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SAFETY DATA SHEET

Section 1- IDENTIFICATION		
COMPOSITION C		PRODUCT NAME Carbon
SUPPLIER: Plasmaterials, Inc. 2268 Research Drive Livermore, CA 94550 Ph: 925-447-4030	RECOMMENDED USE: Laboratory Chemicals Scientific Research	EMERGENCY TELEPHONE NUMBERS US: 001-800-424-9300 Europe: 001-703-527-3887

Section 2- HAZARD(S) IDENTIFICATION	
Physical Hazards: Self-heating substances and mixtures: Category 2	Health Hazards: Not Classified
Environmental Hazards: Not Classified	OSHA Defined Hazards: Not Classified
LABEL ELEMENTS:	
Hazard Symbol: None	Signal Word: None
HAZARD STATEMENTS	
-Not available	
PRECAUTIONARY STATEMENTS	
-P264: Wash face, hands and any exposed skin thoroughly after handling	
-P270: Do not eat, drink or smoke when using this product	
-P420: Store away from incompatible materials	
-P501: Dispose of contents/container to an approved waste disposal plant	
Hazards not otherwise classified (HNOC):	
-None identified.	

Section 3- COMPOSITION/INFORMATION ON INGREDIENTS		
COMPONENT	CAS-No	Molecular Weight
Carbon	7440-44-0	12.01 g/mol

Section 4- FIRST AID MEASURES
<p>GENERAL ADVICE: Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.</p> <p>Inhalation: Remove victim from exposure to fresh air. Give oxygen if breathing is difficult. If not breathing, give artificial respiration. Consult a physician if symptoms develop or persist.</p> <p>Skin Contact: Wash off with soap and plenty of water. Consult a physician if irritation develops and persists.</p> <p>Eye Contact: Flush eyes with plenty of water, lifting upper and lower lids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops or persists.</p> <p>Ingestion: Rinse mouth with water. Never give anything by mouth to an unconscious person. If ingestion of a large amount does occur, call a poison center immediately.</p> <p>Most Important Symptoms/Effects: The most important known symptoms and effects are described in the labeling (see section 2) and/or in section 11.</p> <p>Indication of any Immediate Medical Attention and Special Treatment Needed: No data</p>

available

Section 5- FIREFIGHTING MEASURES

Suitable Extinguishing Media:

No information available

Unsuitable Extinguishing Media:

No information available

Specific Hazards Arising from the Chemical:

No information available

General Fire Hazards:

No unusual fire or explosion hazards noted

Protective Equipment & Precautions for Firefighters:

As in any fire, Firefighters must wear full face, self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective clothing to prevent contact with skin and eyes.

Specific Methods: Use water spray to cool unopened containers. Use standard firefighting procedures and consider the hazards of other involved materials.

Section 6- ACCIDENTAL RELEASE MEASURES

Personal Precautions: Keep unnecessary personnel away. For personnel protection, see Section 8.

Environmental Precautions: No information available

Methods for Containment & Clean Up: The product is immiscible with water and will spread on the water surface. Dike far ahead of spill for later disposal. Following product recovery, flush area with water. For waste disposal see Section 13.

Section 7- HANDLING AND STORAGE

Handling: Use care in handling and storage. Observe good industrial hygiene practices. Avoid prolonged exposure.

Storage: Store in original tightly closed container. Store away from incompatible materials.

Section 8- EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines:

Occupational Exposure Limits/Components with Workplace Control Parameters:

Component	CAS-No.	Type	Value	Form	Basis
Carbon	7440-44-0	TWA	2.5 mg/m3	Respirable	USA. NIOSH Pocket Guide to Chemical Hazards Materials
		TWA	5 mg/m3	Respirable fraction	USA.OSHA Table Z-3 (29 CFR 1910.1000)
		TWA	15 mg/m3	Total dust	USA.OSHA Table Z-3 (29 CFR 1910.1000)

Biological Limit Values: No biological exposure limits noted for the substance

Control Parameters: Follow standard monitoring procedures.

Personal Protective Equipment:

Eye/Face Protection: Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU).

Skin and Body Protection: Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Wear suitable protective clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory Protection: In case of insufficient ventilation, wear suitable respiratory equipment. Where protection from nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN 143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Thermal Hazards: Wear appropriate thermal protective clothing when necessary.

Hygiene Measures: Handle in accordance with good industrial hygiene and safety practice. Keep away from food and drink. Wash thoroughly after handling and before eating, drinking and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Contaminated work clothing should not be allowed out of the workplace.

Section 9- PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Solid

Odor: No information available

Odor Threshold: No information available

pH: No information available

Melting Point/Range: No data available

Boiling Point/Range: 3,642°C (6,587.6°F)

Flash Point: No information available

Evaporation Rate: No information available

Flammability (solid,gas): No information available

Flammability or Explosive Limits:

Upper: No data available

Lower: No data available

Vapor Pressure: 62128.05 kPa at 25°C (77°F)

Vapor Density: No information available

Relative Density: 6.110 g/cm³ at 25°C (77°F)

Solubility (Water): Insoluble

Partition coefficient; n-octanol/water: No information available

Auto Ignition Temperature: 452°C (845.6°F)

Decomposition Temperature: No information available

Viscosity: No information available

Explosive Properties: No information available

Oxidizing Properties: No information available

Section 10- STABILITY AND REACTIVITY

Reactive Hazard: No information available

Stability: No information available

Conditions to Avoid: Contact with incompatible materials

Incompatible Materials: Chlorine

Hazardous Decomposition Products: No information available

Hazardous Polymerization: No information available

Hazardous Reactions: No information available

Section 11- TOXICOLOGICAL INFORMATION

Information on likely Routes of Exposure:

Inhalation: No information available

Skin Contact: No information available

Eye Contact: No information available

Ingestion: No information available

Information on Toxicological Effects:

Acute Toxicity:

Component	LD50 Oral	Dermal	Inhalation
Carbon	Rat = >10000 mg/kg	No Data Available	No Data Available

Skin Corrosion/Irritation: No information available
Serious eye damage/irritation: No information available
Respiratory or Skin Sensitization: No information available
Carcinogenicity: This product is not considered to be a carcinogen by OSHA.
Germ Cell Mutagenicity: No information available
Reproductive Effects: No information available
Development Effects: No information available
Specific Target Organ Toxicity – single exposure: No information available
Specific Target Organ Toxicity – repeated exposure: No information available
Aspiration Hazard: No information available
Chronic Effects: Prolonged inhalation may be harmful
Additional Information:
-To the best of our knowledge, the chemical, physical and toxicological properties have not been thoroughly investigated.

Section 12- ECOLOGICAL INFORMATION

Toxicity: The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.
Persistence and Degradability: No information available
Bioaccumulation/Accumulation: No information available
Mobility in Soil: No information available
Results of PBT & vPvB assessment: PBT/vPvB assessment not available as chemical safety assessment not required/not conducted.
Other Adverse Effects: No information available.

Section 13- DISPOSAL CONSIDERATIONS

Waste Disposal Methods: Collect and reclaim or dispose in sealed containers to a licensed disposal company. Dispose of contaminated packaging as unused product. Dispose of contents/container in accordance with local/regional/national/international regulations.

Section 14- TRANSPORT INFORMATION

DOT:

UN-No: 1362
Proper Shipping Name: Carbon, activated
Hazard Class: 4.2
Subsidiary Risk: -
Label(s): 4.2
Packing Group: III
Special Provisions: IB8, IP3, T1, TP33
Packaging Exceptions: None
Packaging Non Bulk: 213
Packaging Bulk: 241

Special Precautions for User: Read safety instructions, SDS and emergency procedures before handling

IATA:

UN-No: 1362
Proper Shipping Name: Carbon, activated
Hazard Class: 4.2
Subsidiary Risk: -
Label(s): 4.2
Packing Group: III
Environmental Hazards: No
ERG Code: 4L
Other Information:

- **Passenger and Cargo Aircraft:** Allowed
- **Cargo Aircraft:** Allowed

Special Precautions for User: Read safety instructions, SDS and emergency procedures before handling

IMDG/IMO:**UN-No:** 1362**Proper Shipping Name:** CARBON, ACTIVATED**Hazard Class:** 4.2**Subsidiary Risk:** -**Packing Group:** III**EMS-No:** F-A, S-J**Marine Pollutant:** No**Special Precautions for User:** Read safety instructions, SDS and emergency procedures before handling**Section 15- REGULATORY INFORMATION****US Federal Regulations:****TSCA Section 12(b) Export Notification (40 CFR 707, Subpt.D):** Not regulated**U.S. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050):** Not Listed**SARA 302 Extremely Hazardous Substance:** No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302**SARA 313 (TRI Reporting):** 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**SARA 311/312 Hazardous Chemical:** Yes**SARA Hazard Categories:****Immediate Hazard:** No**Delayed Hazard:** No**Fire Hazard:** Yes**Pressure Hazard:** No**Reactive Hazard:** No**CERCLA Hazardous Substance List (40 CFR 302.4):** Not Listed**Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List:** Not regulated**Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130):** Not regulated**Safe Drinking Water Act (SDWA):** Not regulated**US Massachusetts Right-To-Know (RTK) Substance List:** Not regulated**US New Jersey Right-To-Know (RTK) – Substances: Listed Substance:** Carbon (CAS No.7440-44-0)**US New Jersey Worker and Community Right-To-Know Act:** Not regulated**US Pennsylvania Right-To-Know (RTK) – Hazardous Substances:** Not regulated**US Pennsylvania Worker and Community Right-To-Know Law:** Not regulated**US Rhode Island Right-To-Know (RTK):** Not regulated**US California Controlled Substances CA Department of Justice (CA Health & Safety Code Section 11100):** Not listed**US California Proposition 65:** This product does not contain any chemicals known to the State of California to cause cancer, birth defects or any other reproductive harm.**Section 16- OTHER INFORMATION**

The above information is accurate to the best of our knowledge. However, since data, safety standards and government regulations are subject to change, the conditions of handling and use, or misuse are beyond our control, Plasmaterials, Inc. makes no warranty, either expressed or implied, with respect to the completeness or continuing accuracy of the information contained herein and disclaims all liability for reliance thereon. Users should satisfy themselves that they have all current data relevant to their particular use.

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REVISION: 12-15-15