

SAFETY DATA SHEET

Revision Date 02-Apr-2020

Version 3

908 CARBON BLACK

Carbon Black

1. IDENTIFICATION

Product identifier Product Name

Carbon Black

Other means of identification Product Code

908 CARBON BLACK

Recommended use of the chemical and restrictions on useRecommended UseRestricted to professional users.Uses advised againstConsumer use

Details of the supplier of the safety data sheet Supplier Address Solomon Colors, Inc. 4050 Color Plant Road Springfield, IL 62702

Company Phone Number800-624-0261 (US & Canada); 217-522-3112 (Outside North America)24 Hour Emergency Phone Number800-373-7542

2. HAZARDS IDENTIFICATION

Classification

OSHA Regulatory Status

This product is classified as hazardous according to the criteria contained in the Hazard Communication Standard 29 CFR 1910.1200 (known as HCS 2012).

Combustible dust

Label elements

Warning

May form combustible dust concentrations in air

Appearance Powder

Physical state Powder

Emergency Overview

Odor Odorless

Hazards not otherwise classified (HNOC)

Other Information

3. COMPOSITION/INFORMATION ON INGREDIENTS

Common name

Carbon Black.

Chemical Name	CAS No.	Weight-%	Trade Secret
Carbon Black	1333-86-4	90-100	*

*The exact percentage (concentration) of composition has been withheld as a trade secret.

4. FIRST AID MEASURES

Description of first aid measures

Eye contact	Rinse thoroughly with plenty of water, also under the eyelids.
Skin Contact	Wash off with warm soap and water.
Inhalation	Remove to fresh air.
Ingestion	Clean mouth with water and drink afterwards plenty of water.
Most important symptoms and effect	cts, both acute and delayed
Symptoms	Contact with eyes and skin may cause mild, mechanical irritation. Dust may cause irritation of the respiratory tract. See section 8 of this sheet for exposure limits.
Indication of any immediate medica	l attention and special treatment needed
	- · · · · ·

Note to physicians

Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

Water spray (fog). Carbon dioxide (CO2). Foam. Dry chemical. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media No information available.

Specific hazards arising from the chemical

Risk of ignition should be prevented by avoiding accumulation of dust, e.g. on floors and ledges. Carbon black can burn or smolder at temperatures greater than 400°C (>752°F) releasing hazardous thermal decomposition products. At sufficient concentrations carbon monoxide, by itself, or when combined with carbon black can form an explosible hybrid mixture when dispersed in air.

Hazardous combustion productsCarbon monoxide. Carbon dioxide (CO2). Oxides of sulfur.

Explosion data

Sensitivity to Mechanical Impact No information available. Sensitivity to Static Discharge Yes. (as dust).

Protective equipment and precautions for firefighters

Wear self-contained breathing apparatus and protective suit.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions	Use personal protective equipment as required. Avoid sparks, flames, and static electricity discharges in the presence of dust.
Environmental precautions	
Environmental precautions	Prevent further leakage or spillage if safe to do so.

Methods and material for containment and cleaning up

Methods for cleaning up Sweep up and shovel into suitable containers for disposal. Avoid creating dust. Image: Conditions for safe storage, including any incompatibilities Find the provide the provided the provi	Methods for containment	Cover powder spill with plastic sheet or tarp to minimize spreading and keep powder dry.	
Precautions for safe handling Advice on safe handling Ensure adequate ventilation, especially in confined areas. Handle in accordance with good industrial hygiene and safety practice. Conditions for safe storage, including any incompatibilities Storage Conditions Keep containers tightly closed in a dry, cool and well-ventilated place.	Methods for cleaning up	Sweep up and shovel into suitable containers for disposal. Avoid creating dust.	
Advice on safe handlingEnsure adequate ventilation, especially in confined areas. Handle in accordance with good industrial hygiene and safety practice.Conditions for safe storage, including any incompatibilitiesStorage ConditionsKeep containers tightly closed in a dry, cool and well-ventilated place.		7. HANDLING AND STORAGE	
Conditions for safe storage, including any incompatibilities Storage Conditions Keep containers tightly closed in a dry, cool and well-ventilated place.	Precautions for safe handling		
Storage Conditions Keep containers tightly closed in a dry, cool and well-ventilated place.	Advice on safe handling		
	Conditions for safe storage, including any incompatibilities		
	Storage Conditions	Keep containers tightly closed in a dry, cool and well-ventilated place.	
Incompatible materials Strong oxidizing agents.	Incompatible materials	Strong oxidizing agents.	

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Carbon Black	TWA: 3 mg/m ³ inhalable particulate	TWA: 3.5 mg/m ³	IDLH: 1750 mg/m ³
1333-86-4	matter	(vacated) TWA: 3.5 mg/m ³	TWA: 3.5 mg/m ³
			TWA: 0.1 mg/m ³ Carbon black in
			presence of Polycyclic aromatic
			hydrocarbons PAH

NIOSH IDLH Immediately Dangerous to Life or Health

Other InformationVacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d
962 (11th Cir., 1992).

Appropriate engineering controls

Engineering Controls	Ensure adequate ventilation.	especially in confined areas.
	Enouro adoquato vontination,	

Individual protection measures, such as personal protective equipment

Skin and body protection Wear protective gloves and protective clothing.

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.

General Hygiene Considerations Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state Appearance Color	Powder Powder Black	Odor Odor threshold	Odorless No information available
<u>Property</u> pH Melting point/freezing point	<u>Values</u> > 7 > 3000 °C / 5432 °F	Remarks • Method	

Boiling point / boiling range Flash point Evaporation rate Flammability (solid, gas) Flammability Limit in Air Upper flammability limit: Lower flammability limit: Vapor pressure Vapor density **Specific Gravity** Water solubility Solubility in other solvents Partition coefficient Autoignition temperature **Decomposition temperature** Kinematic viscosity Dynamic viscosity **Explosive properties Oxidizing properties**

Other Information

Softening point Molecular weight VOC Content (%) Density Bulk density

> 3000 °C / 5432 °F Not Applicable (Solid) Not Applicable No information available 1.7-1.9 Insoluble No information available No information available >140 °C / 284 °F Not applicable Not Applicable Not Applicable No information available No information available

No information available No information available No information available No information available No information available

10. STABILITY AND REACTIVITY

Reactivity No data available

<u>Chemical stability</u> Stable under normal conditions.

Possibility of Hazardous Reactions

None under normal processing.

Hazardous polymerization

Hazardous polymerization does not occur.

<u>Conditions to avoid</u> Heat, flames and sparks.

Incompatible materials

Strong oxidizing agents.

Hazardous Decomposition Products

Carbon monoxide. Carbon dioxide (CO2). Sulfur oxides.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information	No acute toxicity information is available for this product The product is classified based on the mixture components.
Inhalation	May cause irritation of respiratory tract.
Eye contact	Contact with eyes may cause irritation.
Skin Contact	Prolonged contact may cause redness and irritation.
Ingestion	Do not ingest. If swallowed then seek immediate medical assistance.

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Carbon Black	> 15400 mg/kg (Rat)	> 3 g/kg (Rabbit)	-
1333-86-4			

Information on toxicological effects

Symptoms

Contact with eyes and skin may cause mild, mechanical irritation. Dust may cause irritation of the respiratory tract. See section 8 of this sheet for exposure limits.

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

Skin corrosion/irritation Serious eye damage/eye irritation Sensitization	Not classified. (Based on mixture components.). Not classified. (Based on mixture components). Not Classified. This product does not contain known sensitizers at levels > or equal to 0.1%.
Germ cell mutagenicity Carcinogenicity	Not classified. (Based on mixture components). Carbon Black - 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 Labeling (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

Chemical Name	ACGIH	IARC	NTP	OSHA
Carbon Black	A3	Group 2B	-	Х
1333-86-4				

IARC (International Agency for Research on Cancer) Group 2B - Possibly Carcinogenic to Humans

OSHA (Occupational Safety and Health Administration of the US Department of Labor)

X - Present

Reproductive toxicity

Not Classified. This product does not contain any known or suspected reproductive

STOT - single exposure STOT - repeated exposure Aspiration hazard	hazards. Not classified. (Based on mixture components). Not classified. (Based on mixture components). Not classified. (Based on mixture components).					
Numerical measures of toxicity - Product Information						
The following values are calculated based on chapter 3.1 of the GHS document .ATEmix (oral)1328.7 mg/kgATEmix (dermal)3211.8 mg/kg						
	12. ECOLOGICAL INFORMATION					
<u>Ecotoxicity</u>						
This product has not been fully evaluated on the product level.						
Persistence and degradability Not soluble in water. Expected to remain on soil surface. Not expected to degrade.						
Bioaccumulation Bioaccumulation is not expected due to physico-chemical properties of the substance.						
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	No information available.					
US EPA Waste Number	Not applicable					

14. TRANSPORT INFORMATION

DOT	Not regulated
TDG	Not regulated
MEX	Not regulated
ICAO (air)	Not regulated
IATA	Not regulated
IMDG	Not regulated
RID	Not regulated
ADR	Not regulated
ADN	Not regulated

International Inventories TSCA DSL/NDSL EINECS/ELINCS ENCS IECSC KECL PICCS

Complies Complies Does not comply Complies Complies Complies Complies Complies

Legend:

AICS

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
Australian Inventory of Chemical Substances

US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

SARA 311/312 Hazard Categories

See section 2 for more information

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

US State Regulations

California Proposition 65

This product contains the following Proposition 65 chemicals

Chemical Name	California Proposition 65	
Carbon Black - 1333-86-4	Carcinogen	
Formaldehyde - 50-00-0	Carcinogen	

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Carbon Black 1333-86-4	Х	Х	Х
Sodium Sulfate 7757-82-6	-	Х	Х

16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OF THE LAST REVISION

NFPA	Health hazards 0	Flammability 1	Reactivity 0	Physical and Chemical Properties -
HMIS_	Health hazards 0	Flammability 1	Physical hazards 0	Personal protection X

Prepared By Issue Date Revision Date Revision Note Periodic Review Solomon Colors - Lab Technical Services 06-Nov-2018 02-Apr-2020

The information provided in this 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