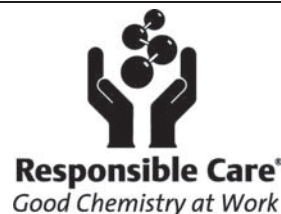


1. Product and company identification

Product name : **Carbon A**
Material uses : Water purification. Multi-gas/vapor filter
Reseller : Summit Research Tech
5346 Scotts Valley Dr.
Scotts Valley, CA
USA 65066

Tel: +1 831 226 2948

www.summit-research.tech



2. Hazards identification

Physical state : Solid. (Powder.)
Odor : Odorless.
Color : Black. (Dark.)
OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
Emergency overview : Caution!
Fine dust clouds may form explosive mixtures with air.
MAY CAUSE DAMAGE TO THE FOLLOWING ORGANS: RESPIRATORY TRACT, SKIN, EYES.
Routes of entry : Dermal contact. Eye contact. Inhalation. Ingestion.
Potential acute health effects
Eyes : No known significant effects or critical hazards.
Skin : No known significant effects or critical hazards.
Inhalation : No known significant effects or critical hazards.
Ingestion : Practically non-toxic if swallowed.
Potential chronic health effects
Carcinogenic effects : No known significant effects or critical hazards.
Mutagenic effects : No known significant effects or critical hazards.
Teratogenic effects : No known significant effects or critical hazards.
Target organ effects : May cause damage to the following organs: upper respiratory tract, skin, eyes.
Medical conditions aggravated by over-exposure : Repeated or prolonged exposure to the substance can produce target organs damage.
Over-exposure signs/symptoms : Repeated or prolonged exposure to the substance can produce target organs damage.
See toxicological information (section 11)

3 . Composition/information on ingredients

<u>Ingredient name</u>	<u>CAS number</u>	<u>% by weight</u>
Carbon	7440-44-0	100

4 . First aid measures

Eye contact	: Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
Skin contact	: Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if irritation occurs. Wash clothing before reuse.
Inhalation	: Get medical attention if irritation occurs. Move exposed person to fresh air. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
Ingestion	: Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if irritation occurs. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
Protection of first-aiders	: No action shall be taken involving any personal risk or without suitable training.

5 . Fire fighting measures

Products of combustion : Emits acrid smoke and irritating fumes when heated to decomposition. These products are carbon oxides (CO, CO₂).

Extinguishing media

Suitable	: Use an extinguishing agent suitable for the surrounding fire.
Not suitable	: None known.
Special exposure hazards	: None.
Explosive properties	: No specific hazard.
Special protective equipment for fire-fighters	: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
Special remarks on fire hazards	: None.
Special remarks on explosion hazards	: Explosibility: Class St1 (Kst = 105 bar m/s) Fine dust clouds may form explosive mixtures with air.

6 . Accidental release measures

Personal precautions	: Immediately contact emergency personnel. Keep unnecessary personnel away. Use suitable protective equipment.
Environmental precautions	: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.
Methods for cleaning up	: If emergency personnel are unavailable, vacuum or carefully scoop up spilled material and place in an appropriate container for disposal by incineration. Avoid creating dusty conditions and prevent wind dispersal.

7 . Handling and storage

- Handling** : Wash thoroughly after handling.
Storage : Keep container tightly closed. Keep container in a cool, well-ventilated area.

8 . Exposure controls/personal protection

Particulates (Not otherwise regulated)

OSHA PEL

- TWA: 15 mg/m³ (Total particulates)
TWA: 5 mg/m³ (Respirable Particulate)

ACGIH TLV

- TWA: 10 mg/m³ (Inhalable particulates not otherwise specified)
TWA: 3 mg/m³ (Respirable particulates not otherwise specified)

- Engineering measures** : No special ventilation requirements. Good general ventilation should be sufficient to control airborne levels. If this product contains ingredients with exposure limits, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure below any recommended or statutory limits.

Personal protection

- Eye/face** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts.
Recommended: safety glasses with side-shields ; Possible: splash goggles , face shield
- Skin** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.
>8 hour/hours (breakthrough time): disposable vinyl
Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Body: Recommended: disposable overall
- Respiratory** : Use a properly fitted, particulate filter respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.
Recommended: If dust is generated and ventilation is inadequate, use respirator that will protect against dust/mist.
- Other protection** : Keep away from heat and ignition sources. Store in a cool, well-ventilated place.
- Hygiene measures** : Wash hands, forearms and face thoroughly after handling. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

9 . Physical and chemical properties

General information

- Physical state** : Solid. (Powder.)
Color : Black. (Dark.)
Odor : Odorless.

Important health, safety and environmental information

- Density** : 0.32 g/cm³ (2.656 lb(s)/gal)
Specific gravity : The only known value is 1.5 (Water = 1) (Carbon).

Other information

- Decomposition temperature** : Not available.
Auto-ignition temperature : 420 to 450°C (788 to 842°F)

10 . Stability and reactivity

- Stability** : The product is stable.
- Incompatibility with various substances** : Reactive or incompatible with the following materials: oxidizing materials.
- Hazardous polymerization** : Will not occur.
- Conditions of reactivity** : Flammable in the presence of the following materials or conditions: open flames, sparks and static discharge and heat.
Explosibility: Class St1 (Kst = 105 bar m/s)
Fine dust clouds may form explosive mixtures with air.

11 . Toxicological information

Toxicity data

<u>Product/ingredient name</u>	<u>Test</u>	<u>Result</u>	<u>Route</u>	<u>Species</u>
Carbon	LD50	>5000 mg/kg	Oral	Rat

- Target organ effects** : May cause damage to the following organs: upper respiratory tract, skin, eyes.

Specific effects

- Carcinogenic effects** : No known significant effects or critical hazards.
- Mutagenic effects** : No known significant effects or critical hazards.
- Teratogenicity / Reproductive toxicity** : No known significant effects or critical hazards.

Irritant/Sensitizer

- Ingestion** : No known significant effects or critical hazards.
- Inhalation** : No known significant effects or critical hazards.
- Eyes** : No known significant effects or critical hazards.
- Skin** : No known significant effects or critical hazards.

12 . Ecological information

- Environmental precautions** : No known significant effects or critical hazards.
- Products of degradation** : Most inorganic compounds are not biodegradable.
- Toxicity of the products of biodegradation** : The product itself and its products of degradation are not toxic.

13 . Disposal considerations

- Waste disposal** : The generation of waste should be avoided or minimized wherever possible. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.

Disposal should be in accordance with applicable regional, national and local laws and regulations. Local regulations may be more stringent than regional or national requirements.

The information presented below only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees.

14 . Transport information

Regulatory information	UN number	Proper shipping name	Class	PG*	Label	Additional information
DOT Classification (Bulk)	Not regulated.	-		-		Remarks Carbon is not considered spontaneously combustible under the "Self-Heating Test for Carbon" protocol listed in the United Nations Manual of Tests and Criteria [33.3.1]. As such, Class 4.2 provisions for U.S. DOT, IATA, ICAO, ADR and IMDG shipments do not apply.
IATA-DGR Class	Not regulated.	-		-		-
IMDG Class	Not regulated.	-		-		-

PG* : Packing group

15 . Regulatory information

- HCS Classification** : Target organ effects
- U.S. Federal regulations** : TSCA: No products were found.
 SARA 302/304/311/312 extremely hazardous substances: Not applicable.
 SARA 302/304 emergency planning and notification: Not applicable.
 SARA 302/304/311/312 hazardous chemicals: Not applicable.
 SARA 311/312:
Carbon Immediate (acute) health hazard
- State regulations** : No products were found.
- California Prop. 65** : The required chemical analyses and risk assessments were performed on this product. Results indicate that there are no significant risks (or observable effects), as defined by this statute, associated with this product under conditions of normal use.
- Canada**
 Not controlled under WHMIS (Canada).
 Canadian NPRI: No products were found.
- International regulations**
- International lists** : United States: This product and/or its components are TSCA Listed.
 Canada: This product and/or its components is DSL Listed or acceptable under CEPA registration regulations.
 Europe: This product is EINECS listed.
 Australia: This product is AICS listed.
 Japan: This product contains ENCS and MITI listed components.
 China: This product is listed on the Chinese IECSC.

15 . Regulatory information

South Korea: This product is ECL Listed.

Philippines: This product is PICCS Listed.

Switzerland: Acceptable.

16 . Other information

HMIS :	Health 1 *	NFPA :	Health 1
	Fire hazard 1		Flammability 1
	Reactivity 0		Instability 0
	Personal protection C		Special

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