1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product identifier

Other means of identification
Synonyms: CARBON BLACK

Recommended use of the chemical and restrictions on use
Recommended Use: Pigments, Batteries, Additive for plastic and rubber, Chemical reagent, Refractories
Uses advised against: Use in tattoo inks

Details of the supplier of the safety data sheet
Supplier: Imerys Graphite & Carbon Belgium SA
Address: Brownfieldlaan 19 • 2830 Willebroek • Belgium
Phone: +32 3 886 71 81
FAX: +32 3 886 47 73
E-mail: graphiteandcarbon.be@imerys.com

Importer: Imerys Graphite & Carbon Belgium SA
Address: Brownfieldlaan 19 • 2830 Willebroek • Belgium
Phone: +32 3 886 71 81
FAX: +32 3 886 47 73
E-mail: graphiteandcarbon.be@imerys.com

Emergency telephone number
For Hazardous Materials [or Dangerous Goods] Incident
Spill, Leak, Fire, Exposure, or Accident
Call CHEMTREC Day or Night
Within USA and Canada: 1-800-424-9300
Outside USA and Canada: +1 703-741-5970 (collect calls accepted)

2. HAZARDS IDENTIFICATION

GHS Classification
Not classified

Label elements
Symbols/Pictograms: None
Signal word: None
Hazard Statements: Not classified
Precautionary Statements
Prevention: None
Response: None
Storage: None
Disposal: None
Hazards not otherwise classified (HNOC)
No information available

Unknown acute toxicity
No information available

3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical nature</th>
<th>Substance</th>
<th>CAS No</th>
<th>Weight-%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbon black</td>
<td></td>
<td>1333-86-4</td>
<td>&gt; 96</td>
</tr>
</tbody>
</table>

4. FIRST AID MEASURES

Description of first aid measures

General advice
If symptoms persist, call a physician. Remove contaminated clothing and shoes. Wash contaminated clothing before reuse.

Inhalation
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical advice/attention if you feel unwell.

Skin Contact
Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Wash contaminated clothing before reuse. If skin irritation persists, call a physician.

Eye contact
Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.

Ingestion
Rinse mouth. Get medical attention. Never give anything by mouth to an unconscious person.

Most important symptoms and effects, both acute and delayed

Repeated and prolonged skin contact may cause removal of natural fat from the skin and irritation of the skin. Eye contact may cause mechanical irritation through dust particles. Inhalation of dusts may irritate the respiratory tract

Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Extinguishing media
Suitable extinguishing media CO2, dry chemical, dry sand, alcohol-resistant foam.

Unsuitable extinguishing media
Do not scatter spilled material with high pressure water streams.

Specific hazards arising from the chemical
 Thermal decomposition can lead to release of irritating and toxic gases and vapors
 Carbon oxides (COx)

Protective equipment and precautions for firefighters
 Carbon black does not burn with an open flame and fire may not be noticed until material is pocked to reveal visible sparks. Carbon black that has burnt once should be observed carefully for at least 48 hours. Water used to extinguish fire should not enter drainage systems, soil or stretches of water. Ensure there are sufficient retaining facilities for water used to extinguish fire. Fire residues and contaminated fire extinguishing water must be disposed in accordance with local regulations.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures
Ensure adequate ventilation, especially in confined areas
Evacuate personnel to safe areas
Use personal protection recommended in Section 8
Avoid contact with skin, eyes or clothing
Do not touch or walk through spilled material
Remove all sources of ignition
Avoid creating dust
Caution: moist Carbon Black causes dangerously slick surfaces.

Methods and material for containment and cleaning up

Prevent further leakage or spillage if safe to do so
Do not dry sweep dust. Wet dust with water before sweeping or use a vacuum to collect dust
Take up mechanically, placing in appropriate containers for disposal

7. HANDLING AND STORAGE

Precautions for safe handling

Handle in accordance with good industrial hygiene and safety practice
Ensure adequate ventilation, especially in confined areas
Use personal protection recommended in Section 8
Do not eat, drink or smoke when using this product
Avoid contact with skin, eyes or clothing
Remove contaminated clothing and shoes
Wash contaminated clothing before reuse
Dust can form an explosive mixtures with air. Take measures against dust explosion.
Wash thoroughly after handling
Do not breathe dust/fume/gas/mist/vapors/spray
Avoid generation of dust
Take precautionary measures against static discharges
Keep away from heat, sparks, flame and other sources of ignition

Conditions for safe storage, including any incompatibilities

Keep containers tightly closed in a dry, cool and well-ventilated place
Keep away from heat
Store in accordance with local regulations

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
<th>NIOSH IDLH</th>
<th>Denmark</th>
<th>European Union</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbon black (CAS #: 1333-86-4)</td>
<td>TWA: 3 mg/m$^3$ inhalable fraction</td>
<td>-</td>
<td>IDLH: 1750 mg/m$^3$ TWA: 3.5 mg/m$^3$ TWA: 0.1 mg/m$^3$ Carbon black in presence of Polycyclic aromatic hydrocarbons PAH</td>
<td>TWA: 3.5 mg/m$^3$</td>
<td>-</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Latvia</th>
<th>France</th>
<th>Finland</th>
<th>Germany</th>
<th>Italy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbon black (CAS #: 1333-86-4)</td>
<td>TWA: 3.5 mg/m$^3$</td>
<td>TWA: 3.5 mg/m$^3$ STEL: 7 mg/m$^3$</td>
<td>Skin</td>
<td>-</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Norway</th>
<th>United Kingdom</th>
<th>Australia</th>
<th>Austria</th>
<th>Belgium</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbon black (CAS #: 1333-86-4)</td>
<td>TWA: 3.5 mg/m$^3$ STEL: 3.5 mg/m$^3$</td>
<td>-</td>
<td>3 mg/m$^3$</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Appropriate engineering controls
Ensure adequate ventilation, especially in confined areas

**Individual protection measures, such as personal protective equipment**

**Respiratory protection**
If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

**Hand Protection**
Wear protective gloves.

**Eye/face protection**
Wear safety glasses with side shields (or goggles).

**Skin and body protection**
Wear suitable protective clothing.

### 9. PHYSICAL AND CHEMICAL PROPERTIES

**Information on basic physical and chemical properties**

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Powder / granules</td>
</tr>
<tr>
<td>Color</td>
<td>Black</td>
</tr>
<tr>
<td>Odor</td>
<td>Odorless</td>
</tr>
<tr>
<td>Odor Threshold</td>
<td>Not determined</td>
</tr>
<tr>
<td>pH</td>
<td>5 – 11 (ASTM D1512-05)</td>
</tr>
<tr>
<td>Melting point/freezing point</td>
<td>&gt; 3000°C</td>
</tr>
<tr>
<td>Boiling point / boiling range</td>
<td>&gt; 3000°C</td>
</tr>
<tr>
<td>Flash point</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>Not determined</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Not flammable</td>
</tr>
<tr>
<td>Flammability Limit in Air</td>
<td>50 g/m³ ~</td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Vapor density</td>
<td>Not determined</td>
</tr>
<tr>
<td>Density</td>
<td>15.02-16.69 lbs/gallon (25°C)</td>
</tr>
<tr>
<td>Relative density</td>
<td>Not determined</td>
</tr>
<tr>
<td>Bulk density</td>
<td>0.12 - 0.25 g/ml</td>
</tr>
<tr>
<td>Specific gravity</td>
<td>Not determined</td>
</tr>
<tr>
<td>Water solubility</td>
<td>Insoluble</td>
</tr>
<tr>
<td>Partition coefficient (LogPow)</td>
<td>Not determined</td>
</tr>
<tr>
<td>Ignition temperature</td>
<td>&gt; 500°C</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>&gt; 932°F</td>
</tr>
<tr>
<td>Kinematic viscosity</td>
<td>Not determined</td>
</tr>
<tr>
<td>Dynamic viscosity</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>Not an explosive</td>
</tr>
<tr>
<td>Oxidizing properties</td>
<td>No oxidising properties</td>
</tr>
</tbody>
</table>

**Other information**
No information available

### 10. STABILITY AND REACTIVITY

**Reactivity**
Stable under recommended storage and handling conditions (see SECTION 7, handling and storage).

**Chemical stability**
Stable under normal conditions

**Possibility of Hazardous Reactions**
None under normal processing

**Conditions to avoid**
Extremes of temperature and direct sunlight

**Incompatible materials**
Oxidizing agents.

**Hazardous Decomposition Products**
None known based on information supplied
Thermal decomposition can lead to release of irritating and toxic gases and vapors
Carbon oxides (COx)

## 11. TOXICOLOGICAL INFORMATION

### Information on likely routes of exposure

<table>
<thead>
<tr>
<th>Route</th>
<th>Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inhalation</td>
<td>Inhalation of dusts may irritate the respiratory tract.</td>
</tr>
<tr>
<td>Eye contact</td>
<td>Eye contact may cause mechanical irritation through dust particles.</td>
</tr>
<tr>
<td>Skin Contact</td>
<td>Repeated and prolonged skin contact may cause removal of natural fat from the skin and irritation of the skin.</td>
</tr>
<tr>
<td>Ingestion</td>
<td>No known effect based on information supplied</td>
</tr>
</tbody>
</table>

### Information on toxicological effects

#### Acute toxicity

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Oral LD50</th>
<th>Dermal LD50</th>
<th>Inhalation LC50</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbon black (CAS #: 1333-86-4)</td>
<td>&gt; 8000 mg/kg (rat)</td>
<td>&gt; 3000 mg/kg (Rabbit)</td>
<td>-</td>
</tr>
</tbody>
</table>

**Skin corrosion/irritation**
Non-irritating to the skin

**Serious eye damage/eye irritation**
No eye irritation

**Sensitization**
No sensitization responses were observed

**Germ cell mutagenicity**
Not classified

**Carcinogenicity**

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH</th>
<th>IARC</th>
<th>NTP</th>
<th>OSHA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbon black (CAS #: 1333-86-4)</td>
<td>A3</td>
<td>Group 2B</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

**Reproductive toxicity**
Not classified

**STOT - single exposure**
No information available

**STOT - repeated exposure**
Not classified

**Aspiration hazard**
No applicable.
12. ECOLOGICAL INFORMATION

Ecotoxicity
No data available

Persistence and degradability
Biodegradation is not expected.

Bioaccumulative potential
Bioaccumulation is not expected.

Mobility in soil
No information available

Other adverse effects
No information available

13. DISPOSAL CONSIDERATIONS

Waste treatment methods
Disposal of wastes Disposal should be in accordance with applicable regional, national and local laws and regulations
Contaminated packaging Dispose of in accordance with federal, state and local regulations

14. TRANSPORT INFORMATION

The product is a non-activated carbon black of mineral origin. Basing on test studies this product is not being considered a hazardous good according to the classification of hazardous goods 4.2, since self-ignition is above 140°C.

DOT
UN/ID No. Not regulated
Proper shipping name Not regulated
Hazard Class Not regulated
Packing Group Not regulated
Special precautions No information available
Marine pollutant Not applicable

15. REGULATORY INFORMATION

International Inventories

<table>
<thead>
<tr>
<th>Component</th>
<th>AICS</th>
<th>DSL/NDSL</th>
<th>EINECS/ELINCS</th>
<th>ENCS</th>
<th>IECSC</th>
<th>KECL</th>
<th>PICCS</th>
<th>TSCA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbon black 1333-86-4 (60 - 100)</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td>X</td>
<td></td>
<td>X</td>
</tr>
</tbody>
</table>

"-" Not Listed
"X" Listed

US FEDERAL REGULATIONS

Toxic Substances Control Act (TSCA)
Is listed on the TSCA inventory

Following ingredients are Hazardous by definition of Hazard Communication Standard:
CAS no. 1333-86-4
US Federal Regulations
SARA Section 302 (RQ):
None of the ingredients is listed

SARA 313
Not apply.

SARA 311/312 Hazard Categories
Not apply.

CWA (Clean Water Act)
None of the ingredients is listed.

CERCLA
Not apply.

HAPS Hazardous Air Pollutants
None of the ingredients is listed.

HMIS Classification
Health 1
Flammability 1
Physical Hazard 0

US State Regulations
California Proposition 65

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>California Proposition 65</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbon black - 1333-86-4</td>
<td>Carcinogen</td>
</tr>
</tbody>
</table>

New Jersey Worker and Community Right to Know Act.
Following ingredients are listed:
CAS no. 1333-86-4

Pennsylvania HAZARDOUS SUBSTANCE LIST
Following ingredients are listed:
CAS no. 1333-86-4

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>New Jersey</th>
<th>Massachusetts</th>
<th>Pennsylvania</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbon black</td>
<td>X</td>
<td>X</td>
<td>-</td>
</tr>
<tr>
<td>1333-86-4</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

16. OTHER INFORMATION

Revision Note
Issue Date 29-May-2015
Revision date 29-May-2015
Revision Note Not applicable

Key or legend to abbreviations and acronyms used in the safety data sheet
TWA - TWA (time-weighted average)
STEL - STEL (Short Term Exposure Limit)
Ceiling - Maximum limit value
TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
AICS - Australian Inventory of Chemical Substances

Disclaimer
The information provided in this Material Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

-------- End of Safety Data Sheet --------