



### 1. Product and company identification

<b>Product name</b>	: NUCCHAR® SA
<b>Synonym</b>	: Activated carbon
<b>Material uses</b>	: Water purification. multi-gas/vapor filter
<b>Manufacturer</b>	: MeadWestvaco Corporation Specialty Chemicals Division Washington Street Covington, VA 24426 or MeadWestvaco Corporation Specialty Chemicals Division 2025 Beech Grove Road Wickliffe, KY 42087 msds@mww.com
	Telephone no.: +1 540 969 3700, +1 800 336 2211 Hours of operation: 0800 - 1700 EST
<b>In case of emergency</b>	: +1 800 424 9300 (USA) CHEMTREC



### 2. Hazards identification

#### Emergency overview

<b>Physical state</b>	: Solid. [Powder.]
<b>Color</b>	: Black. [Dark]
<b>Odor</b>	: Odorless.
<b>Signal word</b>	: DANGER!
<b>Hazard statements</b>	: MAY FORM EXPLOSIVE DUST-AIR MIXTURES. MAY CAUSE TARGET ORGAN DAMAGE, BASED ON ANIMAL DATA. WARNING! MAY FORM COMBUSTIBLE DUST CONCENTRATIONS IN AIR (DURING PROCESSING)
<b>Precautionary measures</b>	: Do not breathe dust. Do not eat, drink or smoke when using this product. Keep away from heat, sparks and flame. Keep container closed. Prevent dust accumulation. Wash thoroughly after handling.
<b>OSHA/HCS status</b>	: This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
<b>Routes of entry</b>	: Dermal contact. Eye contact. Inhalation. Ingestion.

#### Potential acute health effects

<b>Inhalation</b>	: Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the nose, throat and lungs.
<b>Ingestion</b>	: No known significant effects or critical hazards.
<b>Skin</b>	: No known significant effects or critical hazards.
<b>Eyes</b>	: Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the eyes.

#### Potential chronic health effects

<b>Chronic effects</b>	: May cause target organ damage, based on animal data. Repeated or prolonged inhalation of dust may lead to chronic respiratory irritation.
<b>Carcinogenicity</b>	: No known significant effects or critical hazards.
<b>Mutagenicity</b>	: No known significant effects or critical hazards.
<b>Teratogenicity</b>	: No known significant effects or critical hazards.

## 2. Hazards identification

- Developmental effects** : No known significant effects or critical hazards.
- Fertility effects** : No known significant effects or critical hazards.
- Target organs** : May cause damage to the following organs: cardiovascular system, upper respiratory tract, skin, eyes.  
Contains material which may cause damage to the following organs: eye, lens or cornea.
- Over-exposure signs/symptoms**
  - Inhalation** : Adverse symptoms may include the following:  
respiratory tract irritation  
coughing
  - Ingestion** : No specific data.
  - Skin** : No specific data.
  - Eyes** : Adverse symptoms may include the following:  
irritation  
redness
- Medical conditions aggravated by over-exposure** : Pre-existing disorders involving any target organs mentioned in this MSDS as being at risk may be aggravated by over-exposure to this product.

See toxicological information (Section 11)

## 3. Composition/information on ingredients

Name	CAS number	%
Carbon	7440-44-0	100

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

## 4. First aid measures

- Eye contact** : Check for and remove any contact lenses. Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical attention immediately.
- Skin contact** : In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention immediately.
- Inhalation** : 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. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention immediately.
- Ingestion** : Wash out mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention immediately.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.
- Notes to physician** : No specific treatment. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

## 5. Fire-fighting measures

- Flammability of the product** : Fine dust clouds may form explosive mixtures with air. Explosion: Avoid generating dust; fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard.
- Extinguishing media**
- Suitable** : Use dry chemical powder.
- Not suitable** : Do not use water jet.
- Special exposure hazards** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.
- Hazardous thermal decomposition products** : Decomposition products may include the following materials:  
carbon dioxide  
carbon monoxide
- 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** : Non-flammable.
- 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** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing dust. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see Section 8).
- Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
- Methods for cleaning up**
- Small spill** : Move containers from spill area. Vacuum or sweep up material and place in a designated, labeled waste container. Use spark-proof tools and explosion-proof equipment. Dispose of waste according to applicable legislation. Dust deposits should not be allowed to accumulate on surfaces, as these may form an explosive mixture if they are released into the atmosphere in sufficient concentration. Avoid dispersal of dust in the air, e.g., clearing dusty surfaces with compressed air. Nonsparking tools should be used.
- Large spill** : Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Vacuum or sweep up material and place in a designated, labeled waste container. Avoid creating dusty conditions and prevent wind dispersal. Use spark-proof tools and explosion-proof equipment. Dispose of via a licensed waste disposal contractor. Note: see section 1 for emergency contact information and section 13 for waste disposal. Dust deposits should not be allowed to accumulate on surfaces, as these may form an explosive mixture if they are released into the atmosphere in sufficient concentration. Avoid dispersal of dust in the air, e.g., clearing dusty surfaces with compressed air. Nonsparking tools should be used.

## 7. Handling and storage

### Handling

- : Put on appropriate personal protective equipment (see Section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing dust. Avoid the creation of dust when handling and avoid all possible sources of ignition (spark or flame). Prevent dust accumulation. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Electrical equipment and lighting should be protected to appropriate standards to prevent dust coming into contact with hot surfaces, sparks or other ignition sources. Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material. Empty containers retain product residue and can be hazardous.

### Storage

- : Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see section 10) and food and drink. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. Minimize dust generation and accumulation. Routine housekeeping should be institute to ensure that dusts do not accumulate on surfaces. Dry powders can build static electricity charges when subjected to the friction of transfer and mixing operations. Provide adequate precautions, such as electrical grounding and bonding, or inert atmospheres.

## 8. Exposure controls/personal protection

Ingredient	Exposure limits
Carbon	<p><b>ACGIH TLV (United States).</b> TWA: 10 mg/m<sup>3</sup> 8 hour(s). Form: Particulates not otherwise defined.</p> <p><b>OSHA PEL (United States).</b> TWA: 5 mg/m<sup>3</sup> 8 hour(s). Form: Particulates not otherwise defined. TWA: 15 mg/m<sup>3</sup> 8 hour(s). Form: Total dust</p>

### Recommended monitoring procedures

- : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment.

### Engineering measures

- : Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment. It is recommended that all dust control equipment such as local exhaust ventilation and material transport systems involved in handling of this product contain explosion relief vents or an explosion suppress system or an oxygen-deficient environment. Ensure that dust-handling systems (such as exhaust ducts, dust collectors, vessels, and processing equipment) are designed in a manner to prevent the escape of dust into the work area, i.e., there is no leakage from the equipment. Use only appropriately classified electrical equipment and powered industrial trucks.

## 8. Exposure controls/personal protection

- Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. 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.
- Personal protection**
- Respiratory** : Use a properly fitted, air-purifying or air-fed 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.
- Hands** : 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 hours (breakthrough time): disposable vinyl
- Eyes** : 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 or dusts. If operating conditions cause high dust concentrations to be produced, use dust goggles. Recommended: safety glasses with side-shields  
Possible: splash goggles , face shield
- Skin** : 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.  
Recommended: disposable overall
- Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.
- Other protection** : Keep away from heat and ignition sources. Store in a cool, well-ventilated place.

## 9. Physical and chemical properties

- Physical state** : Solid. [Powder.]
- Auto-ignition temperature** : 275°C (527°F)
- Color** : Black. [Dark]
- Odor** : Odorless.
- Taste** : Tasteless.
- Relative density** : 2 [20°C]

## 10. Stability and reactivity

- Chemical stability** : The product is stable.
- Conditions to avoid** : Avoid the creation of dust when handling and avoid all possible sources of ignition (spark or flame). Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material. Prevent dust accumulation.
- Incompatible materials** : Reactive or incompatible with the following materials: oxidizing materials.
- Hazardous decomposition products** : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## 10. Stability and reactivity

**Possibility of hazardous reactions** : Under normal conditions of storage and use, hazardous reactions will not occur.

## 11. Toxicological information

### Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Carbon	LC50 Inhalation Dusts and mists	Rat	8500 mg/m <sup>3</sup>	1 hours
	LD50 Oral	Rat	>5000 mg/kg	-
	LD50 Oral	Rat	>2000 mg/kg	-

### Chronic toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Not available.				

### Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Not available.					

**Conclusion/Summary** : Not available.

### Sensitizer

Product/ingredient name	Route of exposure	Species	Result
Carbon	skin	Mouse	Not sensitizing

**Conclusion/Summary** : Not available.

### Carcinogenicity

Product/ingredient name	Result	Species	Dose	Exposure
Not available.				

### Mutagenicity

Product/ingredient name	Test	Experiment	Result
Carbon	OECD 471 Bacterial Reverse Mutation Test	Experiment: In vitro Subject: Bacteria	Negative
	OECD 476 <i>In vitro</i> Mammalian Cell Gene Mutation Test	Experiment: In vitro Subject: Mammalian-Animal	Negative
	OECD 473 <i>In vitro</i> Mammalian Chromosomal Aberration Test	Experiment: In vitro Subject: Mammalian-Human	Negative

### Teratogenicity

Product/ingredient name	Result	Species	Dose	Exposure
Not available.				

### Reproductive toxicity

## 11. Toxicological information

Product/ingredient name	Maternal toxicity	Fertility	Development toxin	Species	Dose	Exposure
Not available.						

## 12. Ecological information

**Ecotoxicity** : No known significant effects or critical hazards.

Aquatic ecotoxicity

Product/ingredient name	Result	Species	Exposure
Not available.			

Persistence/degradability

Product/ingredient name	Test	Result	Dose	Inoculum
Not available.				

## 13. Disposal considerations

**Waste disposal** : The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe way. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. 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. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

**RCRA classification** : Non-hazardous Waste

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	Classes	PG*	Label	Additional information
<b>DOT Classification</b>	Not regulated.	-	-	-		<b>Remarks</b> Nuchar Activated Carbon is not considered spontaneously combustible under the "Self-Heating Test for Carbon" protocol listed in the United Nations

## 14. Transport information

						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.
<b>IMDG Class</b>	Not regulated.	-	-	-		-
<b>IATA-DGR Class</b>	Not regulated.	-	-	-		-

PG\* : Packing group

## 15. Regulatory information

- HCS Classification** : Target organ effects
- U.S. Federal regulations** : **TSCA 8(a) IUR**: All components are listed or exempted.  
**United States inventory (TSCA 8b)**: All components are listed or exempted.  
**SARA 302/304/311/312 extremely hazardous substances**: No products were found.  
**SARA 302/304 emergency planning and notification**: No products were found.  
**SARA 302/304/311/312 hazardous chemicals**: Carbon  
**SARA 311/312 MSDS distribution - chemical inventory - hazard identification**:  
Carbon: Fire hazard, Immediate (acute) health hazard, Delayed (chronic) health hazard

### State regulations

- Massachusetts** : None of the components are listed.
- New York** : None of the components are listed.
- New Jersey** : None of the components are listed.
- Pennsylvania** : None of the components are listed.

### 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.

### International regulations

- International lists** : **Australia inventory (AICS)**: All components are listed or exempted.  
**China inventory (IECSC)**: All components are listed or exempted.  
**Japan inventory**: All components are listed or exempted.  
**Korea inventory**: All components are listed or exempted.  
**New Zealand Inventory of Chemicals (NZIoC)**: All components are listed or exempted.  
**Philippines inventory (PICCS)**: All components are listed or exempted.
- Canada inventory** : All components are listed or exempted.
- Europe inventory** : All components are listed or exempted.

## 15. Regulatory information

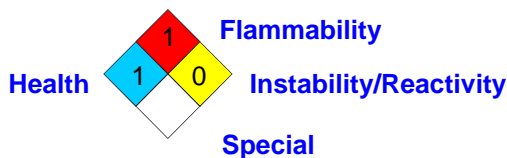
- Chemical Weapons Convention List Schedule I Chemicals : Not listed
- Chemical Weapons Convention List Schedule II Chemicals : Not listed
- Chemical Weapons Convention List Schedule III Chemicals : Not listed

## 16. Other information

**Label requirements** : MAY FORM EXPLOSIVE DUST-AIR MIXTURES. MAY CAUSE TARGET ORGAN DAMAGE, BASED ON ANIMAL DATA.

**Hazardous Material Information System (U.S.A.)** : **National Fire Protection Association (U.S.A.)** :

Health	*	0
Flammability		1
Physical hazards		0



**References** : Refer to NFPA 654, Standard for the Prevention of Fire and Dust Explosions for the Manufacturing, Processing, and Handling of Combustible Particulate Solids, for safe handling.

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**Date of previous issue** : No previous validation.

**Version** : 1

**Prepared by** : MeadWestvaco Corporation - Product Stewardship Group

Indicates information that has changed from previously issued version.

**Notice to reader**

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