

<u>MATERIAL SAFETY DATA SHEET</u>

CarbonBlack

Product Name	Carbon Black
Chemical Name:	Carbon (Amorphous)

 Company Identification: (INDIA)
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1. Composition/Information on Components

Component	Carbon Black (Amorphous Carbon)
CAS Number	1333-86-4
Weight %	100

2. Hazards for Man and Environment

Possible Effect On Health	
Eye	Carbon black may produce eye irritation.
Skin Contact	The product is not skin irritant.
Infiltration Through Skin	Infiltration is not probable, carbon black being a dry solid material.
Ingestion	Specific effect is not known
Inhalation	At high concentrations of carbon black dust (above TLV) inhalation may produce irritation of lungs.

3. Fist AID

Eye	Flush with water
Skin	Wash with soap and water.
Ingestion	Usually no hazardous effect is produced
Inhalation	Go out into open air

4. Fire Fighting Procedures

Combustibility	N/A
Flash Point	May inflame at temperatures above 250 C.
Inflammability In Air	60 mg/cu.m
Lower Explosibility Limit (Lel)	N/A
Upper Explosibility Limit (Uel)	N/A
Extinguishing Media	Atomized water jet

Unusual Fire Hazards: Carbon monoxide and carbon dioxide are generated during combustion of carbon black. The product burns (smolders) without flame, therefore in some cases combustion of carbon black cannot be detected, cases combustion of carbon black cannot be detected, unless the product is stirred and sparks are produced.

Hazards Of Dust Explosion: Carbon black does not explode easily, so it is not considered hazardous in practical applications. However, in certain test conditions mixture of carbon black dust and air may explode.



5. Procedures in Case Material is Released or Spilled

Collect with vacuum cleaner, sweep up or sprinkle with water and collect in refuse container.

6. Handling and Storage

Store in containers and indoors. Not to expose to open fire or strong oxidizers. Check for carbon monoxide and oxygen content in air before entering container or workroom.

If carbon monoxide is present or oxygen is low use adequate gas masks. Produce less dust in air. Collect all spilled material immediately.

7. Limiting Exposure and Personal Protective Measures

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Inhalation Standards	Maximum carbon black dust content in air by U.S. standards is 3.5 mg/cu.m, by German standards 6 mg/cu.m, by Ukrainian standards 4 mg/cu.m, by U.K standards 3,5 mg/cu.m.
Breath Protection	Not required in normal conditions. If dust content in air is above recommended limit use protective mask that conforms to European, national, and local regulations.
Skin Protection	Not required. Use of protective gloves is not necessary.
Eye Protection	Use protective glasses or goggles.
Protective Clothing	Not required.
Technical Control	Adequate ventilation is recommended that should keep dust content in air under the standard limit

8. Physical Data

Appearance	Amorphous solid material / pellets
Odor	Odorless
Boiling Point	N/A
Vapor Pressure	N/A
Vapor Density	N/A
Solubility In Water	Insoluble
Rate Of Vaporisation	N/A
Specific Weight (Water=1)	1.9 to 2.1
Pour Density	150 to 650 (ASTM D1518)
Viscosity	N/A

9. Stability and Reactivity

Stability	Stable
Incompatibility (Materials To Avoid)	Strong oxidizers such as liquid oxygen, chlorates, bromates, nitrates
Conditions To Avoid	Excessive heating, exposure to open fire
Hazardous Decomposition Products	Carbon monoxide and dioxide are produced in combustion
Hazardous Polymerization	No polymerization occurs.



10. Toxicological Data

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EYE	ACUTE - Slight irritation CHRONIC - Slight irritation
SKIN	ACUTE - Not expected CHRONIC- Not expected
INGESTION	ACUTE - Not expected CHRONIC- Not expected
INHALATION	ACUTE - Dust in concentrations above TLV may cause transient irritation of upper respiratory tract.
	CHRONIC - Research in USSR showed high incidence of respiratory tract diseases, including pneumoconiosis, emphysema, rhinitis. It is to be noticed that dust concentrations were above TLV in that research. On the other hand, ACGIH Committee on TLV classified carbon black as dust that causes inconvenience with no proved pathological or harmful changes of structure or function of lungs. No carcinogenic effect of carbon black on animals or man was established. Research on humans in USA gave no evidence of carbon black dust concentrations equal to or below TLV in workrooms causing respiratory tract diseases.
Others	Oral LD50 > 10000 mg/kg (rat)
CARCINOGENIC EFFECT	The International Agency for Research on Cancer (IARC), the U.S. National Toxicology Program (NTP), the U.S. Occupational Safety and Health Administration (OSHA) do not classify carbon black as carcinogenic material.

11. Ecological Data

No negative effect on environment has been established.

12. Waste Disposal

Carbon black is classified as toxic or hazardous waste. Waste may be incinerated or buried, observing all European, national, and local regulations.

13. Transportation

Hazard Class - Class 4, Subclass 4.2, supplied with Emergency Card. It may be transported in bulk in special hopper cars or packed in containers. In most European countries and in the USA carbon black is not considered hazardous material and may be shipped by land, sea, or air transport without limitations.



14. Legal Information

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Labeling Requirements :		
Carbon black, CAS No. 1333-86-4, is included in following inventories:		
All-Union Classifier of Industrial and Agricultural Products (Ukraine);		
U.S. Toxic Substances Control Act (TSCA);		
European Inventory of Existing Chemical Substances (EINESC - No. 215-609-9);		
Canadian Domestic Substances List (DSL);		
Australian Inventory of Chemical Substances	List of Existing Chemical Substances of	
(AICS);	Japanese	
Ministry of international Trade and Industry (MITI);	Korean Toxic Chemicals Control Law (TCCL)	
Classification according to Ukrainian Standards:	Hazard symbol and labeling-according GOST 19433-88 Classification code 4213 UNO Classification No 1361	
Classification according to European Standards :		
Symbol and Labeling for Hazard :	None	
Components of Labeling for Risks :	None	
R - Clauses :	None	
S - Clauses :	None	

15. Other Information

MSDS Creation Date:	July 23, 2015
Revision #0 Date	

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