



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® TEG™ (Impregnated Activated Carbon)

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

1.1. Product identifier

Product name : NUSORB TEG (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 - <http://www.nucon-int.com/>

1.4. Emergency telephone number

Emergency number : +1-800-992-5192 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

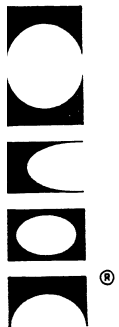
Name	Product identifier	%	GHS-US classification
Carbon	(CAS No) 7440-44-0	95	Not classified
Triethylenediamine	(CAS No) 280-57-9	5	Acute Tox. 4 (Oral), H302

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.



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® TEG™ (Impregnated Activated Carbon)

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

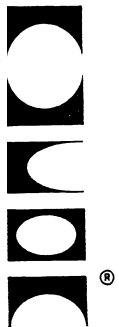
SECTION 7: Handling and storage

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.

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.



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® TEG™ (Impregnated Activated Carbon)

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

NUSORB KITEG (Impregnated coconut carbon for Radioiodine removal) (7440-44-0)	
ACGIH	Not applicable
OSHA	Not applicable
Carbon (7440-44-0)	
ACGIH	Not applicable
OSHA	Not applicable
Triethylenediamine (280-57-9)	
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

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



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® TEG™ (Impregnated Activated Carbon)

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

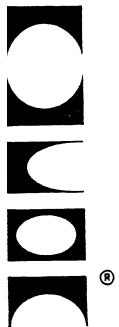
11.1. Information on toxicological effects

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
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



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® TEG™ (Impregnated Activated Carbon)

- 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.

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

12.2. Persistence and degradability

Carbon (7440-44-0)	
Persistence and degradability	Not established.

12.3. Bioaccumulative potential

Carbon (7440-44-0)	
Bioaccumulative potential	Not established.

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

- Effect on ozone layer :
- 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



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® TEG™ (Impregnated Activated Carbon)

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

Carbon (7440-44-0)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

Triethylenediamine (280-57-9)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

15.2. International regulations

CANADA

Carbon (7440-44-0)

Listed on the Canadian DSL (Domestic Substances List)

WHMIS Classification

Uncontrolled product according to WHMIS classification criteria

Triethylenediamine (280-57-9)

Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

Carbon (7440-44-0)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

Triethylenediamine (280-57-9)

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

Carbon (7440-44-0)

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 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



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[®] TEG[™] (Impregnated Activated Carbon)

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