

SAFETY DATA SHEET

(in accordance with Regulation (EU) 2015/830)



CARBON BLACK

Version: 3
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SECTION 1: IDENTIFICATION OF THE SUBSTANCE AND OF THE COMPANY/UNDERTAKING.

1.1 Product identifier.

Product Name: CARBON BLACK
Chemical Name: Carbon black
CAS No: 1333-86-4
EC No: 215-609-9
REACH Registration Number: 01-2119384822-32-XXXX

1.2 Relevant identified uses of the substance and uses advised against.

Pyrotechnical compositions

Uses advised against:

Tattoo

1.3 Details of the supplier of the safety data sheet.

Company: **ALDEBARÁN SISTEMAS SL**
Address: C/Jerónimo Zurita, 10, entlo izda, 50001
City: Zaragoza
Province: Zaragoza
Telephone: 0034976796134
E-mail: aldebaran@aldebaransistemas.com

1.4 Emergency telephone number: 0034915620420 (Available 24 hours)

SECTION 2: HAZARDS IDENTIFICATION.

2.1 Classification of the substance.

Classification (REGULATION (EC) No 1272/2008)

Not hazardous substance or mixture according to Regulation (EC) No. 1272/2008

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 in 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 tumours in rats are the result of exposure under "lung overload" conditions. The development of lung tumours 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 in humans. 2) The European CLP Regulation also mentions, that no classification is indicated, if the mechanism is not relevant to humans. 3)

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Furthermore, the CLP guidance on classification and labelling states, that "lung overload" in animals is listed under mechanism nor relevant to humans. 4)

2.2 Label elements.

Labelling not required according to EU-CLP Ordinance (1272/2008).

2.3 Other hazards.

Not a PBT. vPvB substance as per the criteria of the REACH Ordinance.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS.

3.1 Substances.

Mono-constituent.

Chemical Name:	[1] Carbon black, amorphous
Concentration:	100%
CAS No:	1333-86-4
EC No:	215-609-9

[1] Substance with a Community workplace exposure limit (see section 8.1).

SECTION 4: FIRST AID MEASURES.

4.1 Description of first aid measures.

Inhalation.

Restore normal respiration with first aid measures as necessary.

If cough, dyspnoea or other respiratory problems occur, bring exposed persons out into the fresh air. Consult a physician if symptoms persist.

Eye contact.

Possible discomfort is due to foreign substance effect.

Rinse thoroughly with plenty of water keeping eyelid open.

In case of persistent discomfort: Consult a n ophthalmologist.

Skin contact.

Carefully wash off skin with soap and water. Consult a physician if symptoms occur. ners.

Ingestion.

Do not induce vomiting

Rinse mouth with water

If conscious, drink plenty of water.

Never give by mouth to anyone, who faints quickly, become unconscious or has cramps.

After absorbing large amounts of substance / In case of discomfort: Supply with medical care.

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

No known.

4.3 Indication of any immediate medical attention and special treatment needed.

Treatment: After absorbing large amounts of substance: Acceleration of gastrointestinal passage

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SECTION 5: FIREFIGHTING MEASURES.

5.1 Extinguishing media.

Suitable extinguishing media:

Use foam, carbón dioxide (CO₂), nitrogen (N₂), dry chemical or wáter spray. Use of atomized spray is recommended if wáter is used.

Unsuitable extinguishing media:

Do not use full-force wáter jet in order to avoid dispensar and spread of the fire.

5.2 Special hazards arising from the substance.

Maybe released in case of fire: carbón monoxide, carbón dioxide, sulphur oxides, organic products of decomposition.

5.3 Advice for firefighters.

Fire protection equipment.

In case of fire: wear a self contained respiratory apparatus.

Carbon Black does not burn with an open flame and fire may not be noticed until material is poked 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 wáter.

Ensure there are sufficient retaining facilities for wáter used to extinguish fire.

Fire residues and contaminated fire extinguishing wáter must be disposed of in accordance with local regulations.

Retention of fire-extinguishing wáter in Germany: see Fire.

Extinguishing wáter Retention Directive "LoeRueRL".

SECTION 6: ACCIDENTAL RELEASE MEASURES.

6.1 Personal precautions, protective equipment and emergency procedures.

Caution: Moist industrial soot causes dangerously slick surfaces. Avoid dust formation. Ensure sufficient ventilation. Use personal safety equipment.

6.2 Environmental precautions.

Do not allow material to enter the groundwater system. Product floats on wáter and does not dissolve. If possible, try to keep floating material together. If larger amounts of spilt material cannot be contained, local authorities should be informed. Do not allow entrance in sewage wáter, soil stretches of wáter, groundwater, drainage systems.

6.3 Methods and material for containment and cleaning up.

Vacuum up immediately. A vacuum cleaner with a high-efficiency filtration system is recommended. To avoid raising dust do not use brooms or compressed air. Collect and place on correctly labelled containers. For disposal see section 13.

Avoid dust formation.

6.4 Reference to other sections.

See handling advice, see section 7

For exposure control and individual protection measures, see section 8.

For later elimination of waste, follow the recommendations under section 13.

SECTION 7: HANDLING AND STORAGE.

7.1 Precautions for safe handling.

Advice on safe handling:

Avoid contact with eyes and skin. Do not inhale dust. Ensure sufficient ventilation and extraction at processing machines and locations where dust may form. Use no brooms or compressed air to avoid raising dust. Fine dust may cause electrical short circuiting or penetrate into electrical devices that are not completely sealed. Take measures to prevent electrostatic charging. If

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work under hot conditions is unavoidable (welding, torch cutting, etc.) the working area must be kept as free as possible of soot product and dust.

Provide sufficient ventilation and exhaust at the workplace.

Advice on protection against fire and explosion:

In closed containers such as silos or poorly ventilated store rooms, carbon monoxide may be present. For this reason, sources of ignition should be kept clear and respiratory equipment independent of surrounding air should be worn as a precautionary measure. When repairs of the production system are to be made (e.g. welding work), the section to be repaired must be essentially free of product. Take measures to prevent the build up of electrostatic charge. Keep away from sources of ignition. No smoking.

Hygiene measures:

When using, do not eat, drink or smoke. Wash face and/or hands before break and end of work. To ensure ideal skin protection: use super fatted soaps and skin cream for skin care.

Dust explosion class

St1

Methods: VDI 2263

7.2 Conditions for safe storage, including any incompatibilities.

Requirements for storage areas and containers:

Store cool and dry in well-ventilated location. Keep away from heat and ignition sources. Do not store together with strong oxidants. Do not store together with volatile compounds, since they may be absorbed. Store in correctly labelled containers.

Further information on storage conditions:

Keep away from sources of ignition- No smoking. Take measures to prevent the build up electrostatic charge. Apply technical measures to comply with the occupational exposure limits (see section 8).

7.3 Specific end use(s).

Specific use(s): no

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION.

8.1 Control parameters.

Derived No Effect Level(DNEL) according to Regulation (EC) No. 1907/2006

Name	End use.	Exposure routes	Potential health effects	Value
Carbon black, amorphous	Worker	Inhalation (respirable fraction)	See section 11	0,5 mg/m ³
	Worker	Inhalation (Inhalable fraction)	See section 11	2 mg/m ³

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8.2 Exposure controls.

Engineering measurements

Use process enclosures and/or exhaust ventilation to keep airborne dust concentrations below the occupational exposure limit. Depending on processing requirements equipment, and the composition, concentration, and energy requirements of intermediates and/or finished products, dust control systems may require explosion relief vents, or an explosion suppression system, or an oxygen-deficient environment. Local exhaust ventilation recommended for all transfer points to mixers, blenders, batch feeding processes and point sources that may release dust to work environment.

Recommend mechanical handling to minimize human contact with dust.

Recommend ongoing preventive maintenance and housekeeping programs to minimize dust release from ventilation control systems and the build-up of dust on surfaces in work environments. Except for approved power-operated trucks designated as EX, power-operated industrial trucks shall not be used in atmospheres containing hazardous concentrations of carbon black dust. See also section 7.

Personal protective equipment

Eye protection:	Safety glasses with side-shields If dust occurs: basket-shaped glasses.
Hand protection material:	No special glove compositions is required for carbon black. Gloves may be used to protect hands from carbon black soiling
Remarks:	Recommendation: Wear protective gloves made of the following materials: natural latex (NR), PVC, nitrile rubber (NBR). The data about break through time/strength of material is not valid for undissolved solids/dust.
Skin and body protection:	When using, do not eat, drink or smoke. Wash face and/or hands before break and end of work. Wash hands and other exposed skin with mild soap and water. Use of a barrier cream may help prevent skin drying and minimize soiling. To ensure ideal skin protection: use super fatted soaps and skin cream for skin care. When handling larger quantities: chemical protective suit or disposable protective clothing. Remove and wash contaminated clothing before re-use.
Respiratory protection:	If workplace exposure limits are exceeded and/or larger amounts are released (leakage, spilling, dust) the indicated respiratory protection should be used. Dust mask with P2 particle filter. Approved air purifying respirator (APR) for particulates should be used where airborne dust concentrations are expected to exceed occupational exposure limits. Use a positive-pressure, air supplied respirator if there is any potential for uncontrolled release, exposure levels are not known, or in circumstances where APRs may not provide adequate protection. When respiratory protection is required to minimize exposures to carbon black, programs should follow the requirements of the appropriate governing body for the country, province or state.
Protective measures:	If there is the possibility of skin/eye contact, the indicated hand/eye/body protection should be used. Handle in accordance with good industrial hygiene and safety practice.

Environmental exposure controls

Air: Knock down dust with water spray jet.

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SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES.

9.1 Information on basic physical and chemical properties.

Appearance: Powder

Colour: Black

Odour: Odourless

Odour threshold: N.A./N.A.

pH: $\geq 6,5$ (20°C) Concentration 50g/l

Melting point: $> 3000^{\circ}\text{C}$

Boiling Point: $> 3000^{\circ}\text{C}$

Flash point: N.A./N.A.

Evaporation rate: N.A./N.A.

Inflammability (solid, gas): > 45 s Method: VDI 2263

Lower Explosive Limit: 50 g/m³

Upper Explosive Limit: N.A./N.A.

Vapour pressure: N.A./N.A.

Density: 1,7 -1,9 g/m³ (20°C)

Solubility: Insoluble (water)

Liposolubility: N.A./N.A.

Hydrosolubility: N.A./N.A.

Partition coefficient (n-octanol/water): N.A./N.A.

Auto-ignition temperature: $> 140^{\circ}\text{C}$. Method: IMDG Code. Volumen dependent parameter, measured temperature refer to the 1 l sample.

Decomposition temperature: $> 400^{\circ}\text{C}$. Method: VDI 2263. Smoulder temperature

Viscosity: N.A./N.A.

Explosive properties: Dust deflagration index (Kst). Kst= 30 – 100 bar m/s. Method: VDI 2263.
Dust can form explosive mixtures with air. See section 7.

Oxidizing properties: N.A./N.A.

N.A./N.A.= Not Available/Not Applicable due to the nature of the product

9.2 Other information.

Impact sensitivity: Not impact sensitive.

Dust explosion class: St 1 Method VDI 2263

Metal corrosion rate: not determined

Minimum ignition energy: > 1 kJ. Method :VDI 2263

Minimum ignition temperature: $> 600^{\circ}\text{C}$ Method: VDI 2263(BAM-furnace)

Maximal absolute explosion pressure: 10 bar Methods: VDI 2263

Metal corrosion: Remark: not determined.

SECTION 10: STABILITY AND REACTIVITY.

10.1 Reactivity.

Stable under normal conditions.

Carbon black cannot easily be caused to explode and therefore there is no danger in practical use.

However, in special test procedures a carbon black/air mixture can explode.

10.2 Chemical stability.

The product is chemically stable.

10.3 Possibility of hazardous reactions.

Hazardous reactions:

Hazardous polymerization does not occur.

Will not occur under normal conditions.

Carbon black cannot easily be caused to explode and therefore there is no danger practical use.

However, in special test procedures a carbon black/air mixture can explode.

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Take measures to prevent electrostatic discharges. Avoid dust formation. All metal parts of the mixing and processing machines must be earthed. Make sure all equipment is grounded before loading operations

10.4 Conditions to avoid.

Avoid heat effect and sources of ignition
Avoid temperatures above 400°C

10.5 Incompatible materials.

Avoid contact with strong oxidants

10.6 Hazardous decomposition products.

Carbon monoxide
Carbon dioxide (CO₂)
Organic products of decomposition
sulphoxides

SECTION 11: TOXICOLOGICAL INFORMATION.

11.1 Information on toxicological effects.

a) acute toxicity;

Acute oral toxicity

LD50 (Rat): > 8000 mg/kg

Method: Equivalent to OECD Test Guideline 401

Assessment: The substance or mixture has no acute oral toxicity

b) skin corrosion/irritation;

Product

Species: Rabbit

Method: Equivalent to OECD Test Guideline 404

Result: not irritating

Remarks:

Oedema

=0 (max. attainable irritation score: 4)

Erytema

= 0 (max. attainable irritation score: 4)

c) serious eye damage/irritation;

Product

Species: Rabbit

Method: Equivalent to OECD Test Guideline 405

Result: not irritating

Remarks:

Cornea

=0 (max. attainable irritation score: 2)

Iris

= 0 (max. attainable irritation score: 4)

Conjunctiva

=0 (max. attainable irritation score: 3)

Chemosis

= 0 (max. attainable irritation score: 4)

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d) respiratory or skin sensitisation;

Test Type: Buehler Test

Species: Guinea pig

Method: OECD Test Guideline 406

Result: not sensitizing to the skin

Remarks: No evidence of sensitization was found in animals.

No cases of sensitization in humans have been reported.

e) germ cell mutagenicity;

Product:

Genotoxicity in vitro:

Remarks: Carbon Black is not suitable to be tested in bacterial (Ames test) and other in vitro systems because of its insolubility. 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).

Genotoxicity in vivo:

Remarks: 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 species.

Germ cell mutagenicity-:
Assessment

Not a mutagen

In vivo mutagenicity in rats is occurring by mechanisms secondary to a threshold effect 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.

f) carcinogenicity;

Product

Species: Rat

Application Route: Oral

Exposure time: 2 years

Remarks: no tumours

Species Rat

Application Route: Inhalation

Exposure time: 2 years

Remarks: lungs/inflammation/fibrosis, tumours

Remarks: exposure under overload conditions

Remarks: Lung tumours in rats are the result of exposure under "lung overload". The development of lung tumours in rats is specific to this species. Mouse and hamster do not develop lung tumours under similar test conditions. The CLP guidance on classification and labelling states, that "lung overload" in animals is listed under mechanism not relevant to humans. \$).

Species: Mouse

Application Route: Oral

Exposure time: 2 years

Remarks: no tumours

Species: Mouse

Application Route: Dermal

Exposure time: 18 months

Remarks: no tumours

Carcinogenicity Assessment: Not carcinogenic.

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g) reproductive toxicity;

Product

Effects on fertility:

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

Effects on foetal development:

Remarks: No experimental studies on effects of Carbon Black on foetal development have been located. However, based on the toxicokinetics data, Carbon Black is deposited in the lungs and based on its specific chemical-physical 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 foetal development are expected

h) STOT-single exposure;

Product:

Remarks: Based on the information available, organ-specific toxicity is not to be expected after one single exposure.

i) STOT-repeated exposure;

Product:

Remarks: effects in the rat lung are considered to be related to the "lung overload phenomenon" (1&6&7&8&9) rather than to a specific chemical effect of Carbon Black itself in the lung. These effects in rats have been reported in many studies on the other poorly soluble inorganic particles.

Remarks: Based on the information available, organ-specific toxicity is not to be expected after repeated exposure.

Repeated dose toxicity

Product

Species: rat

NOAEC: 1 mg/m³

Application Route: inhalation (respirable fraction)

Exposure time: 90 d

Target Organs: lungs / inflammation, hyperplasia, fibrosis

Species: Mouse

NOEL: 137 mg/kg

Application Route: Oral

Exposure time: 2 year

Species: rat

NOEL: 52 mg/kg

Application route: Oral

Exposure time: 2 year

j) aspiration hazard;

Results of epidemiological studies of Carbon Black production workers suggest that cumulative exposure to Carbon Black may result in small decrements in lung function. A recent U.S. respiratory morbidity study suggested a 27 ml decline in FEV1 from a 1 mg/m³ (inhalable fraction) exposure over a 40-year period. An older European investigation suggested that exposure to 1 mg/m³ (inhalable fraction) of Carbon Black over a 40 year working lifetime would result in a 48 ml decline in FEV1. However, the estimates from both studies were only of borderline statistical significance. Normal age-related decline over a similar period of time would approximately 1200 ml.

The relationship between other respiratory symptoms and exposure to Carbon Black is even 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 conclusions that can be drawn

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about reported 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&12&13&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 larger 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 19) 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 occupational exposure to Carbon Black.

No dose response relationship was observed in workers exposed to Carbon Black.

SECTION 12: ECOLOGICAL INFORMATION.

12.1 Toxicity.

Product:

Toxicity to fish:	LC0 ((Brachydanio rerio)): 1000 mg/l Exposure time : 96 h Method: OECD 203
	LC0 (Leuciscus idus melanotus): >5000 mg/l Exposure time: 14 d Method: DIN 38412 part 15
Toxicity to daphnia and other: aquatic invertebrates	EC50 (Daphnia magna): > 5600 mg/l Exposure time: 24 h Method: OECD 202
Toxicity to algae:	EC50 (scedesmus subspicatus): > 10000 mg/l Exposure time: 72 h Method: OECD 201
	NOEC (scenedesmus subspicatus): >10000 mg/l Exposure time: 72h Method: OECD 201
Toxicity to microorganisms:	EC0 (local activated sludge); >400 mg/l Exposure time: 3h Method: DEV L3 (TTC test)

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EC10 (local activated sludge): 800 mg/l
Exposure time: 3h
Method: DEV L3 (TTC test)

Ecotoxicology Assessment

- Acute aquatic toxicity: Carbon Black is an inert, inorganic and water insoluble substance therefore its bioavailability for aquatic organisms is low. As an element it has not further reactive or functional groups and an acute toxicity is not expected.
- Chronic aquatic toxicity: Carbon Black is an inert, inorganic and water insoluble substance therefore its bioavailability for aquatic organism is low. As an element it has not further reactive or functional groups and a chronic toxicity is not expected
- Toxicity Data Soil: As an inert solid substance, insoluble in water and organic solvents diffusion through membranes or uptake and bioaccumulation to terrestrial organism is not expected. Based on the available data, Carbon Black us not considered as toxic to terrestrial organism.

12.2 Persistence and degradability.

Product

- Biodegradability: Remarks: Carbon Black is substantially elemental carbon. The substance is inorganic and cannot be further biodegraded by microorganisms.
- Physico-chemical removability: Remarks: Carbon Black is substantially elemental carbon. It is inert and contains no functional or water-soluble groups. It cannot be further degraded by hydrolysis, light or by photo degradation in air or in surface water.
- Stability in water: Remarks: the product is insoluble and floats on water.
- Impact on sewage Treatment: Based on the available data, Carbon Black is not expected to interfere with the operation of sewage treatment plants.

12.3 Bioaccumulative potential.

Product:

- Bioaccumulation: Remarks: Based on the physical –chemical properties of Carbon Black as an inert solid, its insolubility and stability in water and in organic solvents, diffusion through membranes of organism and therefore bioaccumulations is not expeted.

12.4 Mobility in soil.

Product:

- Stability in soil: Remarks: Carbon Black is an inert solid. It is stable and insoluble in water or organice 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, respectively, can be dismissed. The deposition in soil or sediments is therefore the most relevant compartment of fate in the environment.

12.5 Results of PBT and vPvB assessment.

Product:

- Assessment: No a PBT, vPvB substance as per the criteria of the REACH Ordinance...

12.6 Other adverse effects.

Product:

- Additional ecological information: No negative effects known

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SECTION 13 DISPOSAL CONSIDERATIONS.

13.1 Waste treatment methods.

Product:

In accordance with local and national regulations.
Observe national regulations.

No waste key number as per the European Waste Types List can be assigned to this product, since such classification is based on the (as yet undetermined) use to which the product is put by the consumer.

The waste key number must be determined as per the European Waste Types List (decision on EU Waste Types List 2000/532/EC) in cooperation with the disposal firm/producing firm/official authority.

Contaminated packaging:

Non-contaminated packaging may be re-used.
Contaminated packaging should ideally be emptied; it can then be recycled after having been decontaminated.
Packaging which cannot be decontaminated should be disposed of like material.

SECTION 14: TRANSPORT INFORMATION.

Transportation is not dangerous. In case of road accident causing the product's spillage, proceed in accordance with point 6.

14.1 UN number.

Transportation is not dangerous.

14.2 UN proper shipping name.

Description:

ADR: Transportation is not dangerous.

IMDG: Transportation is not dangerous.

ICAO/IATA: Transportation is not dangerous.

14.3 Transport hazard class(es).

Transportation is not dangerous.

14.4 Packing group.

Transportation is not dangerous.

14.5 Environmental hazards.

Transportation is not dangerous.

14.6 Special precautions for user.

Transportation is not dangerous.

14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code.

Transportation is not dangerous.

SECTION 15: REGULATORY INFORMATION.

15.1 Safety, health and environmental regulations/legislation specific for the substance.

All national and local regulations have to be followed.

15.2 Chemical safety assessment.

A Chemical Safety Assessment has been carried out for this substance.

No Chemical Safety Report as per Articles 2(8), 2(9) or 14 of the REACH Ordinance is required for this product.

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Not a hazardous substance or mixture.
Due to the lack of dangerous properties an exposure assessment is not necessary.

SECTION 16: OTHER INFORMATION.

It is recommended that the product only be employed for the purposes advised.

Abbreviations and acronyms used:

CEN: European Committee for Standardization.

DMEL: Derived Minimal Effect Level, exposure level corresponding to a low risk, that risk should be considered a tolerable minimum.

DNEL: Derived No Effect Level, level of exposure to the substance below which adverse effects are not anticipated.

PPE: Personal protection equipment.

Key literature references and sources for data:

<http://eur-lex.europa.eu/homepage.html>

<http://echa.europa.eu/>

Regulation (EU) 2015/830.

Regulation (EC) No 1907/2006.

Regulation (EU) No 1272/2008.

The information given in this Safety Data Sheet has been drafted in accordance with COMMISSION REGULATION (EU) 2015/830 of 28 May 2015 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC.

The information in this Safety Data Sheet on the Preparation is based on current knowledge and on current EC and national laws, as far as the working conditions of the users is beyond our knowledge and control. The product must not be used for purposes other than those that are specified without first having written instructions on how to handle. It is always the responsibility of the user to take the appropriate measures in order to comply with the requirements established by current legislation. The information contained in this Safety Sheet only states a description of the safety requirements for the preparation, and it must not be considered as a guarantee of its properties.