



NUCON International, Inc  
7000 Huntley Road  
Columbus, OH 43229

# SAFETY DATA SHEET

According to Federal Register / Vol. 77, No. 58 /  
Monday, March 26, 2012 / Rules and Regulations

## NUSORB® KITEG™ (Impregnated Activated Carbon)

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1. Product identifier

Product name: NUSORB KITEG (Impregnated steam-activated coconut shell carbon for Radioiodine removal)

#### 1.2. Relevant identified uses of the substance or mixture and uses advised against

#### 1.3. Details of the supplier of the safety data sheet

Nucon International, Inc.  
7000 Huntley Rd  
Columbus, Ohio 43229  
T (614) 846-5710 - F (614) 431-0858  
[sales@nucon-int.com](mailto:sales@nucon-int.com) - <http://www.nucon-int.com/>

#### 1.4. Emergency telephone number

Emergency number : + 800-992-5192 extension 124

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

##### GHS-US classification

Not classified

#### 2.2. Label elements

##### GHS-US labeling

No labeling applicable

#### 2.3. Other hazards

Other hazards not contributing to the classification : None under normal conditions. May form combustible dust concentrations in air.

#### 2.4. Unknown acute toxicity (GHS US)

Not applicable

### SECTION 3: Composition/Information on ingredients

#### 3.1. Substance

Not applicable

#### 3.2. Mixture

Name	Product identifier	%	GHS-US classification
Steam-Activated Carbon	(CAS No) 7440-44-0	95 - 97	Not classified
Potassium iodide (KI)	(CAS No) 7681-11-0	1.5 - 2.5	Skin Sens. 1B, H317 Repr. 2, H361 STOT RE 1, H372
Triethylenediamine	(CAS No) 280-57-9	1.5 - 2.5	Acute Tox. 4 (Oral), H302

Full text of H-phrases: see section 16

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

- First-aid measures general : Call a POISON CENTER or doctor/physician.
- First-aid measures after inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.
- First-aid measures after skin contact : If skin irritation persists, call a physician. If on skin, rinse well with water. If on clothes, remove clothes. Wash contaminated clothing before reuse.
- First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
- First-aid measures after ingestion : Rinse mouth. Do not induce vomiting. Call a physician immediately.



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### 4.2. Most important symptoms and effects, both acute and delayed

- Symptoms/injuries after inhalation : May cause irritation to the respiratory tract, sneezing, coughing, burning sensation of throat with constricting sensation of the larynx and difficulty in breathing.
- Symptoms/injuries after skin contact : Slight irritation.
- Symptoms/injuries after eye contact : Causes serious eye irritation.

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

No additional information available

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

- Suitable extinguishing media : Dry powder. Water spray. Foam.

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

- Explosion hazard : Avoid raising powdered materials into airborne dust, creating an explosion hazard.

### 5.3. Advice for firefighters

- Firefighting instructions : Evacuate area. Eliminate all ignition sources if safe to do so. Exercise caution when fighting any chemical fire.
- Protection during firefighting : Do not attempt to take action without suitable protective equipment.

## SECTION 6: Accidental release measures

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

- General measures : May form combustible dust concentrations in air.

#### 6.1.1. For non-emergency personnel

No additional information available

#### 6.1.2. For emergency responders

- Protective equipment : Avoid breathing dust.
- Emergency procedures : Stop release.

### 6.2. Environmental precautions

Avoid release to the environment.

### 6.3. Methods and material for containment and cleaning up

- Methods for cleaning up : On land, sweep or shovel into suitable containers. Flush spill area with water spray.

### 6.4. Reference to other sections

No additional information available

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

- Additional hazards when processed : Avoid dust formation. Do not breathe dust.
- Precautions for safe handling : No open flames. No smoking. Use only outdoors or in a well-ventilated area. Do not get in eyes, on skin, or on clothing. Do not breathe dust. Avoid contact during pregnancy/while nursing. Use personal protective equipment as required. Avoid dust formation. Eliminate all ignition sources if safe to do so. Use only non-sparking tools.
- Hygiene measures : Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling. Wash contaminated clothing before reuse. Contaminated work clothing should not be allowed out of the workplace.



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### 7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Comply with applicable regulations.  
Storage conditions : Keep only in the original container in a cool, well ventilated place away from: moisture.  
Incompatible products : Oxidizing agent.  
Storage area : Store in a well-ventilated place.  
Special rules on packaging : Store in a closed container.

### 7.3. Specific end use(s)

No additional information available

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

<b>NUSORB KITEG (Impregnated coconut carbon for Radioiodine removal) (7440-44-0)</b>	
ACGIH	Not applicable
OSHA	Not applicable
<b>Carbon (7440-44-0)</b>	
ACGIH	Not applicable
OSHA	Not applicable
<b>Potassium iodide (KI) (7681-11-0)</b>	
ACGIH	Not applicable
OSHA	Not applicable
<b>Triethylenediamine (280-57-9)</b>	
ACGIH	Not applicable
OSHA	Not applicable

### 8.2. Exposure controls

Personal protective equipment : Wash hands thoroughly after handling.  
Eye protection : Chemical goggles or face shield.  
Skin and body protection : Wear suitable protective clothing.  
Respiratory protection : In case of inadequate ventilation wear respiratory protection. Where exposure through inhalation may occur from use, respiratory protection equipment is recommended.  
Consumer exposure controls : Avoid contact during pregnancy/while nursing.  
Other information : Do not breathe dust. Do not eat, drink or smoke when using this product.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state : Solid  
Appearance : granular. Pellets/tablets.  
Color : Black dark gray  
Odor : odorless  
Odor threshold : No data available  
pH : No data available  
Relative evaporation rate (butyl acetate=1) : No data available  
Melting point : 3550 °C  
Freezing point : No data available



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Boiling point : No data available  
Flash point : No data available  
Auto-ignition temperature : 450 °C  
Decomposition temperature : No data available  
Flammability (solid, gas) : No data available  
Vapor pressure : No data available  
Relative vapor density at 20 °C : No data available  
Relative density : No data available  
Specific gravity / density : 400 - 600 g/l  
Solubility : insoluble in water.  
Log Pow : No data available  
Log Kow : No data available  
Viscosity, kinematic : No data available  
Viscosity, dynamic : No data available  
Explosive properties : No data available.  
Oxidizing properties : No data available.  
Explosion limits : No data available

### 9.2. Other information

VOC content : < 1 % by volume

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

No additional information available

### 10.2. Chemical stability

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

No additional information available

### 10.4. Conditions to avoid

Moisture. Avoid dust formation.

### 10.5. Incompatible materials

Strong oxidizers. Fluorine. Halogens. Peroxides. Oxygen.

### 10.6. Hazardous decomposition products

Carbon monoxide. Carbon dioxide. Nitrogen oxides. Potassium oxides.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity : Not classified

Carbon (7440-44-0)	
LD50 oral rat	> 10000 mg/kg
Triethylenediamine (280-57-9)	
LD50 oral rat	1700 mg/kg
LD50 dermal rabbit	3200 mg/kg
ATE US (oral)	1700.000 mg/kg body weight
ATE US (dermal)	3200.000 mg/kg body weight

Skin corrosion/irritation : Not classified



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Serious eye damage/irritation : Not classified  
Respiratory or skin sensitization : Not classified  
Germ cell mutagenicity : Not classified  
Carcinogenicity : Not classified  
Reproductive toxicity : Not classified  
Specific target organ toxicity (single exposure) : Not classified  
Specific target organ toxicity (repeated exposure) : Not classified  
Aspiration hazard : Not classified  
Potential Adverse human health effects and symptoms : Harmful if swallowed. Harmful if inhaled.  
Symptoms/injuries after inhalation : May cause irritation to the respiratory tract, sneezing, coughing, burning sensation of throat with constricting sensation of the larynx and difficulty in breathing.  
Symptoms/injuries after skin contact : Slight irritation.  
Symptoms/injuries after eye contact : Causes serious eye irritation.

### SECTION 12: Ecological information

#### 12.1. Toxicity

Ecology - water : Harmful to aquatic life. Toxic to aquatic life. May cause long lasting harmful effects to aquatic life. Harmful to aquatic life with long lasting effects. Toxic to aquatic life with long lasting effects. Very toxic to aquatic life with long lasting effects.

<b>Triethylenediamine (280-57-9)</b>	
LC50 fish 1	1510 - 1980 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])

#### 12.2. Persistence and degradability

<b>Carbon (7440-44-0)</b>	
Persistence and degradability	Not established.

#### 12.3. Bioaccumulative potential

<b>Carbon (7440-44-0)</b>	
Bioaccumulative potential	Not established.

#### 12.4. Mobility in soil

No additional information available

#### 12.5. Other adverse effects

Effect on ozone layer : No known ecological damage caused by this product.  
Effect on the global warming : No known ecological damage caused by this product.

### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

Waste disposal recommendations : Dispose of contents/container to meet all regulations.

### SECTION 14: Transport information

In accordance with DOT

Not evaluated

#### Additional information

Other information : No supplementary information available.

#### ADR

No additional information available



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### Transport by sea

Not classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods (IMDG) Code Special Provision 925 for transport by sea; this carbon is made by a steam activation process.

### Air transport

Not classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations Special Provision A.3 for transport by air; when tested according to the United Nations Transport of Dangerous Goods test protocol this carbon does not meet the definition of a self-heating substance (IATA Class 4.2) or any other hazard class, and therefore should not be listed as a hazardous material.

## SECTION 15: Regulatory information

### 15.1. US Federal regulations

<b>Carbon (7440-44-0)</b>
Listed on the United States TSCA (Toxic Substances Control Act) inventory
<b>Potassium iodide (KI) (7681-11-0)</b>
Listed on the United States TSCA (Toxic Substances Control Act) inventory
<b>Triethylenediamine (280-57-9)</b>
Listed on the United States TSCA (Toxic Substances Control Act) inventory

### 15.2. International regulations

#### CANADA

<b>Carbon (7440-44-0)</b>	
Listed on the Canadian DSL (Domestic Substances List)	
WHMIS Classification	Uncontrolled product according to WHMIS classification criteria
<b>Potassium iodide (KI) (7681-11-0)</b>	
Listed on the Canadian DSL (Domestic Substances List)	
WHMIS Classification	Class D Division 2 Subdivision A - Very toxic material causing other toxic effects
<b>Triethylenediamine (280-57-9)</b>	
Listed on the Canadian DSL (Domestic Substances List)	

#### EU-Regulations

<b>Carbon (7440-44-0)</b>
Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)
<b>Potassium iodide (KI) (7681-11-0)</b>
Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)
<b>Triethylenediamine (280-57-9)</b>
Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

#### Classification according to Regulation (EC) No. 1272/2008 [CLP]

#### Classification according to Directive 67/548/EEC [DSD] or 1999/45/EC [DPD]

Not classified

### 15.2.2. National regulations

<b>Carbon (7440-44-0)</b>
Listed on the AICS (Australian Inventory of Chemical Substances)
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
Listed on the Korean ECL (Existing Chemicals List)
Listed on NZIoC (New Zealand Inventory of Chemicals)
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)
Listed on INSQ (Mexican national Inventory of Chemical Substances)
Listed on Turkish inventory of chemical



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### Potassium iodide (KI) (7681-11-0)

Listed on the AICS (Australian Inventory of Chemical Substances)  
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)  
Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory  
Listed on the Korean ECL (Existing Chemicals List)  
Listed on NZIoC (New Zealand Inventory of Chemicals)  
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)  
Listed on the Canadian IDL (Ingredient Disclosure List)  
Listed on INSQ (Mexican national Inventory of Chemical Substances)  
Listed on Turkish inventory of chemical

### Triethylenediamine (280-57-9)

Listed on the AICS (Australian Inventory of Chemical Substances)  
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)  
Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory  
Listed on the Korean ECL (Existing Chemicals List)  
Listed on NZIoC (New Zealand Inventory of Chemicals)  
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)  
Listed on the Canadian IDL (Ingredient Disclosure List)  
Listed on INSQ (Mexican national Inventory of Chemical Substances)  
Listed on Turkish inventory of chemical

### 15.3. US State regulations

## SECTION 16: Other information

### Full text of H-phrases:

----- Acute Tox. 4 (Oral)	Acute toxicity (oral) Category 4
----- Repr. 2	Reproductive toxicity Category 2
----- Skin Sens. 1B	Skin sensitization Category 1B
----- STOT RE 1	Specific target organ toxicity (repeated exposure) Category 1
----- H302	Harmful if swallowed
----- H317	May cause an allergic skin reaction
----- H361	Suspected of damaging fertility or the unborn child
----- H372	Causes damage to organs through prolonged or repeated exposure

### GHS US SDS

*This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product*