



PT. KELLEN MULIA DIVERSITY

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Jalan Salemba Utan Barat RT 007 Rw 07 No.31
Palmeriam, Matraman, East-Jakarta, 13140
Website: <https://kellenmuliadiversity.com>
Mobile: +62 814 1223 4397
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INDONESIA

MATERIAL SAFETY DATA SHEET

SECTION 1 : PRODUCT AND COMPANY IDENTIFICATION

Product Name : Activated Carbon
CAS No : 7440-44-0
Recommended Use : Suitable for various industrial application

MANUFACTURER

PT. KELLEN MULIA DIVERSITY
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SECTION 2 : HAZARD IDENTIFICATION



Eyes

Skin

Ingestion

Inhalation

Physical Appearance : Product is odorless, black granular or powder material

Emergency Overview : May be irritating to eyes, skin and respiratory tract

Potential Health Effects

Eyes : Contact may produce mechanical eye irritation.

Skin : Skin irritation would not be expected from single short term exposure to this product, Prolonged or repeated contact may produce some irritation

Ingestion : Ingestion of this product may cause gastrointestinal irritation, nausea, vomiting, and constipation. Small amount of this product in solution, if aspirated in to the lung may cause mild to severe pulmonary injury, possible death



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Inhalation : Overexposure to dust may produce irritation of the respiratory system. Wet activated carbon may cause asphyxiation by adsorbing oxygen from confined spaces

SECTION 3 : COMPOSITION/INGREDIENT COMPOSITION

Product Name : Activated Carbon
Iodine Content : 800 mg/gr sampai 1200 mg/gr
Ash Content : 1,3%
Moisture Content : <10%
Particle Size : 2x6, 2x8, 4x8, 6x12, 8x30 etc. Depend on customer order

SECTION 4 : EMERGENCY AND FIRST AID PROCEDURE



Eye Contact : Flush thoroughly with water for 15 minutes and sweep out the dust particle inward toward nose. If irritation persists, seek medical advice.
Skin Contact : Wash with soap and water the skin thoroughly. Laundry clothes before reuse, Should a rash appear seek medical advice.
Ingestion : If ingested get immediate medical attention or advice, Do not induce vomiting unless instructed to do so by medical personnel. If vomiting occurs, keep victim's head lower than hips to avoid aspiration.
Inhalation : Overexposure to dust may produce irritation of the respiratory system. Move person to fresh air immediately. Seek medical attention if irritation persists.

SECTION 5 : FIRE FIGHTING MEASURE



Suitable Extinguish Media

water, foam, dry extinguishing powder, ABC-powder

General hazard

Danger of dust explosion. Toxic gases may form hazardous combustion may include smoke & carbon monoxide (CO & CO₂). Under certain conditions, airborne dust may be an explosion hazard.



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Fire Fighting Equipment

Fire fighting personnel should wear full protective equipment, including self contained breathing apparatus for all inside fires and larger outdoor fire.

SECTION 6 : ACCIDENTAL RELEASE / SPILL PROCEDURE



Evacuation procedures and safety:

Use the appropriate personnel protective equipment when working with dusts.

Cleanup and disposal of spill:

Do not allow the material to enter sewerage system or open waters. Sweep up, using a dust suppressant or vacuum spilled material. Wear appropriate protective gear and clothing during clean up.

Waste disposal method:

Dispose of all waste in accordance with federal, state and local regulations. No EPA waste number are applicable for this product's components.

SECTION 7 : HANDLING AND STORAGE INFORMATION

Precaution for safe handling :

No special measures are necessary, Keep away from food, drink and animal feedingstuffs.

Conditions for safe storage :

Store in cool, dry, well ventilated area. Keep container sealed. Away from direct heat, recommended storage temperature: 15 – 25 °C

SECTION 8 : EXPOSURE CONTROL / PERSONAL PROTECTION



Eye Protection

Not normally required but may be advisable to wear safety glass or safety google under extreme conditions.



Skin Protection

For handling protection use aprropriate protective gloves, For work in a more contaminated environment, the use of clothes with long-sleeve coverall may be necessary.



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Respiratory Protection

Respiratory protection necessary at Dust formation. Particulate filter device (EN 143). P1 (filters at least 80 % of airborne particles, colour code: White).

Occupational exposure limit values (Workplace Exposure Limits)

Coun try	Name of agent	CAS No	Identifi- er	TWA [mg/m ³]	STEL [mg/m ³]	Ceil- ing-C [mg/m ³]	Nota- tion	Source
GB	dust		WEL	10			i	EH40/2005
GB	dust		WEL	4			r	EH40/2005
GB	graphite	7440-44-0	WEL	10			i, dust	EH40/2005
GB	graphite	7440-44-0	WEL	4			r	EH40/2005

Notation

Ceiling-C: Ceiling value is a limit value above which exposure should not occur

I : Inhalable fraction

R : Respirable fraction

STEL : (Short-term exposure limit) a limit value above which exposure should not occur and which is related to a 15- minute period (unless otherwise specified)

TWA : (Time-weighted average) long-term exposure limit measured or calculated in relation to a reference period of 8 hours time-weighted average (unless otherwise specified)

Human health values

Relevant DNELs and other threshold levels				
Endpoint	Threshold level	Protection goal, route of exposure	Used in	Exposure time
DNEL	1,84 mg/m ³	human, inhalatory	worker (industry)	chronic - local effects

Environmental values

Relevant PNECs and other threshold levels				
End- point	Threshold level	Organism	Environmental com- partment	Exposure time
PNEC	10 mg/kg	terrestrial organisms	soil	short-term (single instance)



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SECTION 9 : PHYSICAL AND CHEMICAL PROPERTY

Information on basic physical and chemical properties

Physical state	: solid
Form	: granule / powder
Colour	: black
Odour	: odourless
Melting point	: >3.500 °C
Flammability	: this material is combustible, but will not ignite readily
Auto-ignition temperature	: 560 °C
Density	: 2,31 g/cm ³ at 20 °C (ECHA)
Bulk density	: 350 – 450 kg/m ³
Oxidising properties	: none

Other safety characteristics

Dust explosion class ST 1 meaning Weak explosive (rate of pressure; Kst > 0 - < 200 bar m/s)
Maximum explosion pressure is 7,2 bar

SECTION 10 : STABILITY AND REACTIVITY

Reactivity

Dust can form an explosive mixture with air.

Chemical stability

The material is stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

Possibility of hazardous reactions

Violent reaction with strong oxidiser, Peroxides

Conditions to avoid

There are no specific conditions known which have to be avoided.

Incompatible materials

There is no additional information.

SECTION 11 : TOXICOLOGICAL INFORMATION

Acute toxicity

Shall not be classified as acutely toxic.

GHS of the United Nations, annex 4. May be harmful if swallowed.



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Acute toxicity					
Exposure route	Endpoint	Value	Species	Method	Source
oral	LD50	>2.000 mg/kg	rat		ECHA

Skin corrosion/irritation

Shall not be classified as corrosive/irritant to skin.

Serious eye damage/eye irritation

Shall not be classified as seriously damaging to the eye or eye irritant.

Respiratory or skin sensitisation

Shall not be classified as a respiratory or skin sensitiser.

Germ cell mutagenicity

Shall not be classified as germ cell mutagenic.

Carcinogenicity

Shall not be classified as carcinogenic.

Reproductive toxicity

Shall not be classified as a reproductive toxicant.

Specific target organ toxicity - single exposure

Shall not be classified as a specific target organ toxicant (single exposure).

Specific target organ toxicity - repeated exposure

Shall not be classified as a specific target organ toxicant (repeated exposure).

Aspiration hazard

Shall not be classified as presenting an aspiration hazard.

Symptoms related to the physical, chemical and toxicological characteristics

If swallowed : Data are not available.

If in eyes : Data are not available.

If inhaled : cough, breathing difficulties

If on skin : Data are not available.

Other information : None



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SECTION 12 : ECOLOGICAL INFORMATION

Toxicity

Shall not be classified as hazardous to the aquatic environment.

Persistence and degradability

Theoretical Oxygen Demand: 2,664 mg/mg

Theoretical Carbon Dioxide: 3,664 mg/mg

Bioaccumulative potential

Does not significantly accumulate in organisms.

n-octanol/water (log KOW)	0,78 (Lit.)
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Mobility in soil

Data are not available.

Results of PBT and vPvB assessment

Data are not available.

Endocrine disrupting properties

Does not contain an endocrine disruptor (ED) at a concentration of $\geq 0,1\%$.

Other adverse effects

Data are not available

SECTION 13 : DISPOSAL CONSIDERATION



Waste treatment methods

Consult the appropriate local waste disposal expert about waste disposal.

Sewage disposal-relevant information

Do not empty into drains.

Waste treatment of containers/packages

Handle contaminated packages in the same way as the substance itself. Completely emptied pack- ages can be recycled.



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Relevant provisions relating to waste

The allocation of waste identity numbers/waste descriptions must be carried out according to the local standard, specific to the industry and process.

Remarks

Waste shall be separated into the categories that can be handled separately by the local or national waste management facilities. Please consider the relevant national or regional provisions. Non-contaminated packages may be recycled.

SECTION 14 : TRANSPORT INFORMATION

Not classified as dangerous goods due to IATA special provisions 223 (A3) and 925: SI' 223 (A3): if the chemical or physical properties of a substance covered by this description are such that, when tested, it does not meet the established defining criteria for the class or division, it is not subject to these regulations.

If these product comply to certain criteria then they can be accepted as non hazardous (Non IMO Classified). To be considered as Non IMO classified they have to comply with special provision 925 of the IMDG code.

The provisions of this code do not apply to:

- Non Activated Carbon black of mineral origin or carbons made by a steam activated carbon process.
- A consignment of carbon if passes the test for self heating substances as reflected in the UN manual of test and criteria (see: 33.3.1.3.3) and is accompanied by a certificate from a laboratory accredited by competent authority, stating that the products to be located has been correctly sampled by trained staff that laboratory and that the sample was correctly tested and passed the test.

SECTION 15 : REGULATORY INFORMATION

Safety, health and environmental regulations/legislation specific for the substance or mixture Relevant provisions of the European Union (EU)

Seveso Directive

2012/18/EU (Seveso III)			
No	Dangerous substance/hazard categories	Qualifying quantity (tonnes) for the application of lower and upper-tier requirements	Notes
	not assigned		

2012/18/EU (Seveso III)



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Directive on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS)

not listed

Regulation concerning the establishment of a European Pollutant Release and Transfer Register (PRTR)

not listed

Regulation on the marketing and use of explosives precursors

not listed

Regulation on drug precursors

not listed

SECTION 16 : OTHER INFORMATION

This information on this SDS based on report of analysis document, manufacturers of activated carbon and other sources and is believed to be accurate or otherwise technically correct. No warranties are expressed or implied, and no liabilities are assumed, by the manufacturer or supplier, in regards to the completeness or accuracy of the information herein, or as to the merchantability or fitness of activated carbon for a particular purpose.

The purchaser and or user are solely responsible for ensuring that the information and data given is applicable and that the latest version of the SDS is used, and for determining the suitability of activated carbon for their purposes. The purchaser and/or user assumes all responsibility for using and/or handling activated carbon in accordance with all applicable regulations and laws, and further assumes all risk of injury, loss, damage or expense, resulting from the use of or reliance upon the information contained herein.

The manufacturer and or supplier are not in any way responsible for any direct, indirect, special, incidental, or consequential damage, or any other damages whatsoever and however caused, arising out of or in anyway connected with the use of the activated carbon, or in reliance upon the information herein, whether the action is in contract, tort (including negligence), bailment, or on any other grounds or causes of action whatsoever.

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