SAFETY DATA SHEET
ACCORDING TO THE GLOBALLY HARMONIZED SYSTEM
OF CLASSIFICATION AND LABELING OF CHEMICALS (GHS)

CARBON BLACK

1. PRODUCT AND COMPANY IDENTIFICATION

1.1 Product
Chemical Name: Carbon Black
Chemical Family: Carbon
CAS Number: 1333-86-4
Product Form: Powder or Beads

1.2 Manufacturer
Columbian Chemicals Company
1800 West Oak Commons Court
Marietta, Georgia 30062
U.S.A.

Telephone Number: +1 (800) 235-4003 or +1 (770) 792-9400
(Safety, Health and Environmental Affairs)

1.3 Regulation (EC) No. 1907/2006
REACH Registration Number: 01-211938422-32-XXXX

1.4 Emergency Telephone Numbers

1.4.1 Asia
Columbian China +86-536-532-8742
Columbian Korea +82-61-688-3357

1.4.2 Europe
Hungary +36-80-201-199 or +36-14-766-464
(Health Toxicological Information Service of the National Institute of Chemical Safety)
Spain (National Institute of Toxicology) +34-915-620-420
Columbian Germany +49-511-959-350
Columbian Hungary +36-49-544-000
Columbian Italy +39-0321-798-211
Columbian Spain +34-942-503-030

1.4.3 North America
Canada +1-(613)-996-6666 CANUTEC
U.S.A. +1-(800)-424-9300 CHEMTREC
Columbian Canada +1-905-544-3343
Columbian Ulysses, Kansas +1-620-356-3151 extension 25
Columbian Centerville, Louisiana +1-337-836-5641 extension 260

1.4.4 South America
Columbian Brazil, Cubatão, São Paulo +55-13-3362-7100
Columbian Brazil, Camaçari, Bahia +55-71 3616-1100

Use of substance/preparation:
Additive for plastic and rubber; Pigment; Chemical reagent,
Additive for batteries, refractories, various.

Trade Name:
Raven® Powder or Beads including Ultra® versions of these grades

Product Name:

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<th>1040</th>
<th>1060</th>
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</tbody>
</table>

Revised 5 June 2012
2. HEALTH, ENVIRONMENTAL & PHYSICAL HAZARDS AND CLASSIFICATIONS

2.1 Globally Harmonized System of Classification and Labelling GHS Hazard Classification

Not a hazardous substance or preparation according to the Global Harmonized System (GHS).

In 1995 IARC concluded, “There is inadequate evidence in humans for the carcinogenicity of carbon black.” Based on rat inhalation studies IARC concluded that there is “sufficient evidence in experimental animals for the carcinogenicity of carbon black”. IARC’s overall evaluation was that “Carbon black is possibly carcinogenic to humans (Group 2B).” This conclusion was based on IARC’s guidelines, which require such a classification if one animal species exhibits carcinogenicity in two or more studies. Lung tumors in rats are the result of exposure under “lung overload” conditions. The development of lung tumors in rats is specific to this species. Mouse and hamster showed no carcinogenicity in similar studies.

In 2006 IARC re-affirmed its 1995 classification of carbon black as Group 2B (possibly carcinogenic to humans).

Overall, as a result of the detailed epidemiological investigations, no causative link between carbon black exposure and cancer risk in humans has been demonstrated. This view is consistent with the IARC evaluation in 2006. Furthermore, several epidemiological and clinical studies of workers in the carbon black production industries show no evidence of clinically significant adverse health effects due to occupational exposure to carbon black. No dose response relationship was observed in workers exposed to carbon black.

Applying the rules of the Globally Harmonized System of Classification and Labelling (GHS, e.g. UN ‘Purple Book’, EU CLP Regulation) the results of repeated dose toxicity and carcinogenicity studies in animals do not lead to classification of Carbon Black for Specific Target Organ Toxicity (Repeated exposure) and carcinogenicity. UN GHS says, that even if adverse effects are seen in animal studies or in-vitro tests, no classification is needed if the mechanism or mode of action is not relevant to humans. The European CLP Regulation also mentions, that no classification is indicated if the mechanism is not relevant to humans. Furthermore, the CLP guidance on classification and labelling states, that “lung overload” in animals is listed under mechanism not relevant to humans.

<table>
<thead>
<tr>
<th>GHS Symbol</th>
<th>NOT APPLICABLE</th>
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<tbody>
<tr>
<td>GHS Signal Words</td>
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</tr>
<tr>
<td>GHS Hazard Statements</td>
<td>NOT APPLICABLE</td>
</tr>
<tr>
<td>GHS Precautionary Statements</td>
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</table>

2.2 Other Hazard Classifications

2.2.1 Brazil Not classified as hazardous substances under the Note 1 of the “Portaria ANTT 420 e Provisão Especial N° 223”, Classe 4.2.

2.2.2 Canada This material is classified as D2A under Canadian Worker Hazardous Materials Information System (WHMIS) criteria.

2.2.3 European Union Not a hazardous substance or preparation according to the Global Harmonized System (GHS), see Section 2.1.

2.2.4 United States Classified as hazardous by definition under OSHA 29 CFR 1910.1200 (all chemicals that have been assigned a Permissible Exposure Limit under 29 CFR 1910.1000 are to be considered hazardous).

2.3 Most Important Hazards

A black, odorless, insoluble, powder that can burn or smolder at temperatures greater than 572 °F (>300 ºC). Hazardous products of decomposition can include carbon monoxide, carbon dioxide, and oxides of sulfur. May cause reversible mechanical irritation to the eyes and respiratory tract especially at concentrations above the occupational exposure limit. Some grades of carbon black are sufficiently electrically non-conductive to allow a build-up of static charge during handling. Take measures to prevent the build-up of electrostatic charge.

2.4 Routes of Exposure Skin, Eye, Inhalation

2.5 Potential Health Effects

2.5.1 Inhalation Temporary discomfort to upper respiratory tract may occur due to mechanical irritation when exposures are well above the occupational exposure limit. Long-term exposure below the current occupational exposure limit of 3.5 mg/m³ may result in a small loss in one aspect of lung function (FEV1).

2.5.2 Acute Ingestion No evidence of adverse effects from available data.

2.5.4 Acute skin May cause mechanical irritation, soiling, and skin drying.

2.5.5 Sensitization No cases of sensitization in humans have been reported.

2.5.6 Carcinogenicity IARC listed; Group 2B (possibly carcinogenic to humans). Not listed as a carcinogen by NTP, ACGIH, OSHA or the European Union. There are no known human carcinogenic effects related to the PAH content of carbon blacks. Recent research has shown that the PAH content of carbon blacks is not released in biological fluids and thus not available for biological activity.

2.6 Potential Environmental Effects No significant environmental hazards are associated with carbon black release to the environment. Carbon black is not soluble in water. See Section 12.
3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Composition  
Carbon Black (amorphous) 100%

3.2 Chemical formula  
C

3.3 CAS number  
1333-86-4

3.4 EINECS number  
215-609-9

4. FIRST-AID MEASURES

4.1 Inhalation  
Take affected persons into fresh air. If necessary, restore normal breathing through standard first aid measures.

4.2 Skin  
Wash skin with mild soap and water. If symptoms develop, seek medical attention.

4.3 Eye  
Rinse eyes thoroughly with large volumes of water keeping eyelids open. If symptoms develop, seek medical attention.

4.4 Ingestion  
Do not induce vomiting. If conscious, give several glasses of water. Never give anything by mouth to an unconscious person.

4.5 Note to physicians  
Treat symptomatically.

5. FIRE-FIGHTING MEASURES

5.1 Extinguishing Media  
Use foam, carbon dioxide (CO\(_2\)), dry chemical, or water fog. A fog spray is recommended if water is used. 
DO NOT USE HIGH PRESSURE WATER STREAM as this may spread burning powder (burning powder will float).

5.2 Special Exposure Hazards  
It may not be obvious that carbon black is burning unless the material is stirred and sparks are apparent. Carbon black that has been on fire should be observed closely for at least 48 hours to ensure no smoldering material is present. Products of combustion include carbon monoxide (CO), carbon dioxide (CO\(_2\)), and oxides of sulfur.

5.3 Protection of Firefighters  
Wear full protective fire fighting gear including self-contained breathing apparatus (SCBA). WET CARBON BLACK PRODUCES VERY SLIPPERY WALKING SURFACES.

6. ACCIDENTAL RELEASE MEASURES

NOTE: WET CARBON BLACK PRODUCES SLIPPERY WALKING SURFACES.

6.1 Personal Precautions  
Wear appropriate personal protective equipment and respiratory protection. See Section 8.

6.2 Environmental Precautions  
Carbon black poses no significant environmental hazards. As a matter of good practice, minimize contamination of sewage water, soil, groundwater, drainage systems, or bodies of water.

6.3 Methods for Cleaning up  
Small spills should be vacuumed when possible. Dry sweeping is not recommended. A vacuum equipped with HEPA (high efficiency particulate air) filtration is recommended. If necessary, light water spray will reduce dust for dry sweeping. Large spills may be shoveled into containers. See Section 13.

6.4 Methods for containment  
In the US, Carbon Black is not a hazardous substance under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA, 40 CFR 302), or the Clean Water Act (40 CFR 116), or a hazardous air pollutant under the Clean Air Act Amendments of 1990 (CAA 40 CFR).

7. HANDLING AND STORAGE

7.1 Handling  
Avoid dust exposures above the occupational exposure limit. Wash exposed skin daily. Use engineering controls to limit exposures to below the occupational exposure limits. Fine dust may cause electrical shorts and is capable of penetrating electrical equipment unless tightly sealed. If hot work (welding, torch cutting, etc.) is required the immediate work area must be cleared of carbon black product and dust.

7.2 Storage  
Store in a dry place away from ignition sources and strong oxidizers. Before entering closed vessels and confined spaces containing carbon black test for adequate oxygen, flammable gases and potential toxic air contaminants (e.g. CO). Follow safe practices when entering confined spaces. Carbon black is not classifiable as a Division 4.2 self-heating substance under the UN test criteria. However, these criteria are volume dependent, i.e., the auto-ignition temperature decreases with increasing volume. This classification may not be appropriate for large volume storage containers.
8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Exposure Limit Values

<table>
<thead>
<tr>
<th>Source</th>
<th>DNEL/DMEL</th>
<th>US ACGIH - TLV</th>
<th>US OSHA - PEL</th>
<th>Australia</th>
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<tr>
<td>DNEL/DMEL values:</td>
<td>2.0 mg/m³</td>
<td>3.0 mg/m³</td>
<td>3.5 mg/m³</td>
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<tr>
<td>inhalable, respiroable</td>
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<td>inhalable TWA</td>
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<td>US ACGIH - TLV:</td>
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</table>

8.2 Engineering Controls

Use process enclosures and/or exhaust ventilation to keep airborne dust concentrations below the occupational exposure limit.

8.3 Personal Protective Equipment (PPE)

8.3.1 Respiratory

Approved particulate respirators should be used where airborne concentrations are expected to exceed occupational exposure limits.

8.3.2 Hand Protection

Wash hands and other exposed skin with mild soap. Use of a barrier cream may help to prevent skin drying. General protective gloves may be used to protect hands from carbon black soiling.

8.3.3 Eye Protection

Wear safety glasses or goggles.

8.3.4 Skin Protection

Wear general protective clothing to minimize skin contact. Work clothes should not be taken home and should be washed daily.

8.3.5 General Hygiene Considerations

Emergency eyewash and safety shower should be in close proximity. Wash hands and face thoroughly with mild soap before eating and drinking.

9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
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<td>Appearance</td>
<td>powder or pellet</td>
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<td>Color</td>
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<tr>
<td>Odor</td>
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<td>Molecular formula</td>
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<td>Molecular weight (as carbon)</td>
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<td>Boiling point/range</td>
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<tr>
<td>Vapor pressure</td>
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<tr>
<td>Density (20 ºC)</td>
<td>1.7 – 1.9 g/cm³</td>
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<tr>
<td>Bulk density</td>
<td>Pellets: 1.25-4.0 lb/ft³, 20-680 kg/m³</td>
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<tr>
<td></td>
<td>Powder (fluffy): 20-380 kg/m³</td>
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<td>Solubility</td>
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<td>Minimum Ignition Temperature</td>
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<td>BAM Furnace</td>
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<td>Godbert-Greenwald Furnace</td>
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<td>Burn Rate</td>
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<td></td>
<td>&gt; 1 kJ</td>
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</table>
10. STABILITY AND REACTIVITY

10.1 Stability Stable under normal ambient conditions; decomposition: > 300 °C (> 572 °F).

10.2 Conditions to avoid Prevent exposure to high temperatures > 300 °C (> 572 °F) and open flames.

10.3 Materials to avoid Strong oxidizers such as chlorates, bromates, and nitrates.

10.4 Hazardous decomposition products Carbon monoxide, carbon dioxide, organic products of decomposition, oxides or sulfur (sulfoxides) form if heated above decomposition temperature.

10.5 Hazardous polymerization Will not occur

10.6 Mechanical Sensitivity (shock) Not sensitive to mechanical impact.

10.7 Static Discharge Effects Take precautionary measures against static discharges. Avoid dust formation. All metal parts of the mixing and processing equipment must be earthed/grounded. When transferring material at locations where flammable gases or vapours can be present, ensure that all equipment is electrically earthed/grounded before beginning transfer operations.

11. TOXICOLOGICAL INFORMATION

11.1 Acute toxicity

- Acute oral toxicity LD50 (rat), > 8000 mg/kg
- Primary irritation
  - skin (rabbit) non-irritative, index score 0.6/8 (4.0 = severe edema)
  - eye (rabbit) non-irritative, Draize score 10-17/110 (100 maximally irritating)
- Sensitization No evidence of sensitization was found in animals.
  - No cases of sensitization in humans have been reported.

11.2 Subchronic toxicity

- Rat, inhalation, duration 90 days, Target organ: lungs Effect: inflammation, hyperplasia, fibrosis
- NOEL = 1 mg/m³

11.3 Chronic toxicity

- Rat, oral, duration 2 years Effect: no tumors
- Mouse, oral, duration 2 years Effect: no tumors
- Mouse, dermal, duration 18 months Effect: no skin tumors
- Rat, inhalation, duration 2 years Effect: inflammation, fibrosis, tumors
- Target organ: lungs
- Mouse/hamster, inhalation, duration 2 y. Target organ: lungs No tumors

Note: Effects in the rat lung are considered to be related to the “lung overload phenomenon”¹,³,⁶-⁹ rather than to a specific chemical effect of carbon black itself in the lung particles. These effects in rats have been reported in many studies on other poorly soluble inorganic particles.

11.4 Carcinogenicity Classification

11.4.1 GHS Not a hazardous substance or preparation according to the Global Harmonized System (GHS). See section 2.1.

11.4.2 IARC In 1995 IARC concluded, “There is inadequate evidence in humans for the carcinogenicity of carbon black.” Based on rat inhalation studies IARC concluded that there is, “sufficient evidence in experimental animals for the carcinogenicity of carbon black,” IARC’s overall evaluation was that, “Carbon black is possibly carcinogenic to humans (Group 2B).” This conclusion was based on IARC’s guidelines, which require such a classification if one species exhibits carcinogenicity in two or more studies. IARC performed another review in 2006, and again classified carbon black as possibly carcinogenic to humans (Group 2B). In its 1987 review IARC concluded, “There is sufficient evidence in experimental animals for the carcinogenicity of carbon black extracts.” Carbon black extracts are classified as, possibly carcinogenic to humans (Group 2B).

11.4.3 NTP Carbon black is not designated a carcinogen by the U.S. National Toxicology Program (NTP), the U.S. Occupational Safety and Health Administration (OSHA) or the European Union (EU).

11.4.4 ACGIH The American Conference of Governmental Industrial Hygienists classifies carbon black as A4, Not Classifiable as a Human Carcinogen.

11.4.5 NIOSH The U.S. National Institute of Occupational Safety and Health (NIOSH) 1978 criteria document on carbon black recommends that only carbon blacks with PAH contaminant levels greater than 0.1% require the measurement of PAHs in air. As some PAHs are possible human carcinogens, NIOSH recommends an exposure limit of 0.1 mg/m³ for PAHs in air, measured as the cyclohexane-extractable fraction.
11.5 Specific Target Organ Toxicity Classification (STOT)

Inhalation studies with the rat showed lung effects (see Section 11.2 and 11.3), these effects are believed to be the effects of “lung overload” \(^1\) and these effects are believed to be specific to the species. In addition, the European CLP Regulation states that no classification is necessary if the mechanism is not relevant to humans. \(^4\) Also, the CLP Guidance on classification and labeling states that the “lung overload” mechanism is not relevant to humans. \(^4\) Therefore, no STOT, Repeated Exposure classification is made.

11.6 Sensitization

No animal data is available. No cases in humans have been reported.

11.7 Mutagenic Effects and Germ Cell Mutagenicity

In an experimental investigation, mutational changes in the hprt gene were reported in alveolar epithelial cells in the rat following inhalation exposure to carbon black. This observation is believed to be rat specific and a consequence of “lung overload” which led to chronic inflammation and release of genotoxic oxygen species. This mechanism is considered to be a secondary genotoxic effect and thus, carbon black itself would not be considered to be mutagenic.

Carbon black is not suitable to be tested in bacterial (Ames test) and other in vitro systems because of its insolubility in aqueous solutions. When tested, however, results for carbon black showed no mutagenic effects. Organic solvent extracts of carbon black can, however, contain traces of polycyclic aromatic hydrocarbons (PAHs). A study to examine the bioavailability of these PAHs showed that PAHs are very tightly bound to carbon black and not bioavailable. \(^5\)

11.8 Reproductive and Teratogenic Effects

No experimental studies on effects of carbon black on fertility and reproduction have been located. However, based on toxicokinetic data, carbon black is deposited in the lungs and based on its specific physicochemical properties (insolubility, low absorption potential), it is not likely to distribute in the body to reach reproductive organs, embryo and/or foetus under in vivo conditions. Therefore, no adverse effects of carbon black to fertility/reproduction or to foetal development are expected. No effects have been reported in long-term animal studies.

11.9 Human Epidemiology

Results of epidemiological studies of carbon black production workers suggest that cumulative exposure to carbon black may result in small decrements in lung function, as measured by FEV1. A recent U.S. respiratory morbidity study suggested a 27 mL decline in FEV1 from a 1 mg/m\(^3\) (inhalable fraction) exposure over a 40-year period. An older European investigation suggested an exposure to 1 mg/m\(^3\) (inhalable fraction) of carbon black over a 40-year working-lifetime will result in a 48 mL decline in FEV1. In contrast, normal age related decline over a similar period of time would be approximately 1200 mL.

The relationship between symptoms and exposure to carbon black is less clear. In the U.S. study, 9% of the highest exposure group (in contrast to 5% of the unexposed group) reported symptoms consistent with chronic bronchitis. In the European study, methodological limitations in the administration of the questionnaire limit the drawing of definitive conclusions about symptoms. This study, however, indicated a link between carbon black and small opacities on chest films, with negligible effects on lung function.

A study on carbon black production workers in the UK \(^10\) found an increased risk of lung cancer in two of the five plants studied; however, the increase was not related to the dose of carbon black. Thus, the authors did not consider the increased risk in lung cancer to be due to carbon black exposure. A German study of carbon black workers at one plant \(^11-14\) found a similar increase in lung cancer risk but, like the 2001 UK study \(^10\), found no association with carbon black exposure. In contrast, a large US study \(^15\) of 18 plants showed a reduction in lung cancer risk in carbon black production workers. Based upon these studies, the February 2006 Working Group at IARC concluded that the human evidence for carcinogenicity was inadequate \(^1\).

Since this IARC evaluation of carbon black, Sorahan and Harrington \(^16\) re-analyzed the UK study data using an alternative exposure hypothesis and found a positive association with carbon black exposure in two of the five plants. The same exposure hypothesis was applied by Morfeld and McCunney \(^17-18\) to the German cohort; in contrast, they found no association between carbon black exposure and lung cancer risk and, thus, no support for the alternative exposure hypothesis used by Sorahan and Harrington \(^16\). Morfeld and McCunney \(^18\) applied a Bayesian approach to unravel the role of uncontrolled confounders and identified smoking and prior exposure to occupational carcinogens received before being hired in the carbon black industry as main causes of the observed lung cancer excess risk.

Overall, as a result of these detailed investigations, no causative link between carbon black exposure and cancer risk in humans has been demonstrated. This view is consistent with the IARC evaluation in 2006.

Several epidemiological and clinical studies of workers in the carbon black production industries show no evidence of clinically significant adverse health effects due to occupational exposure to carbon black.

No dose response relationship was observed in workers exposed to carbon black.
12. ECOLOGICAL DATA

Carbon black is substantially elemental carbon, inorganic and cannot be further biodegraded by microorganisms. It is inert and contains no functional or water-soluble groups. It cannot be further degraded by hydrolysis, light or by photodegradation in air or in surface water.

12.1 Aquatic toxicity

12.1.1 Acute algae toxicity
EC 50 (72 h) > 10,000 mg/L, Scenedesmus subspicatus, (OECD Guideline 201)
NOEC 50 > 10,000 mg/L, Scenedesmus subspicatus, (OECD Guideline 201)

12.1.2 Acute fish toxicity
LC50 (96 h) > 1000 mg/L, Brachydanio rerio (zebrafish), (OECD Guideline 203)

12.1.3 Acute water flea toxicity
EC50 (24 h) > 5600 mg/L, Daphnia magna (waterflea), (OECD Guideline 202)

12.2 Behavior in water treatment plants
Activated sludge, EC0 (3 h) > 800 mg/L. DEV L3 (TTC test)

12.3 Environmental fate
Carbon black is an inert solid, stable and insoluble in water or organic solvents. Its vapour pressure is negligible. Based on these properties it is expected that carbon black will not occur in air or water in relevant amounts. Also potential for distribution via water or air can be dismissed. The deposition in soil or sediments is therefore the most relevant compartment of fate in the environment.

12.4 Bioaccumulation
Potential bioaccumulation is not expected because of the physicochemical properties of the substance.

13. DISPOSAL CONSIDERATIONS

13.1 Product should be disposed in accordance with the regulations issued by the appropriate federal, provincial, state and local authorities.

Brazil
Considered as a Class IIA waste – not inert.

Canada
Not a hazardous waste under provincial regulations.

EU

U.S.
Not a hazardous waste under U.S. RCRA, 40 CFR 261.

13.2 Container/Packaging
Empty packaging must be disposed of in accordance with national and local laws.

14. TRANSPORT INFORMATION

Carbon blacks covered by this Safety Data Sheet are not restricted for transport, and are not considered to be “dangerous goods” by the following regulations.

- GEIPOT – Brazilian Ministry of Transport
- Canadian Transport of Dangerous Goods (TDG)
- European Carriage of Dangerous Goods by Rail (RID), by Road (ADR), or on the Rhine (ADNR)
- International Air Transport Association (IATA)
- International Civil Air Organization-Technical Instructions (ICAO-TI)
- International Maritime Dangerous Goods Code (IMDG)
- United Nations Recommendations on the Transport of Dangerous Goods
- United States Department of Transportation Hazardous Materials Regulations (DOT)
- GGVS and GGVE

Additional Information:
The International Carbon Black Association organised the testing of seven (7) ASTM reference carbon blacks according to the UN method, Self Heating Solids. All seven reference carbon blacks were found to be “Not a self-heating substance of Division 4.2”. The same carbon blacks were tested according to the UN method, Readily Combustible Solids, and found to be “Not a readily combustible solid of Division 4.1”; under current UN Recommendations on the Transport of Dangerous Goods.
Carbon black, CAS number 1333-86-4, appears on the following inventories:

- **Australia**: AICS (Australian Inventory of Chemical Substances)
- **Canada**: CEPA (Canadian Environmental Protection Act), Domestic Substance List (DSL).
- **China**: NEPA , Registration Certificate for Environmental Management on Import/Export of Chemicals: FC021105494
- **Europe (EU)**: EINECS (European Inventory of Existing Commercial Chemical Substances) EINECS-RN: 215-609-9.
- **Japan**: MITI (Ministry of International Trade and Industry) List of Existing Chemicals Substances. 10-3074/5-3328 and 10-3073/5-5222 (Section-Structure No./Class Reference No.)
- **Korea**: TCC-ECL (Toxic Chemical Control Law Existing Chemical List). KE-04682
- **Philippines**: Inventory of Chemical Substances (PICCS) under the Environment Management Bureau, Department of Environment and Natural Resources.
- **Taiwan**: Notified to the Authorities for inclusion into the Taiwanese inventory.
- **New Zealand**: Hazardous Substances and New Organisms Act (HSNO), approval Code HSR002801 (New Zealand Inventory of Chemicals)
- **United States**: SARA (Super Fund Amendments and Reauthorization Act), Sections 311/312 apply if carbon black is present at any one time in amounts equal to or greater than 10,000 pounds. Under Section 311/312 – MSDS requirements, carbon black is determined to be hazardous according to the following EPA hazard categories:
  - Immediate health hazard: No
  - Delayed (chronic) health hazard: Yes
  - Sudden release of pressure hazard: No
  - Reactive hazard: No
- **Germany**: WGK (Water Endangering Class) nwg (not water/endangering): 1742
- **Switzerland**: Giftklasse (Poison Class) Toxic Category tested and found to be not toxic: G-8938

**U.S.:** Carbon black is not a hazardous substance under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA, 40 CFR 302), or the Clean Water Act (40 CFR 116), or a hazardous air pollutant under the Clean Air Act Amendments of 1990 (CAA 40 CFR). Carbon black is on the Chemical Hazard Information Profile (CHIP) list under TSCA.

**California Safe Drinking Water and Toxics Enforcement Act of 1986 (Proposition 65):** "Carbon black (airborne, unbound particles of respirable size)" is a California Proposition 65 listed substance. Please note that all three listing qualifiers (airborne, unbound (not bound within a matrix), and respirable size (10 micrometers or less in diameter)) must be met for this substance to be considered a Proposition 65 substance.

**US State Right To Know Standards**

Carbon black CAS # 1333-86-4 is listed or regulated under the right to know standards in the states of New Jersey, Pennsylvania and Massachusetts. For Louisiana: Right-to-know legislation requires inventory reporting through Community Right-to-Know when the quantity of carbon black exceeds 500 pounds on any given day. Spills or releases beyond the site of the facility of greater than 5,000 pounds are required to be immediately reported to the state Emergency Response Commission via the Office of the State Police, Transportation and Environmental Safety Section, Hazardous Material Hotline, (504) 925-6596 (collect calls accepted 24 hours a day).

**US Coalition of NorthEastern Governors (CONEG) Metals List**

This product meets the CONEG Source Reduction Council limits for the sum of the levels of lead, cadmium, mercury and hexavalent chromium of less than 100 parts per million by weight.
16. OTHER INFORMATION

NFPA (National Fire Protection Association) Rating:  

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<th>Health</th>
<th>Flammability</th>
<th>Reactivity</th>
<th>HMIS® III (Hazardous Materials Identification System®) Rating:</th>
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HMIS® is a registered trademark of the National Paint and Coatings Association.

References:


The carbon black industry continues to sponsor research designed to identify adverse health effects from long term exposure to carbon black. This SDS is updated as new health and safety information becomes available.

The data and information presented herein corresponds to the present state of our knowledge and experience and is intended to describe our product with respect to possible occupational health and safety concerns. The user of this product has sole responsibility to determine the suitability of the product for any use and manner of use intended, and for determining the regulations applicable to such use in the relevant jurisdiction. This SDS is updated on a periodic basis in accordance with applicable health and safety standards.
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