## SECTION 1: Identification of the Substance/Mixture and of the Company/Undertaking

### 1.1. Product identifier

Product name : 787 8X16

Product form : Mixture

Product code : 7406

Other means of identification : Activated Carbon

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

Use of the substance/mixture : Adsorbent

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

Calgon Carbon Corporation
P.O. Box 717
Pittsburgh, PA 15230
412-787-6700

### 1.4. Emergency telephone number

Emergency number : CHEMTREC (24 HRS): 1-800-424-9300

## SECTION 2: Hazards Identification

### 2.1. Classification of the substance or mixture

**GHS-US classification**

| | |
|---|---|
| Combustible Dust | H232 |
| Skin Irritant 2 | H315 |
| Eye Irritant 2A | H319 |
| STOT RE 1 | H372 |

*Not classified as a simple asphyxiant. Product does not displace oxygen in the ambient atmosphere, but slowly adsorbs oxygen from a confined space when wet. Under conditions of anticipated and recommended use, product does not pose an asphyxiation hazard.*

### 2.2. Label elements

**GHS-US labeling**

Hazard pictograms (GHS-US) :

GHS07 GHS08

Signal word (GHS-US) : **Danger**

Hazard statements (GHS-US) :
H232 - May form combustible dust concentrations in air
H315 - Causes skin irritation
H319 - Causes serious eye irritation
H372 - Causes damage to organs (thyroid gland) through prolonged or repeated exposure

Precautionary statements (GHS-US) :
P260 - Do not breathe dust
P264 - Wash hands, forearms and face thoroughly after handling
P270 - Do not eat, drink or smoke when using this product
P280 - Wear protective gloves, eye protection
P302+P352 - If on skin: Wash with plenty of soap and water
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P314 - Get medical advice/attention if you feel unwell
P332+P313 - If skin irritation occurs: Get medical advice/attention
P337+P313 - If eye irritation persists: Get medical advice/attention
P362 - Take off contaminated clothing and wash before reuse
P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation

### 2.3. Other hazards

Other hazards not contributing to the classification : Wet activated carbon can deplete oxygen from air in enclosed spaces. If use in an enclosed space is required, procedures for work in an oxygen deficient environment should be followed.

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

No data available

## SECTION 3: Composition/Information on Ingredients

### 3.1. Substance

Not applicable

### 3.2. Mixture

| Name | Product identifier | % |
|---|---|---|
| Activated Carbon | (CAS No) 7440-44-0 | ≥ 80 |
| Potassium iodide | (CAS No) 7681-11-0 | ≤ 10 |
| Triethylenediamine (TEDA) | (CAS No) 280-57-9 | ≤ 10 |

## SECTION 4: First Aid Measures

### 4.1. Description of first aid measures

First-aid measures general : If exposed or concerned, get medical attention/advice. Show this safety data sheet to the doctor in attendance. Wash contaminated clothing before re-use. Never give anything to an unconscious person.

First-aid measures after inhalation : IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if breathing is affected.

First-aid measures after skin contact : IF ON SKIN (or clothing): Remove affected clothing and wash all exposed skin with water for at least 15 minutes. If irritation develops or persists, get medical attention.

First-aid measures after eye contact : IF IN EYES: Immediately flush with plenty of water for at least 15 minutes. Remove contact lenses if present and easy to do so. If pain, blinking, or irritation develops or persists, get medical attention. Continue rinsing.

First-aid measures after ingestion : IF SWALLOWED: Rinse mouth thoroughly. Do not induce vomiting without advice from poison control center or medical professional. Get medical attention if you feel unwell.

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

Symptoms/injuries : Causes skin irritation. Causes severe eye irritation. May cause damage to organs (thyroid gland) through prolonged or repeated exposure.

Symptoms/injuries after inhalation : Not expected to present a significant inhalation hazard under anticipated conditions of normal use.

Symptoms/injuries after skin contact : Causes skin irritation.

Symptoms/injuries after eye contact : Causes serious eye irritation.

Symptoms/injuries after ingestion : Not expected to present a significant ingestion hazard under anticipated conditions of normal use.

Chronic symptoms : May cause damage to organs through prolonged or repeated exposure.

### 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 : Water spray. Carbon dioxide. Dry chemical. Foam. Sand.

Unsuitable extinguishing media : None known.

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

Fire hazard : Dust may be combustible under specific conditions. May be ignited by heat, sparks or flames.

Explosion hazard : Dust may form explosive mixture in air.

Reactivity : No dangerous reactions known under normal conditions of use. Carbon oxides, nitrogen oxides, sulphur oxides, metal oxide fumes, and ammonia may be emitted upon combustion of material.

### 5.3. Advice for firefighters

Firefighting instructions : Wear NIOSH-approved self-contained breathing apparatus suitable for the surrounding fire. Use water spray or fog for cooling exposed containers. Evacuate area.

## SECTION 6: Accidental Release Measures

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

General measures : Evacuate area. Keep upwind. Ventilate area. Spill should be handled by trained clean-up crews properly equipped with respiratory equipment and full chemical protective gear (see Section 8).

#### 6.1.1. For non-emergency personnel

No additional information available

#### 6.1.2. For emergency responders

No additional information available

### 6.2. Environmental precautions

Prevent entry to sewers and public waters. Avoid release to the environment. Product is not soluble, but can cause particulate emission if discharged into waterways. Dike all entrances to sewers and drains to avoid introducing material to waterways. Notify authorities if product enters sewers or public waters.

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

For containment : Sweep or shovel spills into appropriate container for disposal. Minimize generation of dust.

Methods for cleaning up : Sweep or shovel spills into appropriate container for disposal. Minimize generation of dust. Dispose of material in compliance with local, state, and federal regulations.

### 6.4. Reference to other sections

No additional information available

## SECTION 7: Handling and Storage

### 7.1. Precautions for safe handling

Precautions for safe handling : Avoid dust formation. Avoid contact with skin, eyes and clothing. Do not handle until all safety precautions have been read and understood. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Keep away from sources of ignition - No smoking.

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

Storage conditions : Keep container tightly closed in a cool, dry, and well-ventilated place. Keep away from ignition sources.

## SECTION 8: Exposure Controls/Personal Protection

### 8.1. Control parameters

| **Activated Carbon (7440-44-0)*** | |
|---|---|
| OSHA PEL (TWA) (mg/m³) | ≤ 5 (Respirable Fraction)<br>≤ 15 (Total Dust) |

| **Potassium iodide (7681-11-0)** | |
|---|---|
| Remark (ACGIH) | OELs not established |
| Remark (OSHA) | OELs not established |

| **Triethylenediamine (TEDA) (280-57-9)** | |
|---|---|
| Remark (ACGIH) | OELs not established |
| Remark (OSHA) | OELs not established |

*Exposure limits are for inert or nuisance dust. No specific exposure limits have been established for this activated carbon product by OSHA or ACGIH

### 8.2. Exposure controls

Appropriate engineering controls : Provide adequate general and local exhaust ventilation. Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits. Use explosion-proof equipment with flammable materials. Ensure adequate ventilation, especially in confined areas. Wet activated carbon can deplete oxygen from air in enclosed spaces. If use in an enclosed space is required, procedures for work in an oxygen deficient environment should be followed.

Personal protective equipment : Gloves. Safety glasses. Insufficient ventilation: wear respiratory protection.

Hand protection : Gloves should be classified under Standard EN 374 or ASTM F1296. Suggested glove materials are: Neoprene, Nitrile/butadiene rubber, Polyethylene, Ethyl vinyl alcohol laminate, PVC or vinyl. Suitable gloves for this specific application can be recommended by the glove supplier.

Eye protection : Safety glasses.

Skin and body protection : Wear long sleeves, and chemically impervious PPE/coveralls to minimize bodily exposure.

Respiratory protection : Use NIOSH-approved dust/particulate respirator. Where vapor, mist, or dust exceed PELs or other applicable OELs, use NIOSH-approved respiratory protective equipment.

## SECTION 9: Physical and Chemical Properties

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

| | | |
|---|---|---|
| Physical state | : | Solid |
| Appearance | : | Granular, powder, or pelletized substance |
| Color | : | Black |
| Odor | : | Odorless |
| Odor threshold | : | No data available |
| pH | : | No data available |
| Relative evaporation rate (butylacetate=1) | : | Not applicable |
| Melting point | : | Not applicable |
| Freezing point | : | Not applicable |
| Boiling point | : | Not applicable |
| Flash point | : | No data available |
| Auto-ignition temperature | : | > 220 °C |
| Decomposition temperature | : | No data available |
| Flammability (solid, gas) | : | > 220 °C |
| Vapor pressure | : | Not applicable |
| Relative vapor density at 20 °C | : | Not applicable |
| Apparent density | : | 0.4 - 0.7 g/cc |
| Solubility | : | Carbon portion insoluble; impregnates soluble |
| Log Pow | : | Not applicable |
| Log Kow | : | Not applicable |
| Viscosity, kinematic | : | Not applicable |
| Viscosity, dynamic | : | Not applicable |
| Explosive properties | : | No data available |
| Oxidizing properties | : | No data available |
| Explosive limits | : | No data available |

### 9.2. Other information

No additional information available

## SECTION 10: Stability and Reactivity

### 10.1. Reactivity

No dangerous reactions known under normal conditions of use. Carbon oxides, metal oxide fumes, and ionic halogen fumes may be emitted upon combustion of material. Decomposition of sodium hydroxide by reaction with certain metals releases flammable hydrogen gas.

### 10.2. Chemical stability

Stable under use and storage conditions as recommended in section 7.

### 10.3. Possibility of hazardous reactions

None known.

### 10.4. Conditions to avoid

Exposure to high concentrations of organic compounds may cause bed temperature to rise. Avoid dust formation. Heat. Ignition sources.

### 10.5. Incompatible materials

Alkali metals. Strong oxidizing agents.

### 10.6. Hazardous decomposition products

Carbon monoxide (CO), carbon dioxide ($CO_2$). Nitrogen oxides. Sulfur oxides. Metal oxide fumes. Ammonia. Halogens and ionic halogen fumes.

## SECTION 11: Toxicological Information

### 11.1. Information on toxicological effects

Acute toxicity : Not classified

| **Activated Carbon (7440-44-0)** | |
|---|---|
| LD50 oral rat | > 2000 mg/kg |

| **Triethylenediamine (TEDA) (280-57-9)** | |
|---|---|
| LD50 oral rat | 1700 mg/kg |

| Triethylenediamine (TEDA) (280-57-9) | |
|---|---|
| LD50 dermal rabbit | 3200 mg/kg |

Skin corrosion/irritation : Causes skin irritation

Serious eye damage/irritation : Causes severe eye irritation

Respiratory or skin sensitisation : Not classified

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

| Silica: Crystalline, quartz (14808-60-7) | |
|---|---|
| IARC group | 1 - Carcinogenic to humans |
| The International Agency for Research on Cancer (IARC) has classified "silica dust, crystalline, in the form of quartz or cristobalite" as carcinogenic to humans (group 1). However these warnings refer to crystalline silica dusts and do not apply to solid activated carbon containing crystalline silica as a naturally occuring, bound impurity. As such, we have not classified this product as a carcinogen in accordance with the US OSHA Hazard Communication Standard (29 CFR §1910.1200) but recommmend that users avoid inhalation of product in a dust form. | |

Reproductive toxicity : Not classified

Specific target organ toxicity (single exposure) : Not classified

Specific target organ toxicity (repeated exposure) : Causes damage to organs (thyroid gland) through prolonged or repeated exposure.

Aspiration hazard : Not classified

Symptoms/injuries after inhalation : Not expected to present a significant inhalation hazard under anticipated conditions of normal use.

Symptoms/injuries after skin contact : Causes skin irritation. Product was negative for corrosivity in an OECD 431 test (EPI-200-Skin Corrosion Test)

Symptoms/injuries after eye contact : Causes serious eye irritation.

Symptoms/injuries after ingestion : Not expected to present a significant ingestion hazard under anticipated conditions of normal use.

## SECTION 12: Ecological Information

**12.1. Toxicity**

No additional information available

**12.2. Persistence and degradability**

No additional information available

**12.3. Bioaccumulative potential**

No additional information available

**12.4. Mobility in soil**

No additional information available

**12.5. Other adverse effects**

No additional information available

## SECTION 13: Disposal Considerations

**13.1. Waste treatment methods**

Waste treatment and disposal methods : Vacuum or shovel material into a closed container. Dispose in a safe manner in accordance with local/national regulations. Do not allow the product to be released into the environment.

Additional information : Activated carbon is an adsorbent media; hazard classification is generally determined by the adsorbate. Consult U.S. EPA guidelines listed in 40 CFR 261.3 for more information on hazardous waste disposal.

## SECTION 14: Transport Information

**14.1. In accordance with DOT**

Not classified as hazardous for domestic land transport

UN-No.(DOT) : None on finished product

DOT NA no. : None on finished product

Proper Shipping Name (DOT) : Not regulated

Department of Transportation (DOT) Hazard Classes : None on finished product

Hazard labels (DOT) : None on finished product

| | |
|---|---|
| Packing group (DOT) | : None on finished product |
| DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27) | : None on finished product |

**14.2. Transport by sea**

Not classified as hazardous for water transport

IMO / IMDG

| | |
|---|---|
| UN/NA Identification Number | : None on finished product |
| UN- Proper Shipping Name | : Not regulated |
| Transport Hazard Class | : None on finished product |

**14.3. Air transport**

Not classified as hazardous for air transport

ICAO / IATA

| | |
|---|---|
| UN/NA No | : None on finished product |
| UN- Proper Shipping Name | : Not regulated |
| Transport Hazard Class | : None on finished product |
| Packing Group | : None on finished product |
| Marine Pollutant | : None on finished product |

**14.4. Additional information**

Other information : Under the UN classification for activated carbon, all activated carbons have been identified as a class 4.2 product. However, this product type or an equivalent 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 type or an equivalent does not meet the definition of a DOT self-heating substance (class 4.2) or any other hazard class.

## SECTION 15: Regulatory Information

**15.1. US Federal regulations**

| **787 8X16** | |
|---|---|
| All chemical substances in this product are listed in the EPA (Environment Protection Agency) TSCA (Toxic Substances Control Act) Inventory or are exempt. | |
| SARA Section 311/312 Hazard Classes | Immediate (acute) health hazard<br>Delayed (chronic) health hazard |

| **Cobalt (7440-48-4)*** | |
|---|---|
| Listed on the United States TSCA (Toxic Substances Control Act) inventory<br>Listed on United States SARA Section 313 | |
| SARA Section 313 - Emission Reporting | 0.1 % |

*Present below de minimis levels

**15.2. International regulations**

No additional information available

**15.3. US State regulations**

**California Proposition 65**

WARNING: This product contains, or may contain, trace quantities of a substance(s) known to the state of California to cause cancer, birth defects, or other reproductive harm.

| **Silica: Crystalline, quartz (14808-60-7)** | | | | |
|---|---|---|---|---|
| U.S. - California - Proposition 65 - Carcinogens List | U.S. - California - Proposition 65 - Developmental Toxicity | U.S. - California - Proposition 65 - Reproductive Toxicity - Female | U.S. - California - Proposition 65 - Reproductive Toxicity - Male | No significance risk level (NSRL) |
| Yes | No | No | No | NA |

| **Cobalt (7440-48-4)** | | | | |
|---|---|---|---|---|
| U.S. - California - Proposition 65 - Carcinogens List | U.S. - California - Proposition 65 - Developmental Toxicity | U.S. - California - Proposition 65 - Reproductive Toxicity - Female | U.S. - California - Proposition 65 - Reproductive Toxicity - Male | No significance risk level (NSRL) |
| Yes | No | No | No | NA |

| **Titanium dioxide (13463-67-7)** | | | | |
|---|---|---|---|---|
| U.S. - California - Proposition 65 - Carcinogens List | U.S. - California - Proposition 65 - Developmental Toxicity | U.S. - California - Proposition 65 - Reproductive Toxicity - Female | U.S. - California - Proposition 65 - Reproductive Toxicity - Male | No significance risk level (NSRL) |
| Yes | No | No | No | NA |

| **Aluminum oxide (1344-28-1)** |
|---|
| U.S. - New Jersey - Right to Know Hazardous Substance List<br>U.S. - Massachusetts - Right To Know List<br>U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List |

| **Calcium sulfate (7778-18-9)** |
|---|
| U.S. - Massachusetts - Right to Know List<br>U.S. - New Jersey - Right to Know Hazardous Substance List<br>U.S. - Pennsylvania - RTK (Right to Know) List |

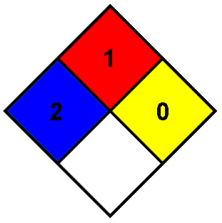
| **Silica: Crystalline, quartz (14808-60-7)** |
|---|
| U.S. - New Jersey - Right to Know Hazardous Substance List<br>U.S. - Pennsylvania - RTK (Right to Know) List<br>U.S. - Massachusetts - Right To Know List |

## SECTION 16: Other Information

Indication of changes : Revision 1.0: New SDS Created.
Revision Date : 06/04/2015
Other information : Author: CJS.
For internal use only : PR #37

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

NFPA health hazard : 2 - Intense or continued exposure could cause temporary incapacitation or possible residual injury unless prompt medical attention is given.
NFPA fire hazard : 1 - Must be preheated before ignition can occur.
NFPA reactivity : 0 - Normally stable, even under fire exposure conditions, and are not reactive with water.




**HMIS III Rating**

Health : 2*
Flammability : 1
Physical : 0
Personal Protection :

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. The information is this document applies to this specific material as supplied. It may not be valid if product is used in combination with other materials. It is the user's responsibility to determine the suitability and completeness of this information for their particular use. While the information and recommendations set forth herein are believed to be accurate as of the date hereof, Calgon Carbon Corporation makes no warranty with respect to the same, and disclaims all liability for reliance thereon.