition temperature of this material in air is approximately 900C. If ignited, flames may not be visible in the burning powder. Some heat and smoke may be noticeable. Soaking with water may spread the fire due to the burning powder floating on the water. High pressure fire extinguishing equipment may blow the burning powder into other areas resulting in more fires. **RECOMMENDED ACTION:** If possible, isolate the burning powder into an open area (preferably outside), monitor, and allow the fire to burn it out. Gently applying a fine water mist to the area of the fire may be helpful. Stop spraying if water starts to puddle. Eliminating the source of oxygen may also be helpful. **DO NOT** spray with high pressure fire extinguishers.

NFPA RATINGS: Health: 1 Flammability: 1 Reactivity: 0

FLAMMABLE PROPERTIES:

Flashpoint: NDA

Autoignition: 900 °C (1652°F)

Flammability (Explosive) Limits (% by volume in air): Lower: NA Upper: NA

PROTECTION OF FIRE FIGHTERS:

Fire Fighting Instructions: For fires involving this material, do not enter any enclosed or confined fire space without proper protective equipment, including self-contained breathing apparatus. This material will burn although it is not easily ignited.

Combustion Products: Normal combustion forms carbon dioxide and water vapor; incomplete combustion can produce carbon monoxide.

SECTION 6 ACCIDENTAL RELEASE MEASURES

Spill Management: Clean up spills immediately, observing precautions in Exposure Controls/Personal Protection section. Sweep up material and place in a disposable container.

Reporting: This product is neither listed as a hazardous waste nor does it exhibit any of the characteristics that would cause it to be classified or disposed of as a RCRA hazardous waste.

SECTION 7 HANDLING AND STORAGE

READ AND OBSERVE ALL PRECAUTIONS ON PRODUCT LABEL. REFER TO PRODUCT LABEL OR MANUFACTURERS TECHNICAL BULLETINS FOR THE PROPER USE AND HANDLING OF THIS MATERIAL.

Precautionary Measures: Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling.

Static Hazard: Electrostatic charge may accumulate and create a hazardous condition when handling this material. To minimize this hazard, bonding and grounding may be necessary but may not, by themselves, be sufficient. Review all

operations, which have the potential of generating an accumulation of electrostatic charge and/or a flammable atmosphere (including tank and container filling, splash filling, tank cleaning, sampling, gauging, switch loading, filtering, mixing, agitation, and vacuum truck operations) and use appropriate mitigating procedures. For more information, refer to OSHA Standard 29 CFR 1910.106, 'Flammable and Combustible Liquids', National Fire Protection Association (NFPA 77), 'Recommended Practice on Static Electricity', and/or the American Petroleum Institute (API) Recommended Practice 2003, 'Protection Against Ignitions Arising Out of Static, Lightning, and Stray Currents'.

SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

GENERAL CONSIDERATIONS:

Consider the potential hazards of this material (see Section 3), applicable exposure limits, job activities, and other substances in the work place when designing engineering controls and selecting personal protective equipment. If engineering controls or work practices are not adequate to prevent exposure to harmful levels of this material, the personal protective equipment listed below is recommended. The user should read and understand all instructions and limitations supplied with the equipment since protection is usually provided for a limited time or under certain circumstances.

PERSONAL PROTECTIVE EQUIPMENT:

Eye/Face Protection: No special eye protection is normally required. Where splashing is possible, wear safety glasses with side shields as a good safety practice.

Skin Protection: Wear impervious protective clothing to prevent skin contact. Selection of protective clothing may include gloves, apron, boots, and complete facial protection depending on operations conducted. Users should determine acceptable performance characteristics of protective clothing. Consider physical requirements and other substances present when selecting protective clothing. Suggested materials for protective gloves include: No skin protection is ordinarily required under normal conditions of use.

Respiratory Protection: Wear a NIOSH approved respirator that provides protection when working with this material if exposure to harmful levels of airborne material may occur, such as: Air-Purifying Respirator for Dusts and Mists

Occupational Exposure Limits:

Component	Limit	TWA	STEL	Ceiling	Notation
CARBON BLACK	ACGIH_TLV	3.5 mg/m ³	NA	NA	NA
CARBON BLACK	OSHA_PEL	3.5 mg/m ³	NA	NA	NA

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR: Odorless black powder.

pH: 6.5 - 7.5

VAPOR PRESSURE: NA

VAPOR DENSITY (AIR=1): NA

BOILING POINT: 3500 °C (6332°F)

SOLUBILITY: NDA

DENSITY: 1.75 g/cm³

SECTION 10 STABILITY AND REACTIVITY

Chemical Stability: This material is considered stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

Conditions to Avoid: No Data Available

Incompatibility With Other Materials: No data available
Hazardous Decomposition Products: No Data Available
Hazardous Polymerization: Hazardous polymerization will not occur.

SECTION 11 TOXICOLOGICAL INFORMATION

IMMEDIATE HEALTH EFFECTS:

Acute Oral Toxicity: The oral LD50 is undetermined.
Acute Dermal Toxicity: The dermal LD50 is undetermined.
Eye Irritation: This material is not expected to be irritating to the eyes.
Skin Irritation: This material is not expected to be irritating to the skin.
Respiratory Tract Irritation: This material is a mild irritant to the respiratory tract.

ADDITIONAL TOXICOLOGY INFORMATION:

The International Agency for Research on Cancer (IARC) has classified carbon black as a Group 2B carcinogen (possibly carcinogenic to humans) based on sufficient evidence in animals and inadequate evidence in humans. Carbon black has not been listed as a carcinogen by the National Toxicology Program or the Occupational Safety and Health Administration. Acetylene black, a high purity carbon black, is made from the thermal decomposition of acetylene gas. It is a pure form of carbon containing less than 0.2 ppm polycyclic aromatic hydrocarbons (PAHs). Therefore, acetylene black is not expected to directly interact with DNA to present a cancer risk by skin exposure or by inhalation.

SECTION 12 ECOLOGICAL INFORMATION

ECOTOXICITY:

The toxicity of this material to aquatic organisms has not been evaluated. Consequently, this material should be kept out of sewage and drainage systems and all bodies of water.

ENVIRONMENTAL FATE:

This material is not expected to present an environmental problem.

SECTION 13 DISPOSAL CONSIDERATIONS

Use material for its intended purpose or recycle if possible. This material, if it must be discarded, may meet the criteria of a hazardous waste as defined by US EPA under RCRA (40 CFR 261) or other State and local regulations. Measurement of certain physical properties and analysis for regulated components may be necessary to make a correct determination. If this material is classified as a hazardous waste, federal law requires disposal at a licensed hazardous waste disposal facility.

SECTION 14 TRANSPORT INFORMATION

The description shown may not apply to all shipping situations. Consult 49CFR, or appropriate Dangerous Goods Regulations, for additional description requirements (e.g., technical name) and mode-specific or quantity-specific shipping requirements.

US DOT

NOT REGULATED AS A HAZARDOUS MATERIAL OR DANGEROUS GOODS FOR TRANSPORTATION

ICAO / IATA

NOT REGULATED AS A HAZARDOUS MATERIAL OR DANGEROUS GOODS FOR TRANSPORTATION

IMO / IMDG

NOT REGULATED AS A HAZARDOUS MATERIAL OR DANGEROUS GOODS FOR TRANSPORTATION

RID / ADR

NOT REGULATED AS A HAZARDOUS MATERIAL OR DANGEROUS GOODS FOR TRANSPORTATION

SECTION 15 REGULATORY INFORMATION

SARA 311/312 CATEGORIES:	1. Immediate (Acute) Health Effects:	YES
	2. Delayed (Chronic) Health Effects:	YES
	3. Fire Hazard:	NO
	4. Sudden Release of Pressure Hazard:	NO
	5. Reactivity Hazard:	NO

REGULATORY LISTS SEARCHED:

04A = IARC Group 1	12 = TSCA Section 8(a) PAIR	21 = TSCA Section 5(a)
04B = IARC Group 2A	13 = TSCA Section 8(d)	25 = CAA Section 112 HAPs
04C = IARC Group 2B	15 = SARA Section 313	26 = CWA Section 311
05 = NTP Carcinogen	16 = CA Proposition 65	28 = CWA Section 307
06 = OSHA Carcinogen	17 = MA RTK	30 = RCRA Waste P-List
09 = TSCA 12(b)	18 = NJ RTK	31 = RCRA Waste U-List
10 = TSCA Section 4	19 = DOT Marine Pollutant	32 = RCRA Appendix VIII
11 = TSCA Section 8(a) CAIR	20 = PA RTK	33 = MN Hazardous Substance

The following components of this material are found on the regulatory lists indicated.

CARBON BLACK 04C, 16, 17, 18, 20, 33

CHEMICAL INVENTORY LISTINGS:

AUSTRALIA: All the components of this material are listed on the Australian Inventory of Chemical Substances (AICS).

CANADA: All the components of this material are on the Canadian Domestic Substances List (DSL).

PEOPLE'S REPUBLIC OF CHINA: All the components of this product are listed on the draft Inventory of Existing Chemical Substances in China.

EUROPEAN UNION: All the components of this material are in compliance with the EU Seventh Amendment Directive 92/32/EEC.

JAPAN: All the components of this product are on the Existing & New Chemical Substances (ENCS) inventory in Japan, or have an exemption from listing.

KOREA: All the components of this product are on the Existing Chemicals List (ECL) in Korea.

PHILIPPINES: All the components of this product are listed on the Philippine Inventory of Chemicals and Chemical Substances (PICCS).

UNITED STATES: All of the components of this material are on the Toxic Substances Control Act (TSCA) Chemical Inventory.

SECTION 16 OTHER INFORMATION

NFPA RATINGS: Health: 1 Flammability: 1 Reactivity: 0

(0-Least, 1-Slight, 2-Moderate, 3-High, 4-Extreme, PPE:- Personal Protection Equipment Index recommendation, *- Chronic Effect Indicator). These values are obtained using the guidelines or published evaluations prepared by the National Fire Protection Association (NFPA) or the National Paint and Coating Association (for HMIS ratings).

REVISION STATEMENT: This revision updates the transportation information, please review section 14.

ABBREVIATIONS THAT MAY HAVE BEEN USED IN THIS DOCUMENT:

TLV	Threshold Limit Value	TWA	- Time Weighted Average
STEL	Short-term Exposure Limit	PEL	- Permissible Exposure Limit
ACGIH	American Conference of Government Industrial Hygienists	OSHA	- Occupational Safety & Health
NIOSH	National Institute of Safety & Health	NFPA	- National Fire Protection Agency
WHMIS	Workplace Hazardous Materials Information System	IRAC	- Intl. Agency for Research on Cancer
EINECS	European Inventory of existing Commercial Chemical Sales	RCRA	- Resource Conservation Recovery Act
SARA	Superfund Amendments and Reauthorization Act.	TSCA	- Toxic Substance Control Act
EC50	Effective Dose	LC50	- Lethal Concentration
LD50	Lethal Dose	CAS	- Chemical Abstract Service Number
NDA	No Data Available	NA	- Not Applicable
<=	Less Than or Equal To	>=	- Greater Than or Equal To
CNS	Central Nervous System		

The above information is based on the data of which we are aware and is believed to be correct as of the date hereof. Since this information may be applied under conditions beyond our control and with which we may be unfamiliar and since data made available subsequent to the date here of may suggest modifications of the information, we do not assume any responsibility for the results of its use. This information is furnished upon condition that the person receiving it shall make his own determination of the suitability of the material for his particular purpose.