rCB

Developed by CFI CARBON PRODUCTS

Safety Data Sheet SDS

Section 1: Identification

Product Identifier: TVR Carbon Residue TVR2
Synonyms: Industrial Carbon
Trade Name: Recycled Carbon Black 325 (rCB 325)
Recommended use: Use of the substance/mixture: Used as a filler or colorant in rubber or plastic compounds.
Manufacturer:

Coal Fillers Incorporated
271 St. Clairs Crossing
Bluefield, VA 24605

Emergency Telephone Number: (276) 322-4675

Section 2: Hazard(s) Identification

Classification:

Industrial carbon has been evaluated as not a hazardous substance or preparation under GHS.
GHS-US Labeling or Hazardous pictograms (GHS-US): None required.
Signal Word (GHS-US): Not applicable.
Hazardous Statement: Not required.

Precautionary Statements (GHS-US):

P101- If medical advice is needed, have product label or SDS at handP103 - Read label before use.
P201- Obtain special instructions before use.
P202 - Do not handle until all safety precautions have been read and understood.
P233 - Keep container tightly closed when not in use.
P261- Avoid breathing dust.
P264 · Wash hands, forearms, and exposed areas thoroughly after handling.
P270 - Do not eat, drink or smoke when using this product. P271- Use only in a well-ventilated area.
P285 - In case of inadequate ventilation, wear respiratory protection.
P280 - Wear eye protection, face protection, protective gloves, protective clothing.
P302+P352 IF ON SKIN: Wash with plenty of soap and water.
P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P308+P313 - If exposed or concerned: Get medical advice/attention.
P314 - Get medical advice and attention if you feel unwell.
P332+P313 - If skin irritation occurs: Get medical advice/attention.
P337+P313 - lf eye irritation persists: Get medical advice/attention.
P362+P364 ·Takeoff contaminated clothing and wash it before reuse.
P391- Collect spillage.
P404- Store in closed containers.
PSOl - Dispose of contents/container according to local, regional, national, and

ISO 9001 SRI CERTIFIED

Section 2: Hazard(s) Identification, cont.

international regulations.

Other Hazards:

Emergency Overview: A black odorless powder bead which can burn or smolder at temperatures greater than 572 degrees F (300 C). Dust may cause mechanical irritation to the eyes and respiratory tract especially at concentrations above the PE L's. Take precautionary measures against the build-up of static discharges.

No significant environmental hazards are associated with carbon black release into the environment. Carbon black is not soluble in water. (See Section 12)

Unknown Acute Toxicity (GHS-US): No data available.

Section 3: Composition / Information of Ingredients

Components	CAS Numbers	Approx. %
Industrial Carbon	7440-44-0	82

Full text of H-phases, see section 16.

Section 4: First Aid Measures

Inhalation: Using proper respiratory protection, immediately move the exposed person to fresh air. Keep at rest and in a position comfortable for breathing. Seek immediate medical advice.

Skin Contact: Remove contaminated clothing. Rinse immediately with plenty of water (for at least 15 minutes). Call a POISON CENTER/doctor/physician if you feel unwell.

Ingestion: Rinse mouth. Do NOT induce vomiting. Get medical attention if still having symptoms.

Eyes: High dust concentrations may cause mechanical irritation. Remove contact lenses if present and easy to do. Flush eyes immediately with large amounts of water, occasionally lifting upper and lower lids. If irritation develops, seek medical aid.

Section 5: Fire Fighting Measures

Extinguishing Media: Dry chemical, carbon dioxide, nitrogen, water spray, fog, foam.

Unsuitable Media:

Water stream

Lower Explosive Limit: None

Upper Explosive Limit: None

Flash Point: Not Applicable

Flammability Classification: Not Applicable

Flame Propagation in Air: Not Applicable

Ignition in Air: Not Applicable

Fire Fighting Instructions:

Use water spray or fog for cooling exposed containers. Do not use high pressure water stream as this may spread the burning powder. Burning powder may also float and can spread that way.

Combustion Hazards:

Although carbon does burn, it does not meet the definition of OSHA's 'Combustible Dust'. This recovered black contains < 1% volatiles. Carbon containing more than 8% volatile materials may for an explosive dust-air mixture. Therefore, this product is not considered to have an explosion hazard.

Section 5: Fire Fighting Measures, cont.

Protective Equipment:

During Firefighting: Do not enter fire area without proper protective equipment, including respiratory protection.

Other information: Do not allow run-off from firefighting to enter drains or water courses.

Unusual Fire Hazards: Not Applicable.

Sensitivity to Impact: Not Applicable.

Sensitive to Static Charge: Not Applicable.

Section 6: Accidental Release Measures

Personal Precautions, Protective Equipment and Emergency Procedures

General Measures: Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Avoid generating dust. Do not get in eyes, on skin, or on clothing. Do NOT breathe (dust). Wet carbon produces dangerously slippery walking surfaces.

For Non-Emergency Personnel

Protective Equipment: Use appropriate personal protection equipment (PPE). Emergency Procedures: Eliminate ignition sources. Evacuate unnecessary personnel.

For Emergency Responders

Protective Equipment: Equip cleanup crew with proper protection.

Emergency Procedures: Stop leak if safe to do so. Eliminate ignition sources. Ventilate area.

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.

Methods and Material for Containment and Cleaning Up

For Containment: Avoid generation of dust during clean-up of spills. Small spills should be vacuumed up when possible with a vacuum equipped with HEPA (High Efficiency Particulate Air) filter. If necessary, a light water spray will reduce the dusting for dry sweeping methods. A lightly oiled floor sweeping compound will remove most of the remaining black residue.

Carbon black is not a hazardous substance under the Comprehensive Environmental response, Compensation and Liability Act (40 CFR 302), or the Clean Water Act (40 CFR 116), or a hazardous air pollutant under the Clean Air Act Amendments of 1990 (40
CFR, Part 63).

Methods for Cleaning Up: Small spills should be vacuumed up when possible with a vacuum having HEPA filtration. Dry sweeping is not recommended, however, if necessary a light water spray will reduce the dust. Large spills may be shoveled up into containers.

Reference to Other Sections

See heading 8, Exposure Controls / Personal Protection.

Section 5: Fire Fighting Measures, cont.

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During Firefighting: Do not enter fire area without proper protective equipment, including respiratory protection.

Other information: Do not allow run-off from firefighting to enter drains or water courses.

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Reference to Other Sections

See heading 8, Exposure Controls / Personal Protection.

Section 7: Handling and Storage

Handling and Storage Precautions:

- Store in a dry clean area. Store away from other materials.
- Prevent exposure to high temperature and electrostatic.
- Ensure adequate ventilation. Provide exhaust when needed.
- Avoid exposure to oxidizers.

Hygienic Practices:

Avoid creating dust. Clean up all spills promptly. Wash exposed skin daily. Wash work clothes daily.

Section 8: Exposure Controls/Personal Protection

Control Parameters:

Occupational Exposure Limits (OELs) have not been established for this product in particular, however a form of this product (carbon black) does have occupational limits as follows:
3.5 mg/m3 TWA for Canada
3.5 mg/m3 TWA for US OSHA PEL
3.0 mg/m3 TWA for inhalable fraction for US ACGIH TLV

Section 9: Physical and Chemical Properties

Physical State: Solid
Appearance: Dusty powder
Odor: None
Odor Threshold: Not determined
Ash Content: 15.87%
pH: 8.70 Approximately
Volatile Content: 2.08%
Extractables: 0.27%
PAH-EPA 8270: 0.001% Approximately
Flash Point: No data available.
Dust Explosion Classification: ST1 Hazard Class
Decomposition Temperature: Approximately 572 degrees F (300 degrees C)
Pour Density: 468 kg/m3
Bulk Density: 561 kg/m3
Solubility: Insoluble
Density: 1.83

Section 10: Stability and Reactivity

Chemical Stability: Stable under normal ambient conditions.
Conditions to Avoid: Contact with strong oxidizers, especially when heated. High temperatures or flames.
Incompatible Materials: Strong oxidizers.
Reactivity: May react exothermically upon contact with strong oxidizers.
Hazard Decomposition: Carbon oxides (CO, CO2); Organic products of decomposition; and sulfoxides formed if headed above 300 degrees C.
Hazard polymerization: Not applicable.

Section 11: Toxicological Information

Note: No toxicological information is available for this product, however, there is plenty of information available for a form of this product, which is Carbon Black.
Acute Toxicity: Harmful if inhaled.

Carbon Black (1333-86-4)

LD50 Oral Rat	>8000 mg/kg
Eye Irritation Rabbit	Non-Irritating Draize Score 10-17/110 (100= max irritating)
Skin Irritation Rabbit	Non-Irritating, index score 0.6/8 (4.0= severe edema)
Inhalation Rat NOAEL	1.1 mg/m3 (respirable) for duration of 90 days

Skin Corrosion/Irritation: May causes slight skin irritation due to defatting of the skin.
Eye Irritation: Causes mechanical eye irritation.
Respiratory or Skin Sensitization: No cases of sensitization in humans have been reported.
Germ Cell Mutagenicity: Not classified
Carcinogenicity: IARC classifies carbon black as a 28 Carcinogen (Possibly Carcinogenic To Humans). This conclusion was based on IARC's guidelines which enquire such a classification if one species exhibits carcinogenicity in two or more studies. Neither OSHA or the NTP (National Toxicology Program) lists carbon black as a carcinogen.
A study to examine the bioavailability of PAH's (Polycyclic Aromatic Amines) in carbon black showed that the PAH's are very tightly bound to carbon black so that they are believed to be not bioavailable.
Reproductive Toxicity: No effects have been reported in long-term animal studies.
Specific Target Organ Toxicity (Single Exposure): Not classified
STOT (Specific Target Organ Toxicity) RE (Repeated Exposure): Lungs affected with inflammation, hyperplasia, and fibrosis resulting.
Aspiration Hazard: Not classified
Symptoms/Injuries After Ingestion: Ingestion is not likely to have adverse effects.
Chronic Symptoms: Repeated or prolonged skin contact may cause dermatitis and defatting. Also see above STOT RE.
Rat Inhalation (2 years): Lung inflammation, fibrosis, and tumors.
Note: These tumors have not been observed in other species in similar conditions and are considered to be the result of particle overload phenomenon rather than to a specific chemical effect of carbon black itself in the lung.
Other Symptoms after exposure: Results of epidemiological studies suggest that cumulative exposure to carbon black may result in small decrements in lung function (FEVl).

Section 12: Ecological Information

No specific hazards are associated with carbon in the environment. The following information is for carbon black in general and not specifically for this product.

Carbon Black (1333-86-4)

LCSO Zebrafish	>1000 mg/l (Exposure Time: 96 h -Species: Brachydanio rerio)
ECSO Water Flea	>5600 mg/l (Exposure time: 24 h - Species: Daphnia magna)
ESCO Algae	>10,000 mg/l (Exposure time: 72h Species: Scenedesmus subspicatus)

Persistence and Degradability: No information available.
Bio accumulative Potential: Not expected because of physio-chemical properties.
Mobility in Soil: Not soluble in water, therefore, not expected to migrate. Expected to remain in soil surface as chemically inert.
Other Information: Avoid release to the environment.

Section 13: Disposal Considerations

Dispose of waste material in accordance with all local, regional, national, and international regulations. U.S. EPA regulations for the classification determination are listed in 40 CFR 261.3.

Product as purchased would not be considered a RCRA Hazard Waste. Not a hazardous waste under provincial regulations in Canada.

Section 14: Transport Information

In Accordance with DOT: Not regulated for transport by the U.S Department of Transportation or the Canadian Transport of Dangerous Goods Regulations. Freight Code: 23900 Blacks Dry Class: 77.5

In Accordance with IMDG: Not regulated for transport.

In Accordance with IATA: Not regulated for transport.

Section 15: Regulatory Information

Resource Conservation and Recovery Act, (RCRA): All metals are below the TCLP listed levels.
UN Classification: Not classified
TSCA: All components listed on the United States TSCA (Toxic Substances Control Act) inventory.
SARA Section 311/312 Hazard Classes: Chronic/Delayed Health Hazard. Reporting may be required if the material is present at any one time in amounts of 10,000 pounds or greater.
SARA TITLE III: The reporting threshold for 21 Polycyclic Aromatic Compounds (PAH's) stands at 100 pounds/year manufactured, processed or otherwise used. These 100 pounds refers to the cumulative total of all 21 PAC's. Testing of this product reveals that many of these PAC's are not detectable at 0.02% and overall the PAH content is approximately 0.82%. The user is advised to evaluate their own TRI reporting responsibilities.

Section 16: Other Information

HMIS #: Health = 1 Fire = 1 Reactivity = 0 Personal Protective Equipment E

Prepared by: Coal Fillers Inc.

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