

**Attachment B**

**Safety Data Sheet (SDS)**



## Safety Data Sheet

# COGAC™

Updated: 10/09/2017

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### 1. PRODUCT AND COMPANY IDENTIFICATION:

Product Identifier: Chemically Oxygenated Granular Activated Carbon

## COGAC™

Description: Fine Black Powder or Course Granules

Product Use: Water Treatment

Usage Restrictions: For subsurface applications

Manufacturers / Suppliers Name: Remington Technologies LLC,  
8100 Arkins Court  
Loveland, Colorado 80538  
[www.remingtontech.net](http://www.remingtontech.net)

Emergency Phone: (970) 278-1646  
Poison Control Center 1(800) 222-1222

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### 2. HAZARDS (S) IDENTIFICATION:

80% of this material is composed of powdered activated carbon. The remaining 20% includes oxidizers and nutrients. These additives are neutralized by the carbon in solid form. Once the package is opened, dust will be present and an adequate dust mask or respirator is required for handling.

Hazard Classification: Combustible Dust

Signal Word: **Danger**

Potential Health Effects:

Inhalation: Irritation of respiratory system

Skin: Not a primary irritant

Ingestion: Non-toxic through ingestion

Eyes: Irritation

Hazard Statements :

H320- Causes eye irritation :

H335- May cause respiratory irritation

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Precautionary statements (GHS-US) :

P261- Avoid breathing dust :

P264- Wash thoroughly after handling :

P271- Use in well-ventilated area :

P280- Wear protective gloves/clothing/eye & face protect :

P304&340: IF INHALED: Remove person to fresh air

P305&351&P338: If in eyes, Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do so. Continue rinsing. :

P312- Call Poison Control Center/Doctor if you feel sick.

P403& P233- Store in well-ventilated place. Keep container tightly closed :

P405- Store locked up : P501- Dispose of container to appropriate receptacle

**Hazards not otherwise classified:** Combustible dust. May form combustible dust concentrations in air. All powdered activated carbons are classified as weakly explosive (Dust explosion class St1): Given the necessary conditions of a strong ignition source, right concentrations of airborne carbon dust, adequate oxygen levels, and confinement, the potential for a deflagration event exists.



### 3. COMPOSITION/INFORMATION ON INGREDIENTS:

Ingredients:	Percentage (W/W):	LD50's and LC50s Route & Species:
Activated Carbon - 7440-44-0	60-100	Oral LD50 (Rat) > 10000 mg/kg

Ingredients:	Percentage (W/W):	EC No:	EC Class:
Sodium Persulfate - 7775-27-1	>99	231-892-1	Xn-O; R8-R22-R36/37/38-R42/43



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Ingredients:	Percentage (W/W):	LD50's and LC50s Route & Species:
Calcium Peroxide – 1305-79-9	100	Oral LD50: Acute (Rat) > 5000 mg/kg DERMAL LD50: Acute (Rat) > 10000 mg/kg DUST LC50: Acute (Rat) 23066 ppm 4 hour(s)

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#### 4. FIRST AID MEASURES:

Effects of Overexposure:

Inhalation: Irritation of respiratory system  
Skin: Not a primary irritant  
Ingestion: Non-toxic through ingestion  
Eyes: Irritation

First Aid:

First aid after inhalation Remove person to fresh air. If not breathing, administer CPR or artificial respiration. Get immediate medical attention.

First aid after skin contact If skin reddening or irritation develops, seek medical attention  
First aid after eye contact Immediately flush eyes with plenty of water for at least 15 minutes. If irritation persists, get medical attention.

First aid after ingestion If the material is swallowed, get immediate medical attention or advice. DO NOT induce vomiting unless directed to do so by medical personnel.

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#### 5. FIRE FIGHTING MEASURES:

Extinguishing Media: Water, Foam, CO2

Fire & Explosion Hazards: Contact with strong oxidizing catalysts may result in heat generation.

Firefighting procedures: None. Does not support a flame may generate heat as above.

Flash Point: N/A

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#### 6. ACCIDENTAL RELEASE MEASURES:

Spilled or released material may be swept up and discarded at a landfill or reused.

Waste disposal at a landfill as non-toxic, non-hazardous material.



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Shovel or sweep up and put in closed container for disposal

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### 7. HANDLING AND STORAGE:

Handling: Store (unopened) in a cool, clean, dry place and away from point source, i.e., radiant heaters or steam pipes. Use first in first out storage system. Avoid contamination of opened product. Avoid prolonged or repeated skin contact using good personal hygiene. In case of fire or decomposition (smoking) use self-contained breathing apparatus with full face piece, acid resistant clothing, and deluge with plenty of water to control decomposition.

Storage: Refer to NFPA 430 Storage of Liquid and Solid Oxidizing Materials.

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### 8. EXPOSURE CONTROLS / PERSONAL PROTECTION:

Airborne Exposure Limits: - OSHA Permissible Exposure Limits (PELs) - For Activated Carbon (graphite, synthetic): total particulate = 15 mg/m<sup>3</sup> (TWA), respirable fraction = 5 mg/m<sup>3</sup> (TWA).

Ventilation System: A system of local and/or general exhaust is recommended to keep employee exposures below the Airborne Exposure Limits. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Please refer to the ACGIH document, Industrial Ventilation, A Manual of Recommended Practices, most recent edition, for details.

Personal Respirators (NIOSH Approved): For conditions of use where exposure to dust or mist is apparent and engineering controls are not feasible, a particulate respirator (NIOSH type N95 or better filters) may be worn. If oil particles (e.g. lubricants, cutting fluids, glycerine, etc.) are present, use a NIOSH type R or P filter. For emergencies or instances where the exposure levels are not known, use a full-face positive-pressure, air-supplied respirator.

WARNING: Air-purifying respirators do not protect workers in oxygen-deficient atmospheres. Where respirators are required, you must have a written program covering the basic requirements in the OSHA respirator standard. These include training, fit testing, medical approval, cleaning, maintenance, cartridge change schedules, etc. See 29CFR1910.134 for details.

Skin Protection: Wear protective gloves and clean body-covering clothing.

Eye Protection: Use chemical safety goggles. Maintain eye wash fountain and quick-drench facilities in work area.



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### 9. PHYSICAL AND CHEMICAL PROPERTIES:

Physical State	Solid
Appearance:	Black Powder particulate
Odor:	No data available
pH	6.0-9.0
Melting point	3652 C / 6606 F
Freezing point	3697 C /-6687 F
Boiling Point:	2150 C [decomposes]
Evaporation rate	No data available
Explosion Limit Upper/lower	No Data available
Incompatibility:	Strong catalysts
Solubility in water:	Not Soluble in water
Flash Point:	No data available
Specific Gravity:	0.35
Stability:	Stable
Vapor Pressure	No data available
Vapor density @ 20 deg C :	No data available
Relative Density	28-33 lb/ cubic foot
Viscosity, kinematic	No data available

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### 10. STABILITY AND REACTIVITY:

Stability:	Stable
Incompatibility:	Oxidizing catalysts, metals, nitric acid, hydrogen peroxide
Polymerization:	N/A
Decomposition:	N/A
Hazardous decomposition	Carbon monoxide may be generate in the vent of a fire



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products

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### 11. TOXICOLOGICAL INFORMATION:

Inhalation: Irritation of respiratory system

Skin: Not a primary irritant

Ingestion: Non-Toxic through ingestion

Eyes: Irritation

Acute toxicity: Not classified

Carbon (7440-44-0) LD50 oral rat : >10000 mg/kg Skin corrosion/irritation : Not classified Serious eye damage/irritation : Causes eye irritation Respiratory or skin sensitization : Not classified Germ cell mutagenicity : Not classified Carcinogenicity : Not classified Reproductive toxicity : Not classified Specific target organ toxicity : May cause respiratory irritation (single exposure) Specific target organ toxicity : Not classified (repeated exposure) Aspiration hazard : Not classified

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### 12. ECOLOGICAL INFORMATION (non-mandatory):

No information available for the product. However, ecotoxicity is expected to be minimal.

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### 13. DISPOSAL CONSIDERATIONS (non-mandatory):

Waste Disposal recommendations : Dispose of contents/container in accordance with local/regional/ international regulations

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### 14. TRANSPORTING INFORMATION (non-mandatory):

Note 1: Under the UN classification for activated carbon, all activated carbons have been identified as a class 4.2 product. However, This product has been tested according to the United Nations Transport of Dangerous Goods test protocol for a "self-heating substance" (United Nations Transportation of Dangerous Goods, Manual of Tests and Criteria, Part III, Section 33.3.1.6 - Test N.4 - Test Method for Self Heating Substances) and it has been specifically determined that this product does not meet the definition of a self heating substance (class 4.2)



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or any other hazard class, and therefore should not be listed as a hazardous material. This information is applicable only for the Activated Carbon Product identified in this document.

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### 15. REGULATORY INFORMATION (non-mandatory)

15.1 US Federal regulations Carbon (7440-44-0)

Listed on the United States TSCA inventory 15.3

US State regulations : No additional information available

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### 16. ADDITIONAL INFORMATION:

NFPA Rating Health: 1 Fire: 1 Reactivity: 0

HMIS Rating Health: 0 Fire: 0 Reactivity: 0 Personal Protection: B

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