



NUCON International, Inc.

MSDS 106  
Reviewed March 04, 2005  
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**NUCON International, Inc**  
**MATERIAL SAFETY DATA SHEET**  
**(Impregnated Coal Based Activated Carbon)**

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**SECTION 1: NAME**

NUSORB® KOGC™ (impregnated coal based activated carbon)

<b>SECTION 2: INGREDIENTS</b>	<b>%</b>	<b>TLV (ADGIH)</b>
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Activated carbon (CAS 7440-44-0)	90	Not listed *
Potassium Hydroxide (CAS 1310-58-3)	10	2 mg/m <sup>3</sup>

**SECTION 3: PHYSICAL DATA**

Boiling point: Not applicable  
Vapor Pressure (mmHg at 20°C): Zero  
Vapor density (air = 1): Not applicable  
Solubility: Insoluble in water and organic solvents  
pH: Not applicable  
Specific gravity: 400 - 600 g/l  
% Volatile by volume: Less than 1.0%  
Appearance and odor: Black granules, or pellets or powder, without taste or odor

**SECTION 4: FIRE AND EXPLOSION HAZARD DATA**

Flash point (and method): Not applicable  
Autoignition temp.: Powdered - No generally accepted test method available  
Granular - About 450°C (ANSI/ASTM D3466)  
Pellet - About 450°C (ANSI/ASTM D3466)

All carbonaceous materials will burn under certain conditions and activated carbons are no exception. Activated carbons, however, are not highly flammable and burn slowly without producing smoke or flame.



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**SECTION 4: FIRE AND EXPLOSION HAZARD DATA (continued)**

**Extinguishing media:**

Water (fog or fine spray), carbon dioxide  
Avoid methods which may stir up dust clouds.

**Special fire fighting protective equipment:**

Self-contained breathing apparatus.

**Unusual fire and explosion hazards:**

Airborne dust is a weak explosion hazard.

**SECTION 5: REACTIVITY DATA**

**Stability:**

Stable under normal conditions.

**Incompatibility (materials to avoid):**

Strong oxidizing agents, fluorine, strong mineral acids, reactive metals strong organic acids, copper.

**Hazardous decomposition products:**

Carbon dioxide, carbon monoxide

**Hazardous polymerization:**

Will not occur.

**SECTION 6: HEALTH HAZARD ASSESSMENT**

**General:**

No toxicity data are available. Physical and chemical properties of activated carbon are used for the health hazard assessment. **Carcinogenicity:** Activated carbon is not listed in the National Toxicology Program (NTP) Annual report on carcinogens nor has it been found to be a potential carcinogen in the International Agency for Research on Cancer (IARC) monographs or by OSHA.

**Potassium Hydroxide (KI): (Effects if over exposure to KOGC)**

**Ingestion:**

Results in sever damage of mucous membranes and deep tissues, can result in death on penetration of vital areas.



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**SECTION 6: HEALTH HAZARD ASSESSMENT (continued)**

**Eye Contact:**

Causes severe damage and even blindness very rapidly.

**Skin Absorption:**

This product is not known to be adsorbed through the human skin.

**Inhalation:**

Inhalation of mist or dust can cause damage to nasal and respiratory passages.

**Effect of Overexposure:**

No adverse clinical effects have been associated with exposures to this material.

**First Aid Procedures:**

**Skin:** Immediately flush exposed area with water for at least 15 minutes, get medical attention. Remove contaminated clothing and launder before re-use.

**Eyes:** Immediately flush with large amounts of water for at least 15 minutes, lifting upper and lower lids occasionally. Get immediate medical attention. If physician is not immediately available continue flushing with water.

**Ingestion:** Do not induce vomiting. Vomiting will cause further damage to the throat. Dilute by giving water. Give milk-of-magnesia. Keep warm and quiet. Get medical attention. (Never give anything by mouth to an unconscious person.)

**Inhalation:** Remove victim to fresh air. If cough or other respiratory symptoms develop, consult medical personnel.

**SECTION 7: SPILL OR LEAK PROCEDURES**

**Steps to be taken in case material is released or spilled:**

Wear respiratory protection during cleanup. Sweep up and recover or mix material with water and shovel into waste container. Wash down spill area with water containing detergent and flush away with plenty of water.

**Disposal method:**

Dispose of virgin (unused) carbon (waste or spillage) by neutralizing the potassium hydroxide in a large amount of water containing a 6 M hydrochloric acid. Flush water down drain and place remaining carbon in a facility for non-hazardous materials in accordance with applicable regulations.

**Container disposal:**

Do not reuse empty bags. Dispose of in facility permitted for non-hazardous waste.



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**SECTION 8: SPECIAL PROTECTION INFORMATION**

**TLV or suggested control value:**

The current OSHA and ACGIH limit for dusts which contain more than 1% quartz are as follows for NUCON steam activated coal base carbons:

Respirable Dust Limit	=	0.7 mg/m <sup>3</sup>	(OSHA and ACGIH)
Total Dust Limit	=	2.1 mg/m <sup>3</sup>	(OSHA)
Total Dust Limit	=	2.0 mg/m <sup>3</sup>	(ACGIH)

**Ventilation:**

Provide adequate general and local exhaust ventilation to meet suggested control value requirements.

**Respiratory Protection:**

If needed, use MSHA-NIOSH approved respirator for dusts, mists and fumes whose TLV is greater than 0.05 mg/m<sup>3</sup>.

**Protective Clothing:**

For personal hygiene purposes use adequate clothing to prevent skin contact.

**Eye Protection:**

Safety glasses with side shields.  
Contact lenses should not be worn when working with activated carbon.

**Other protective equipment:**

Eyewash station in work area.

**SECTION 9: SPECIAL PRECAUTIONS OR OTHER COMMENTS**

**Precautions to be taken in handling or storing:**

Activated carbon can be safely stored in any normal storage area, but away from sources of direct heat.

An oxygen deficiency may be created when activated carbon is stored in an enclosed space/silo. Ventilate or wear self-contained breathing apparatus.

The information herein is given in good faith but no warranty, expressed or implied, is made.

**J. Louis Kovach,**  
**President**