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# Section 1: Identification of the substance or mixture and the company

# 1.1. Product Identifier

Carbon, >99.9% pure in various manufactured forms. EC #: 231-955-3 CAS #: 7782-42-5 Also referred to as graphite, vitreous carbon or glassy carbon The substances do not require registration according to regulation (EC) N. 1907/2006 (REACH).

## 1.2 Relevant applications of the material and uses advised against

Target material, evaporation material, supports for sample preparation, laboratory

## 1.3. Company details

Rave Scientific 100 Franklin Square Dr. Suite 101 Somerset, NJ 08873 Telephone: 1-732-898-3828 Email: info@ravescientific.com Web: www.ravescientific.com

## **1.4 Emergency telephone number**

Rave Scientific: 1-732-898-3828

# Section 2: Hazards identification

## 2.1. Classification of the substance or mixture according to Regulation EC Nr. 1272/2008

This substance does not meet the criteria for classification in accordance with regulation Nr. 1272/2008/EC

#### 2.2 Labeling elements

# Labelling accordance to Regulation EC. Nr 1272/2008

Not needed

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## 2.3 Other hazards

#### **Results of PBT and vPvB assessment**

According to the results of its assessment, the substance is not a PBT or a vPvB

# Section 3: Composition / information on components

#### 3.1. Substances

Carbon, >99.9% pure in various manufactured forms. EC #: 231-955-3 CAS #: 7782-42-5

#### 3.2 Mixtures

Not applicable

# Section 4: First aid measures

# 4.1. Description of first aid measures

Contact with eyes:	Rinse cautiously with water for several minutes. If possible, remove contact lenses. Continue rinsing.
Contact with skin:	No special measures necessary.
Inhalation:	No special measures necessary. There is no major dust generation possible.
Ingestion:	Rinse mouth. Seek medical assistance if you feel unwell

## 4.2. Important symptoms and effects, either immediate or delayed

Inhalation:	No information available
Ingestion:	No information available
Skin contact:	No information available
Eye contact:	Irritating to eyes
	Symptoms: redness and pain, impaired vision

#### 4.3. Indication of any immediate medical attention and special treatment

General advice: If you feel unwell, seek medical advice; show product label if possible If symptoms persist, always call a doctor

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# Section 5: Firefighting Measures

## 5.1. Extinguishing media

Water, foam, dry extinguishing powder, ABC powder. Do not use water jet.

#### 5.2 Special hazards arising from the substance or mixture

None. In case of fire may be liberated: carbon monoxide (CO), carbon dioxide (CO2)

## **5.3 Advice to firefighters**

Fight fire from a safe distance, with adequate cover. Do not move the load if exposed to heat. In case of fire: do not breathe fumes. Wear self-contained breathing apparatus for fire fighting

# Section 6: Accidental release measures

## 6.1. Personal precautions, protective equipment and emergency procedures

No special measures are necessary.

#### 6.2 Environmental precautions

Do not allow to enter public sewers and waterways

## 6.3 Methods and material for containment and clean up

Pick up mechanically

## 6.4 Reference to other sections

For further information see section 7, 8 and 13.

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# Section 7: Handling and storage

# 7.1. Precautions for safe handling

No special measures are necessary.

# 7.2 Conditions for safe storage, including any incompatibilities

Store in a cool dry place

## 7.3 Specific end uses(s)

Not required

# Section 8: Exposure control and personal protection

## 8.1. Control parameters

# **Occupational exposure limits (OEL)**

Ingredient	Material Name	Source	TWA	STEL	Ceiling -C	Notes
Dust (Non spec)	dust	EU	4 mg/m <sup>3</sup>		Not available	

# 8.2 Exposure controls

Control procedures:	Avoid creating or accumulating dust or fine particles Wash hands before breaks and at the end of the work Maintain appropriate working environment
Personal protection:	Protective work clothing
Inhalation:	Usually no personal respiratory protection necessary
Hands and skin:	Hand protection is not required
Eyes:	Wear safety goggles with side protection or full-face protection

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# Section 9: Physical and chemical properties

## 9.1. Information on basic physical and chemical properties

Appearance/physical state: Colour:	Solid in various forms / powder Black
Odour:	None
pH	Not applicable
Melting point/range:	>3500°C
Boiling point/range:	4827°C
Flammability:	Material is combustible, but will not ignite readily
Flash point:	Not determined
Evaporation rate:	Not available
Explosion limits: upper limit:	Not determined
lower limit:	Not determined
Vapour pressure:	Not applicable
Relative density:	2 g/cm3 @ 20°C
Solubility in water:	Practically insoluble in water
Auto-ignition:	Not determined
Viscosity:	Not applicable

# 9.2 Other information

None

# Section 10: Stability and reactivity

# 10.1. Reactivity

This material is not reactive under normal ambient conditions.

## **10.2** Chemical stability

Stable under recommended storage conditions

# 10.3 Possibility of hazardous reactions

Violent reactions with strong oxidisers, peroxides

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#### 10.4 Conditions to avoid

Avoid creating dust or accumulating dust or fine particles

#### **10.5 Incompatible materials**

Strong oxidisers, peroxides

#### **10.6 Hazardous decomposition products**

CO, CO2

# Section 11: Toxicological information

## 11.1. Information on toxicological effects

#### Information hazard classes as defined in Regulation (EC) Nr. 1272/2008

Inhalation:	Not classified	
Skin contact:	Not classified	
Eye contact:	Not classified	
Sensitisation:	Not classified	
Germ cell mutagenicit	y: Not classified	
Carcinogenicity:	Not classified	
Reproductive toxicity:	Not classified	
Specific target organ to	Not classified	
Specific target organ to	Not classified	

#### **Toxicological data:**

Ingredient	Toxicity	Irritation
Carbon / graphite	Oral (rat) LD50: >2000 mg/kg	Not classified

#### Symptoms related to the physical, chemical and toxicological characteristics

If swallowed:	Data are not available
If in eyes:	Dust can cause eye irritation
If inhaled:	Inhalation of dust may cause irritation of the respiratory system
If on skin:	Frequently of prolonged contact with skin may cause dermal irritation
Other information:	Health effects are not known

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## **11.2.** Endocrine disrupting properties

Not listed

#### 11.3. Information on other hazards

There is no additional information

# Section 12: Ecological information

#### 12.1. Aquatic toxicity

Shall not be classified as hazardous to the aquatic environment.

#### 12.2 Persistence and degradability

No data available

## 12.3 Bio-accumulative potential

No data available

# 12.4 Mobility in soil

No data available

# 12.5 Results of PBT and vPvB assessment

No data available

#### **12.6 Endocrine disrupting properties**

Not listed

#### **12.7 Hazardous decomposition products**

No information available

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# Section 13: Disposal considerations

# 13.1. Waste treatment methods

Product:	This material and its container must be disposed of in a safe way.
	Do not discharge into drains or the environment, dispose to an authorised waste
	collection point.
National regulations:	Disposal should be in accordance with local, state or national legislation.

# Section 14: Transport information

# 14.1. UN number

UN-number:	N/A	
14.2 UN proper shipping name		
Proper shipping name:	N/A	
14.3 Transport hazard class(es)		
Class: ADR/RID-Classification code:	N/A N/A	
14.4 Packing group		
Packing:	N/A	
14.5 Incompatible materials		
ADR/RID- Environmentally hazardous: IMDG-Marine pollutant: IATA/ICAO-Environmentally hazardous:	N/A	
14.6 Special precautions for user		
ADR/RID-Tunnel code:	N/A	(Contd. on page 9)



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IMDG-Ems:N/AIATA/ICAO-PAX:N/AIATA/ICAO-CAO:N/A

# 14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC code

Not applicable

# Section 15: Regulatory information

# 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

**Restrictions according to REACH, Annex XVII:** Not listed **List of substance subject to authorization (REACH, Annex XIV)/SVHC – candidate list:** Not listed

#### 15.2 Chemical safety assessment

No information available

# Section 16: Other information

## **RoHS Directive Compliant**

This product is fully compliant with the directive 2100/65/EU Annex II (RoHS). It does not contain any lead, cadmium, mercury, hexavalent chromium, PBB's or PBDE's.

#### WEEE

This product is not a piece of electrical or electronic equipment, and it therefore not governed by Directive 2002/96/EC on waste electrical and electronic equipment (WEEE)

#### Abbreviations:

Asp. Tox	Aspiration hazard	
Carc.	Carcinogenicity	
Exp.	Exposure	
Flam.	Flammable	
GHS	Global Harmonised System of Classification of Labelling	g Chemicals
Irrit.	Irritant	
N/A	Not applicable	
N/E	Not estimated	(Contd. on page 10)



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NOEC	No observed effect concentration
LC50	Lethal dose single exposure to causing 50% lethality
LD50	Lethal dose 50% corresponds to causing 50% lethality during a specific time
PBT	Persistent Bio-accumulative and Toxic
WEL	Workplace Exposure Limit
Repr.	Reproductive toxicant
RoHS	Restriction of Hazardous Substance
vPvB	very Persistent and very Bio-accumulative
WEEE	Waste Electrical and Electronic Equipment

This product should be stored, handled and used in accordance with good industrial hygiene practices and in accordance with any legal regulation.

The information contained herewith is based on the present state of our knowledge and is intended to describe the product from the point of view of safety requirements. It does not guarantee any specific properties.

It is the responsibility of the user to query and verify any information seeming suspect or where doubt on the validity may exist. The buyer assumes all responsibility of using and handling the product in accordance with local, state, federal and international regulations.

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