



# MATERIAL SAFETY DATA SHEET

## SECTION I. Product Name and Company Identification

Trade Name: Carbon on Alumina, COA, CarbonX

## SECTION II. Composition/Information on Components

Component: Carbon Black coated on Alumina

### Carbon Black

CAS Number 1333-86-4

Weight, 5-30 %

### Alumina

CAS Number 1344-28-1

Weight, 5-30 %

## SECTION III. Hazards Identification

CARCINOGENIC, DEVELOPMENTAL, MUTAGENIC, TERATOGENIC EFFECTS  
Not Available

### EYE:

Carbon black may produce eye irritation. Alumina is completely covered with carbon.

### SKIN CONTACT:

The product is not skin irritant.

### INFILTRATION THROUGH SKIN:

Infiltration is not probable, carbon on alumina being a dry solid material.

### INGESTION:

Specific effect is not known. Carbon coated alumina is used as an *in vivo* contrast agent for imaging.

### INHALATION:

Inhalation may produce irritation of lungs.

## SECTION IV. First AID

EYE: Flush with water.

SKIN: Wash with soap and water.

INGESTION: Usually no hazardous effect is produced.

INHALATION: Go out into open air.

## SECTION V. Fire Fighting Procedures

**COMBUSTIBILITY**

FLASH POINT N/A

INFLAMMABILITY IN AIR N/A

LOWER EXPLOSIBILITY LIMIT (LEL) 60 mg/cu.m \*

UPPER EXPLOSIBILITY LIMIT (UEL) N/A

EXTINGUISHING MEDIA Atomized jet of water.

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.

**SECTION VI. Procedures in Case Material is Released or Spilled**

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

**SECTION VII. 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.

**SECTION VIII. Limiting Exposure and Personal Protective Measures****INHALATION STANDARDS**

Maximum carbon 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. Product is substantially free of fines so dust is not typically present.

**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

**SECTION IX. Physical Data****APPEARANCE**

Solid material in the form of 40-120 µm black-colored pellets.

**ODOR**

Odorless

**BOILING POINT**

N/A

**VAPOR PRESSURE**

N/A

**VAPOR DENSITY**

N/A

**SOLUBILITY IN WATER**

Insoluble

**RATE OF VAPORISATION**

N/A

**VISCOSITY**

N/A

**SECTION X. Stability and Reactivity****STABILITY**

Product is 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.

**SECTION XI. Toxicological Data****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**

ACGIH Committee on TLV classified carbon black as dust that causes inconvenience with no proven 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.

OTHER 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.

**SECTION XII. Ecological Data**

No negative effect on environment has been established.

**SECTION XIII. Waste Disposal**

Neither in Ukraine nor in Europe (Directive 78/319/EEC) carbon black is classified as toxic or hazardous waste. Waste may be incinerated or buried, observing all US, European, national, and local regulations. 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.

**SECTION XV. Other Information**

TEXT ON LABEL : Carbon on Alumina

The preceding data are based on test results that we consider reliable. However, we cannot guarantee them or take responsibility for the consequences of their use. Users are to conduct their own research in order to determine whether the data or products are suitable for their specific applications. None of the data reported here are to be understood as permission, suggestion, or recommendation for infringement of any laws or application of any inventions protected by patents in force.