Dear Customer,

This File Contains Both The ANSI Material Safety Data Sheet and The GHS Safety Data Sheet For The Same Product

Spectrum is currently transitioning all chemical product labeling from the ANSI\(^1\) format to the GHS\(^2\) format (see note below). In order to ensure that you receive complete labeling during the transition, we have included both the ANSI MSDS and the GHS SDS in a single file. The ANSI MSDS is given first, followed by the GHS SDS. Please use whichever matches the container label.

Why It Matters:

The complete precautionary labeling for this chemical consists of BOTH the label on the container AND the matching Material Safety Data Sheet (for ANSI labels) or Safety Data Sheet (for GHS labels). Both elements of the labeling [Label + (M)SDS] are written to be read and understood together, so as to provide complete precautionary information. It is intended for you to read and understood BOTH before handling or using the chemical.

Picking the Right One: 2 Easy Ways To Tell Whether Your Container Has an ANSI Label or a GHS Label

1) GHS labels: any pictogram displayed in the upper left-hand corner will be inside a red diamond. ANSI labels: pictograms, if present, will be inside individual black boxes.

2) GHS labels: on the bottom of the right-hand panel of the label, locate the Lot Number. Directly to the left will be a string of control characters, followed by a single letter. For GHS labels, the string of characters will end in "GHS:"

---

**Label in ANSI Format**

CAUTION!

MAY BE HETEROGENEOUS

May cause severe eye irritation and serious percutaneous effects. May cause respiratory irritation. May cause sensitization upon repeated exposure. Inhalation, skin and eye contact, or ingestion may cause death. Flammable. Avoid contact with heat, flames, sparks, and other ignition sources. Avoid contact with oxidants, strong acids, strong bases, and strong alkalis. Keep container tightly closed and store in cool, dry area.

KEEP OUT OF REACH OF CHILDREN

SIZ SY

Benzyl Benzoate

(Benzoic Acid Phenylether Ester)

U.S.P.

CAS 120-41-4

**GHS**

For manufacturing, processing or importing: First aid information: In case of contact with skin or hair: Remove contaminated clothing and wash immediately with soap and sufficient water. In case of contact with eyes: Rinse immediately with plenty of water. If skin irritation occurs: Get medical advice/attention. If muscular weakness occurs: Get medical advice/attention.

---

C. H. D. F. W. 212.24

E. D. 59

---

**Corporate Offices**

14422 South San Pedro Street

Gardena, California 90248

PHONE 310.516.8000

FAX 310.516.9843

AN ISO 9001:2008 REGISTERED COMPANY
1 American National Standards Institute
2 Globally Harmonized System for Hazard Communication

Sincerely,

Regulatory Affairs
SAFETY DATA SHEET

Preparation Date: 4/13/2015  Revision Date: 4/13/2014  Revision Number: G1

Product code: CH103  Product Name: CHARCOAL, ACTIVATED, DARCO(R) G60, 100-325 MESH, POWDER

Other means of identification
Synonyms: Activated carbon
CAS #: 7440-44-0
RTECS #: FF5250100
CI#: Not available

Recommended use of the chemical and restrictions on use
Recommended use: No information available.
Uses advised against: No information available

Supplier: Spectrum Chemicals and Laboratory Products, Inc.
14422 South San Pedro St.
Gardena, CA 90248
(310) 516-8000
Order Online At: https://www.spectrumchemical.com

Emergency telephone number
Chemtrec 1-800-424-9300
Contact Person: Martin LaBenz (West Coast)
Contact Person: Ibad Tirmiz (East Coast)

2. HAZARDS IDENTIFICATION

Classification
This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)
Not a dangerous substance or mixture according to the Globally Harmonized System (GHS)

Combustible dust -

Label elements

Warning

May form combustible dust concentrations in air

Hazards not otherwise classified (HNOC)
Not Applicable
3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Weight %</th>
<th>Trade Secret</th>
</tr>
</thead>
<tbody>
<tr>
<td>Charcoal activated</td>
<td>7440-44-0</td>
<td>100</td>
<td>*</td>
</tr>
</tbody>
</table>

4. FIRST AID MEASURES

First aid measures

General Advice: Poison information centers in each State capital city can provide additional assistance for scheduled poisons (13 1126)

Skin Contact: Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes. Get medical attention if irritation develops.

Eye Contact: Flush eye with water for 15 minutes. Get medical attention if irritation occurs. If symptoms persist, call a physician.

Inhalation: Move to fresh air. If breathing is difficult, give oxygen. In case of shortness of breath, give oxygen. Get medical attention.

Ingestion: Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Consult a physician if necessary.

Most important symptoms and effects, both acute and delayed

Symptoms: May cause eye/skin irritation.

Indication of any immediate medical attention and special treatment needed

Notes to Physician: Treat symptomatically

Protection of first-aiders

First-Aid Providers: Avoid exposure to blood or body fluids. Wear gloves and other necessary protective clothing. Dispose of contaminated clothing and equipment as bio-hazardous waste

5. FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media: It is non-combustible under normal circumstances and difficult to ignite. However, once ignited, the fire generally burns slowly (smolders) with a dull glow and without producing smoke or flame. Extinguish the fire using water fog, fine water spray, carbon dioxide or foam.

Unsuitable Extinguishing Media: No information available.

Specific hazards arising from the chemical

Hazardous Combustion Products: Carbon monoxide; Carbon dioxide

Product code: CH103

Product name: CHARCOAL, ACTIVATED, DARCO(R) G60, 100-325 MESH, POWDER
Specific hazards:
Avoid generating dust
Fine dust dispersed in air in sufficient concentrations, and in
the presence of an ignition source is a potential dust
explosion hazard
Activated carbons have a high surface area which may
cause self-heating during oxidation. An adequate air gap
between packages of activated carbon is recommended to
reduce the risk of propagation of the event

Special Protective Actions for Firefighters
Specific Methods: No information available.
Special Protective Equipment for Firefighters: As in any fire, wear self-contained breathing apparatus
pressure-demand, MSHA/NIOSH (approved or equivalent)
and full protective gear

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures
Personal Precautions: Ensure adequate ventilation. Use personal protective equipment. Avoid contact with skin, eyes
and clothing. Remove all sources of ignition. Avoid dust formation. Avoid dispersal of dust in
the air. Dust deposits should not be allowed to accumulate on surfaces, as these may form an
explosive mixture if they are released into the atmosphere in sufficient concentration.
Nonsparking tools should be used.

Environmental precautions Prevent further leakage or spillage if safe to do so.

Methods and material for containment and cleaning up
Methods for containment Stop leak if you can do it without risk. Cover with plastic sheet to prevent spreading.
Methods for cleaning up Sweep up and shovel into suitable containers for disposal. Clean contaminated
surface thoroughly.

7. HANDLING AND STORAGE

Precautions for safe handling

Technical Measures/Precautions:
Provide sufficient air exchange and/or exhaust in work rooms. Minimize dust generation and accumulation. Avoid
dust formation. Dry powders can build static electricity charges when subjected to friction of transfer and mixing
operations. All equipment used when handling the product must be grounded. Routine housekeeping should be
instituted to ensure that dusts do not accumulate on surfaces. Keep away from incompatible materials.

Safe Handling Advice:
Wear personal protective equipment. Avoid contact with skin, eyes and clothing. Avoid dust formation. Do not
ingest. Do not breathe vapours/dust. Keep away from heat and sources of ignition. Handle in accordance with good
industrial hygiene and safety practice.

Conditions for safe storage, including any incompatibilities

Technical Measures/Storage Conditions:
Keep container tightly closed in a dry and well-ventilated place. Store at room temperature in the original container.
Store away from incompatible materials.

Incompatible Materials:
Strong oxidizing agents. Strong acids.
8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

National occupational exposure limits

U.S Occupational Exposure Limits: Not determined

<table>
<thead>
<tr>
<th>Components</th>
<th>OSHA</th>
<th>NIOSH</th>
<th>ACGIH</th>
<th>AIHA WHEEL</th>
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<tbody>
<tr>
<td>Charcoal activated - 7440-44-0</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>

Canada
Canada Occupational Exposure Limits: Not determined

<table>
<thead>
<tr>
<th>Components</th>
<th>Alberta</th>
<th>British Columbia</th>
<th>Ontario</th>
<th>Quebec</th>
</tr>
</thead>
<tbody>
<tr>
<td>Charcoal activated - 7440-44-0</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>

Australia and Mexico
Occupational Exposure Limits for Australia and Mexico: Not determined

<table>
<thead>
<tr>
<th>Components</th>
<th>Australia</th>
<th>Mexico</th>
</tr>
</thead>
<tbody>
<tr>
<td>Charcoal activated 7440-44-0</td>
<td>None</td>
<td>2 mg/m³ TWA</td>
</tr>
</tbody>
</table>

Appropriate engineering controls

Engineering measures to reduce exposure:
Ensure adequate ventilation. Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit. Ensure that dust-handling systems (such as exhaust ducts, dust collectors, vessels, and processing equipment) are designed in a manner to prevent the escape of dust into the work area (i.e. there is no leakage from the equipment) It is recommended that all dust control equipment such as local exhaust ventilation and material transport systems involved in the handling of this product contain explosion relief vents or an explosion suppression system or an oxygen-deficient environment.

Individual protection measures, such as personal protective equipment

Personal Protective Equipment

Skin and body protection: Long sleeved clothing. Chemical resistant apron. Gloves.
Respiratory protection: Wear respirator with dust filter.
Hygiene measures: Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product. When using, do not eat, drink or smoke.

Product code: CH103
Product name: CHARCOAL, ACTIVATED, DARCO(R) G60, 100-325 MESH, POWDER
### 9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Odor: Odorless.</td>
<td>Taste</td>
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<tr>
<td>Formula: C</td>
<td>Flash point (°C): No data available</td>
<td>Flashpoint (°C/°F): No information available</td>
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<tr>
<td>Flash Point Tested according to: Not available</td>
<td>Lower Explosion Limit (%): No information available</td>
<td>Upper Explosion Limit (%): No information available</td>
</tr>
<tr>
<td>Autoignition Temperature (°C/°F): No information available</td>
<td>pH: No information available</td>
<td>Melting point/range(°C/°F): 3500°C/6332°F</td>
</tr>
<tr>
<td>Boiling point/range(°C/°F): No information available</td>
<td>Decomposition temperature(°C/°F): No information available</td>
<td>Bulk density: No information available</td>
</tr>
<tr>
<td>Specific gravity: 3.51</td>
<td>Vapor pressure @ 20°C (kPa): No information available</td>
<td>Density (g/cm³): No information available</td>
</tr>
<tr>
<td>Evaporation rate: No information available</td>
<td>Vapor density: No information available</td>
<td>VOC content (g/L): No information available</td>
</tr>
<tr>
<td>Odor threshold (ppm): No information available</td>
<td>Partition coefficient (n-octanol/water): No information available</td>
<td>Viscosity: No information available</td>
</tr>
<tr>
<td>Miscibility: No information available</td>
<td>Solubility: Insoluble in water</td>
<td></td>
</tr>
</tbody>
</table>

### 10. STABILITY AND REACTIVITY

#### Reactivity
- Reactive with oxidizing agents
- Reactive with strong acids
- Contact with strong oxidizers such as ozone, liquid oxygen, chlorine, chlorine trifluoride, ammonium nitrate, ammonium perchlorate, potassium peroxide, permanganate may result in rapid combustion
- At high temperature, a mixture of mercurous nitrate and carbon decomposes explosively
- Iodine pentoxide reacts explosively when warmed with carbon
- A combination of finely divided carbon with finely divided bromates (also chlorates, or iodates) of barium, calcium, magnesium, potassium, sodium or zinc will explode wity heat, percussion, and sometimes light friction
- Pulverized carbon reacts violently with nitric acid
- Zinc nitrate explodes when sprinkled on hot carbon
- Lead nitrate reacts with brilliant sparks when projected on red-hot carbon

#### Chemical stability
- Stability: Stable under recommended storage conditions
- Possibility of Hazardous Reactions: Hazardous polymerization does not occur

#### Conditions to avoid:
- Heat. Avoid dust formation. Dust may form explosive mixture in air. Fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard. Incompatible materials.

#### Incompatible Materials:
- Strong oxidizing agents. Strong acids.

#### Hazardous decomposition products:
- Carbon monoxide. Carbon dioxide.

**Product code:** CH103  **Product name:** CHARCOAL, ACTIVATED, DARCO(R) G60, 100-325 MESH, POWDER
### 11. TOXICOLOGICAL INFORMATION

#### Information on likely routes of exposure

**Principal Routes of Exposure:**
- Ingestion.
- Inhalation.

**Acute Toxicity**

#### Component Information

**Charcoal activated - 7440-44-0**
- **LD₅₀/oral/rat** = >10000 mg/kg Oral LD₅₀ Rat
- **LD₅₀/oral/mouse** = >5000 mg/kg
- **LD₅₀/dermal/rabbit** = No information available
- **LD₅₀/dermal/rat** = No information available
- **LC₅₀/inhalation/rat** = No information available
- **LC₅₀/inhalation/mouse** = No information available
- **Other LD₅₀ or LC₅₀ information** = >5000 mg/kg LD₅₀ Oral Dog

#### Product Information

- **LD₅₀/oral/rat** = VALUE- Acute Tox Oral = >10000mg/kg
- **LD₅₀/oral/mouse** = VALUE - Acute Tox Oral = >5000 mg/kg
- **LD₅₀/dermal/rabbit** = VALUE - Acute Tox Dermal = No information available
- **LD₅₀/dermal/rat** = VALUE - Acute Tox Dermal = No information available
- **LC₅₀/inhalation/rat** = VALUE-Vapor = No information available
- **LC₅₀/inhalation/mouse** = VALUE - Gas = No information available
- **VALUE - Dust/Mist** = No information available
- **LC₅₀/Inhalation/mouse** = VALUE-Vapor = No information available
- **VALUE - Gas** = No information available
- **VALUE - Dust/Mist** = No information available

#### Symptoms

**Skin Contact:**
- May cause skin irritation.
Eye Contact: May cause eye irritation.

Inhalation May cause irritation of respiratory tract.

Ingestion May cause aspiration pneumonitis, vomiting, decreased gastrointestinal transit time, gastrointestinal obstruction, constipation, a charcoal-containing empyma, intestinal perforation, charcoal deposits in the esophageal and gastric mucosa, rectal ulcer.

Aspiration hazard No information available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Chronic Toxicity Chronic skin exposure can result in clogging of hair follicles, rendering them black. Chronic inhalation can cause carbon particles to accumulate in the lungs. It may cause a pneumoconiosis called "Black Lung Disease" or "Coal Workers Pneumoconiosis". This is seen in coal workers, but no evidence has been found for the equivalent with occupational exposure to activated carbon (charcoal).

Sensitization: No information available

Mutagenic Effects: No information available

Carcinogenic effects: Not considered carcinogenic

<table>
<thead>
<tr>
<th>Components</th>
<th>ACGIH - Carcinogens</th>
<th>IARC</th>
<th>NTP</th>
<th>OSHA HCS - Carcinogens</th>
<th>Australia - Prohibited Carcinogenic Substances</th>
<th>Australia - Notifiable Carcinogenic Substances</th>
</tr>
</thead>
<tbody>
<tr>
<td>Charcoal activated</td>
<td>Not listed</td>
<td>Not listed</td>
<td>Not listed</td>
<td>Not listed</td>
<td>Not listed</td>
<td>Not listed</td>
</tr>
</tbody>
</table>

Reproductive toxicity No data is available

Reproductive Effects: No information available
Developmental Effects: No information available
Teratogenic Effects: No information available

Specific Target Organ Toxicity

STOT - single exposure No information available
STOT - repeated exposure No information available
Target Organs: No information available

12. ECOLOGICAL INFORMATION

Ecotoxicity

Ecotoxicity effects: No data available.

Persistence and degradability: No information available
Bioaccumulative potential: No information available
Mobility: No information available

Product code: CH103
Product name: CHARCOAL, ACTIVATED, DARCO(R) G60, 100-325 MESH, POWDER
13. DISPOSAL CONSIDERATIONS

Disposal Methods

Waste from residues / unused products:
Waste must be disposed of in accordance with Federal, State and Local regulation.

Contaminated packaging:
Empty containers should be taken for local recycling, recovery or waste disposal

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Charcoal activated</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>

14. TRANSPORT INFORMATION

DOT

UN-No: Not a DOT controlled material (United States).
Removed DOT regulation on 3/20/09. This carbon is steam activated. The following is an explanation for removing the DOT regulation
While you will find an entry for "Carbon, activated" in Table 172.101 of 49 CFR Hazardous Materials Regulations, that does not apply to ALL types of activated carbon. Under 173.124(b)(2) of 49 CFR you will find the definition of a self-heating material and a reference to the tests used for classification. NORIT lignite and bituminous based carbons consistently pass this test and therefore do not have to be classified as a Hazardous Material. There are basically two types of processes used in the manufacturing of activated carbon. One is called chemical activation and the other is called steam activation. While this is not addressed in 49 CFR the industry has determined that products made through steam activation will consistently pass the self-heating tests. Products made under the chemical activation process will not pass this test and therefore must be classified as hazardous. Interestingly, the International Maritime Dangerous Goods (IMDG) Code does reference the differences in production processes that CFR 49 ignores

Proper Shipping Name: No information available
Hazard Class: No information available
Subsidiary Risk: Not applicable
Packing Group: None
ERG No: No information available
Marine Pollutant: No data available
DOT RQ (lbs): No information available

TDG (Canada)

UN-No: Not Regulated
Proper Shipping Name: No information available
Hazard Class: No information available
Subsidiary Risk: No information available
Packing Group: No information available
Description: No information available

ADR

UN-No: Not Regulated
Proper Shipping Name: No information available
Hazard Class: No information available

Product code: CH103
Product name: CHARCOAL, ACTIVATED, DARCO(R) G60, 100-325 MESH, POWDER
14. TRANSPORT INFORMATION

Packing Group: No information available
Subsidiary Risk: No information available
Classification Code: No information available
Description: No information available
CEFIC Tremcard No: No information available

IMO / IMDG
UN-No: Not Regulated
Proper Shipping Name: No information available
Hazard Class: No information available
Subsidiary Risk: No information available
Packing Group: No information available
Description: No information available
IMDG Page: No information available
Marine Pollutant: No information available
MFAG: No information available
Maximum Quantity: No information available

RID
UN-No: Not Regulated
Proper Shipping Name: No information available
Hazard Class: No information available
Subsidiary Risk: No information available
Packing Group: No information available
Classification Code: No information available
Description: No information available

ICAO
UN-No: Not Regulated
Proper Shipping Name: No information available
Hazard Class: No information available
Subsidiary Risk: No information available
Packing Group: No information available
Description: No information available

IATA
UN-No: Not Regulated
Proper Shipping Name: No information available
Hazard Class: No information available
Subsidiary Risk: No information available
Packing Group: No information available
Description: No information available

15. REGULATORY INFORMATION

International Inventories

<table>
<thead>
<tr>
<th>Components</th>
<th>U.S. TSCA</th>
<th>KOREA KECL</th>
<th>Philippines (PICCS)</th>
<th>Japan ENCS</th>
<th>CHINA</th>
<th>Australia (AICS)</th>
<th>EINECS-No.</th>
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</thead>
<tbody>
<tr>
<td>Charcoal activated</td>
<td>Present</td>
<td>Present KE-04671</td>
<td>Present</td>
<td>Not present</td>
<td>Present</td>
<td>Present</td>
<td>Present 231-153-3</td>
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</tbody>
</table>

U.S. Regulations


Product code: CH103

Product name: CHARCOAL, ACTIVATED, DARCO(R) G60, 100-325 MESH, POWDER

9 / 11
Chemicals Known to the State of California to Cause Cancer:
This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

Chemicals Known to the State of California to Cause Reproductive Toxicity:
This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

<table>
<thead>
<tr>
<th>Components</th>
<th>Carcinogen</th>
<th>Developmental Toxicity</th>
<th>Male Reproductive Toxicity</th>
<th>Female Reproductive Toxicity</th>
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</thead>
<tbody>
<tr>
<td>Charcoal activated</td>
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<td>Not Listed</td>
<td>Not Listed</td>
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</tbody>
</table>

CERCLA/SARA

<table>
<thead>
<tr>
<th>Components</th>
<th>CERCLA - Hazardous Substances and their Reportable Quantities</th>
<th>Section 302 Extremely Hazardous Substances and TPQs</th>
<th>Section 302 Extremely Hazardous Substances and RQs</th>
<th>Section 313 - Chemical Category</th>
<th>Section 313 - Reporting de minimis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Charcoal activated</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
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U.S. TSCA

<table>
<thead>
<tr>
<th>Components</th>
<th>TSCA Section 5(a)2 - Chemicals With Significant New Use Rules (SNURS)</th>
<th>TSCA 8(d) - Health and Safety Reporting</th>
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</thead>
<tbody>
<tr>
<td>Charcoal activated</td>
<td>Not Applicable</td>
<td>Not Applicable</td>
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</tbody>
</table>

Canada

WHMIS hazard class:
Non-controlled

Charcoal activated
Uncontrolled product according to WHMIS classification criteria

Canada Controlled Products Regulation:
This product has been classified according to the hazard criteria of the CPR (Controlled Products Regulation) and the MSDS contains all of the information required by the CPR.

Inventory

<table>
<thead>
<tr>
<th>Components</th>
<th>Canada (DSL)</th>
<th>Canada (NDSL)</th>
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<tbody>
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<table>
<thead>
<tr>
<th>Components</th>
<th>CEPA Schedule I - Toxic Substances</th>
<th>CEPA - 2010 Greenhouse Gases Subject to Mandatory Reporting</th>
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<tbody>
<tr>
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<td>Not listed</td>
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EU Classification

S -phrase(s)
none

<table>
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<tr>
<th>Components</th>
<th>Classification</th>
<th>Concentration Limits:</th>
<th>Safety Phrases</th>
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<tbody>
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<td>Charcoal activated</td>
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</tbody>
</table>

Product code: CH103

Product name: CHARCOAL, ACTIVATED, DARCO(R) G60, 100-325 MESH, POWDER
The product is classified in accordance with Annex VI to Directive 67/548/EEC

Indication of danger:
None.

16. OTHER INFORMATION

Preparation Date: 4/13/2015
Revision Date: 4/13/2014
Prepared by: Sonia Owen

Disclaimer:
All chemicals may pose unknown hazards and should be used with caution. This Safety Data Sheet (SDS) applies only to the material as packaged. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this SDS. The physical properties reported in this SDS are obtained from the literature and do not constitute product specifications. Information contained herein does not constitute a warranty, whether expressed or implied, as to the safety, merchantability or fitness of the goods for a particular purpose. Spectrum Chemicals & Laboratory Products, Inc. assumes no responsibility for results obtained or for incidental or consequential damages, including lost profits, arising from the use of these data. No warranty against infringement of any patent, copyright or trademark is made or implied. It shall be the user's responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. While this SDS is based on technical data judged to be reliable, Spectrum assumes no responsibility for the completeness or accuracy of the information contained herein.

End of Safety Data Sheet
### Material Safety Data Sheet

**Charcoal, Activated, G-60**

**Catalog Number(s).** CH103

**CAS#** 7440-44-0

**RTECS** FL7243500

**TSCA** TSCA 8(b) inventory: Charcoal, Activated

**CI#** Not available.

**Manufacturer** SPECTRUM LABORATORY PRODUCTS INC.
14422 S. SAN PEDRO STREET
GARDENA, CA 90248

**Commercial Name(s)** DARCO G-60

**Synonym** Not available.

**Chemical Name** Charcoal, Activated

**Chemical Family** Not available.

**Chemical Formula** C

**Supplier** SPECTRUM LABORATORY PRODUCTS INC.
14422 S. SAN PEDRO STREET
GARDENA, CA 90248

### Section 2. Composition and Information on Ingredients

<table>
<thead>
<tr>
<th>Name</th>
<th>CAS #</th>
<th>TWA (mg/m³)</th>
<th>STEL (mg/m³)</th>
<th>CEIL (mg/m³)</th>
<th>% by Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Charcoal, Activated</td>
<td>7440-44-0</td>
<td>3.5</td>
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</tr>
</tbody>
</table>

**Exposure Limits**

**Toxicological Data on Ingredients**

Charcoal, Activated

- LD50: Not available.
- LC50: Not available.

### Section 3. Hazards Identification

**Potential Acute Health Effects**

Slightly hazardous in case of skin contact (irritant), of eye contact (irritant), of ingestion, of inhalation.

**Potential Chronic Health Effects**

- CARCINOGENIC EFFECTS: Not available.
- MUTAGENIC EFFECTS: Not available.
- TERATOGENIC EFFECTS: Not available.
- DEVELOPMENTAL TOXICITY: Not available.

The substance is toxic to mucous membranes.

The substance may be toxic to lungs.

Repeated or prolonged exposure to the substance can produce target organs damage.

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**Continued on Next Page**
### Section 4. First Aid Measures

| Eye Contact | Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention if irritation occurs. |
| Skin Contact | Wash with soap and water. Cover the irritated skin with an emollient. Get medical attention if irritation develops. |
| Serious Skin Contact | Not available. |
| Inhalation | If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention. |
| Serious Inhalation | Evacuate the victim to a safe area as soon as possible. Loosen tight clothing such as a collar, tie, belt or waistband. Seek medical attention. |
| Ingestion | Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If large quantities of this material are swallowed, call a physician immediately. Loosen tight clothing such as a collar, tie, belt or waistband. |
| Serious Ingestion | Not available. |

### Section 5. Fire and Explosion Data

| Flammability of the Product | May be combustible at high temperature. |
| Auto-Ignition Temperature | 452°C (845.6°F) |
| Flash Points | Not available. |
| Flammable Limits | Not available. |
| Products of Combustion | Not available. |
| Fire Hazards in Presence of Various Substances | Slightly flammable to flammable in presence of open flames and sparks, of heat. Non-flammable in presence of shocks. |
| Fire Fighting Media and Instructions | SMALL FIRE: Use DRY chemical powder. LARGE FIRE: Use water spray, fog or foam. Do not use water jet. |
| Special Remarks on Fire Hazards | Not available |
| Special Remarks on Explosion Hazards | Material in powder form, capable of creating a dust explosion (forming explosive mixtures in air) when exposed to heat, flame, or ammonium nitrate + heat. ammonium tetrachloride at 240 C, bromates, Ca(OCl)2, chlorates, Cl2, (Cl2 + Cr(OCl)2), ClO, F2, iodates, IO5, (Pb(NO3)2, HgNO3, HNO3, (oils + air), (potassium + air), Na2S, Zn(NO3)2. |

### Section 6. Accidental Release Measures

| Small Spill | Use appropriate tools to put the spilled solid in a convenient waste disposal container. |
| Large Spill | Spontaneously combustible solid. Stop leak if without risk. Absorb with an inert material and put the spilled material in an appropriate waste disposal. Obtain advice on use of water as spilled material may react with it. Do not touch spilled material. Prevent entry into sewers, basements or confined areas; dike if needed. Eliminate all ignition sources. Cover with wet earth, sand or other non-combustible material. Call for assistance on disposal. Be careful that the product is not present at a concentration level above TLV. Check TLV on the MSDS and with local authorities. |

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**Continued on Next Page**
### Section 7. Handling and Storage

**Precautions**
Keep away from heat. Keep away from sources of ignition. Ground all equipment containing material. Do not breathe dust. Keep away from incompatibles such as oxidizing agents, metals, acids.

**Storage**
Store in a segregated and approved area. Keep in a cool and ventilated area away from combustible materials. Keep container in a cool, well-ventilated area. Keep container tightly closed and sealed until ready for use. Avoid all possible sources of ignition (spark or flame).

### Section 8. Exposure Controls/Personal Protection

**Engineering Controls**
Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

**Personal Protection**
Safety glasses. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Gloves.

**Personal Protection in Case of a Large Spill**
Splash goggles. Full suit. Dust respirator. Boots. Gloves. A self contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

**Exposure Limits**
- TWA: 3.5 (mg/m³) from ACGIH (TLV) [United States]
- TWA: 4 (mg/m³) [United Kingdom (UK)] Inhalation Respirable.
- TWA: 10 (mg/m³) [United Kingdom (UK)] Inhalation Total.
- TWA: 2 (mg/m³) [Canada] Inhalation Respirable.

Consult local authorities for acceptable exposure limits.

### Section 9. Physical and Chemical Properties

**Physical state and appearance**
Solid. (Solid powder.)

**Odor**
Odorless.

**Molecular Weight**
12.01 g/mole

**pH (1% soln/water)**
Not applicable.

**Color**
Black

**Boiling Point**
Not available.

**Melting Point**
3500°C (6332°F)

**Critical Temperature**
6810°C (12290°F)

**Specific Gravity**
3.51 (Water = 1)

**Vapor Pressure**
Not applicable.

**Vapor Density**
Not available.

**Volatility**
Not available.

**Odor Threshold**
Not available.

**Water/Oil Dist. Coeff.**
Not available.

**Ionicity (in Water)**
Not available.

**Dispersion Properties**
Not available.

**Solubility**
Insoluble in cold water, hot water.

### Section 10. Stability and Reactivity Data

**Stability**
The product is stable.

**Instability Temperature**
Not available.

**Conditions of Instability**
Heat, ignition sources (flames, sparks), air, incompatible materials

**Incompatibility with various substances**
Reactive with oxidizing agents, metals, acids.

**Corrosivity**
Non-corrosive in presence of glass.

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*Continued on Next Page*
**Charcoal, Activated, G-60**

| Special Remarks on Reactivity | Incompatible with air, unsaturated oils, 2-Nitrobenzaldehyde, strong oxidizers such as fluorine, chlorine trifluoride, and potassium peroxide. |
| Special Remarks on Corrosivity | Not available. |
| Polymerization | Will not occur. |

### Section 11. Toxicological Information

| Routes of Entry | Inhalation. Ingestion. |
| Toxicity to Animals | LD50: Not available. LC50: Not available. |
| Chronic Effects on Humans | Causes damage to the following organs: mucous membranes. May cause damage to the following organs: lungs. |
| Other Toxic Effects on Humans | Slightly hazardous in case of skin contact (irritant), of ingestion, of inhalation. |

| Special Remarks on Toxicity to Animals | Not available. |
| Special Remarks on Chronic Effects on Humans | May cause adverse reproductive effects. |
| Special Remarks on other Toxic Effects on Humans | Acute Potential Health Effects: Skin: May cause skin irritation. Eyes: May cause eye irritation. Inhalation: May cause respiratory tract irritation. Ingestion: May cause aspiration pneumonitis, vomiting, decreased gastrointestinal transit time, gastrointestinal obstruction, constipation, a charcoal-containing empyema, intestinal perforation, charcoal deposits in the esophageal and gastric mucosa, rectal ulcer. Chronic Potential Health Effects: Skin: Chronic skin exposure can result in clogging of hair follicles, rendering them black. Inhalation: Chronic inhalation can cause carbon particles to accumulate in the lungs. It may cause a pneumoconiosis called “Black Lung Disease” or “Coal Workers Pneumoconiosis”. This is seen in coal workers, but no evidence has been found for the equivalent with occupational exposure to activated carbon (charcoal). |

### Section 12. Ecological Information

| Ecotoxicity | Not available. |
| BOD5 and COD | Not available. |
| Products of Biodegradation | Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise. |
| Toxicity of the Products of Biodegradation | The product itself and its products of degradation are not toxic. |

| Special Remarks on the Products of Biodegradation | Not available. |

### Section 13. Disposal Considerations

| Waste Disposal | Waste must be disposed of in accordance with federal, state and local environmental control regulations. |

**Continued on Next Page**
Not a DOT controlled material (United States).

DOT (Pictograms)

Not applicable.

Special Provisions for Transport

Removed DOT regulation. This carbon is steam activated. The following is an explanation for removing the DOT regulation:

While you will find an entry for "Carbon, activated" in Table 172.101 of 49 CFR Hazardous Materials Regulations, that does not apply to ALL types of activated carbon. Under 173.124(b)(2) of 49 CFR you will find the definition of a self-heating material and a reference to the tests used for classification. NORIT lignite and bituminous based carbons consistently pass this test and therefore do not have to be classified as a Hazardous Material. There are basically two types of processes used in the manufacturing of activated carbon. One is called chemical activation and the other is called steam activation. While this is not addressed in 49 CFR the industry has determined that products made through steam activation will consistently pass the self-heating tests. Products made under the chemical activation process will not pass this test and therefore must be classified as hazardous. Interestingly, the International Maritime Dangerous Goods (IMDG) Code does reference the differences in production processes that CFR 49 ignores.

Section 15. Other Regulatory Information and Pictograms

Federal and State Regulations

Rhode Island RTK hazardous substances: Charcoal, Activated
TSCA 8(b) inventory: Charcoal, Activated

California Proposition 65

Warnings

California prop. 65: This product contains the following ingredients for which the State of California has found to cause cancer which would require a warning under the statute: No products were found.
California prop. 65: This product contains the following ingredients for which the State of California has found to cause birth defects which would require a warning under the statute: No products were found.

Other Regulations

EINECS: This product is on the European Inventory of Existing Commercial Chemical Substances (EINECS No. 231-153-3).
Canada: Listed on Canadian Domestic Substance List (DSL).
China: Listed on National Inventory.
Japan: Not listed on National Inventory (ENCS).
Korea: Listed on National Inventory (KECI).
Philippines: Listed on National Inventory (PICCS).
Australia: Listed on AICS.

Other Classifications

WHMIS (Canada) Not controlled under WHMIS (Canada).
DSCL (EEC) This product is not classified according to the EU regulations.

HMIS (U.S.A.)

<table>
<thead>
<tr>
<th>Health Hazard</th>
<th>Fire Hazard</th>
<th>Reactivity</th>
<th>Personal Protection</th>
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National Fire Protection Association (U.S.A.)

Flammability

Reactivity

Specific hazard

WHMIS (Canada) (Pictograms)

DSCL (Europe) (Pictograms)

Not applicable.

Continued on Next Page
### Protective Equipment

- Gloves.
- Lab coat.
- Dust respirator. Be sure to use an approved/certified respirator or equivalent.
- Safety glasses.

### Section 16. Other Information

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<td>References</td>
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<td>Other Special Considerations</td>
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Validated by Sonia Owen on 8/4/2011.  
Verified by Sonia Owen.  

### Notice to Reader

All chemicals may pose unknown hazards and should be used with caution. This Material Safety Data Sheet (MSDS) applies only to the material as packaged. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this MSDS. It shall be the user's responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. While this MSDS is based on technical data judged to be reliable, Spectrum Quality Products, Inc. assumes no responsibility for the completeness or accuracy of the information contained herein.