1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Product name: Neutrakon® Aktivkohle

Reach Registration No: 01-2119488894-16-0035

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

Recommended uses
Carbonaceous Adsorbent for purification and treatment of gases, water and liquids.
Uses advised against
No uses advised against have been identified.

1.3. Details of the supplier of the safety data sheet

Mommertz GmbH,
Daimlerstr. 8,

89312 Günzburg

Tel.: +49(0)8221 8238

Fax: +49(0)8221 8616

E-Mail: info@mommertz.de

Internet: www.neutrakon.de

1.4. Emergency telephone number

0049 (0) 228/19-240 (Giftzentrale Bonn)

2. HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Not classified according to Regulation (EC) No 1272/2008 (CLP)
Not classified as dangerous according to Directives 67/548/EEC or 1999/45/EC

Additional information:
No additional information is available

Information pertaining to special danger for humans and environment:
No special dangers have been identified.

2.2. Label elements
As the substance is not classified as hazardous no label is required.

2.3. Other hazards
According to the Guidance on information requirements and chemical safety assessment Chapter R.11: PBT Assessment, section R11.1.2.1 Definite criteria:

As Activated Carbon is to be considered as an inorganic substance, the PBT assessment is not applicable.

Contact with strong oxidizers such as ozone, liquid oxygen, chlorine, etc., may result in fire.

Wet activated carbon depletes oxygen from air and, therefore, dangerously low levels of oxygen may be encountered. Whenever persons enter a vessel containing activated carbon, the vessels oxygen content should be determined and work procedures for potentially low oxygen areas should be followed.

Spent (or used) activated carbon may exhibit properties pertaining to the adsorbents.

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substance related information
Activated Carbon, steam activated. A porous, amorphous, high surface area adsorbent material composed of largely elemental carbon, with a high density skeleton.
CAS No: 7440-44-0
EC No: 231-153-3

4. FIRST AID MEASURES

4.1. Description of first aid measures
General information:
As non-powdered activated carbon is low in dust content it poses very little hazard in an accidental workplace exposure. The first aid information below is based on contact with powdered activated carbon.

In case of inhalation:
Fresh air, take rest. Obtain medical attention if cough or respiratory symptoms develop.

In case of skin contact:
Remove contaminated clothes; rinse the skin with water and soap. Obtain medical attention if irritation becomes apparent.

In case of eye contact:
Immediately flush with copious amounts of water (remove contact lenses, provided that it can be done easily). Obtain medical attention if irritation becomes apparent.

In case of ingestion:
Wash mouth and give at least half a liter of water to drink. Obtain medical attention if gastrointestinal symptoms develop.

Self-protection of the first aider:
Ensure self-protection before entering any hazardous environment.

5. FIRE FIGHTING MEASURES

5.1. Extinguishing media

Suitable extinguishing media:
Spray-jet of water, water fog, powder extinguisher, carbon dioxide or foam.

Extinguishing media which must not be used for safety reasons:
None.

5.2. Special hazards arising from the substance or mixture

Avoid stirring up dust clouds.
Wet activated carbon may cause oxygen depletion in enclosed spaces.

Dangerous decomposition products: carbon monoxide. Used activated carbon may produce other combustion products.

After a fire, smoldering hotspots within the activated carbon may be present for a long time.

Activated carbon which has been allowed to smolder for a long time in a confined space may accumulate carbon monoxide above its lower explosion limit.

5.3. Advice for firefighters

Personal protective equipment for firefighters
Standard firefighters personal protective equipment including self-containing breathing apparatus for all indoor fires and large outdoor fires.

Further advice for firefighters
If possible, move smoldering activated carbon to a safe area (preferably outside)

6. ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions and emergency procedures

No personal precautions required for virgin activated carbon. Please refer to heading 8 for details on personal protection.

6.2. Environmental precautions

Avoid discharge to drains and contamination of water sources.

6.3. Methods and materials for containment and cleaning up

Vacuum spilled product and flush remaining product with plenty of water. Avoid stirring up. If the spilled product contains dust or if dust formation is possible, an explosion proof vacuum cleaner and/or cleaning systems has to be used which are useful for flammable dust. To avoid stirring of dust, don not use brooms or compressed air.

6.4. Other Information

Wet activated carbon depletes oxygen from air and, therefore, dangerously low levels of oxygen may be encountered. Whenever workers enter a vessel containing activated carbon, the vessels oxygen content should be determined and work procedures for potentially low oxygen areas should be followed.
Used or spend activated carbon may contain pollutants which require the material to be treated according to national law or local permits and which require the use of risk management measures when handling the materials.

7. HANDLING AND STORAGE

7.1. Precautions for safe handling

Protective measures:
Appropriate protective equipment should be worn. (See section 8)

7.2. Technical Measures:

Measures to prevent dust generation: Apply good working practices and engineering procedures during discharge.

Measures requirements to protect the environment:
Ensure containment and adequate ventilation.

Specific requirements or handling rules:
Whenever workers enter a vessel containing activated carbon, the vessels oxygen content should be determined and work procedures for potentially low oxygen areas should be followed.

Precautions against fire and explosion:
Avoid stirring up dust clouds. Keep activated carbon away from ignition sources.

7.3. Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions:
Do not store at high temperatures or in direct sunlight.

Packaging materials:
Store in original packaging.

Requirements for storage rooms and vessels:
Keep away from strong oxidizers and strong acids. Keep away from heat sources.

Hints on storage assembly:
Store in a cool, well-ventilated area remote from sources of contaminations.

Storage class: -

Further information on storage conditions:

Access to storage of wet activated carbon should be restricted. Oxygen level alarms are advisable in enclosed storage rooms containing wet activated carbon.

7.4. Specific end use(s)-

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Components with occupational exposure limits or biological occupational exposures limits requiring monitoring.

Occupational exposure limits
Air limit values:

Limit value type (country of origin)	Substance Name	Occupational exposure limit value		Recommended monitoring procedures	Peak limitation	Source
		Long term (mg/m³)	Short term			
Germany	Active Carbon Alveolar fraction	1.25	-	Personal air sampling for alveolar fraction	-	TRSG 900
	Active Carbon respirable fraction	10		Personal air sampling for respirable fraction	-	

Biological limits values: No biological limit value has been set.
Additional exposure limits under the conditions of use: None

DNEL/DMEL and PNEC values

According the REACH Regulation (Registration, Evaluation and Authorization of Chemicals) the Activated Carbon Consortium for activated carbon has created the following DNEL-values (Derived No Effect Level, derived exposition without impairment), based on a 90 day study at rats with repeatable inhalation: DNEL (workers) 1.8 mg/m^3 (respirable) und DNEL (consumer) 0.9 mg/m^3 (respirable)

According to the REACH Directive, an estimated PNEC of 10 mg / kg soil on the basis of an earthworm reproduction study was derived. No other PNEC is derived, as the substance is highly insoluble.

8.2. Exposure controls

Occupational exposure controls:
- A good basic standard of occupational hygiene is to be implemented for all of activated carbon outside a container.

Personal protection equipment:

- When handling non-powdered or slurried activated carbon no personal protection equipment is required.
- Respiratory protection: use a half face mask fitted with P2 filter (minimum effectiveness of 90%) or better for handling powdered activated carbon.

- Hand protection: No specific uses requiring hand protection have been identified but the use of gloves is recommended as good practice.

- Eye protection: Use goggles with side protection if contact with powdered activated carbon might occur.

- Body protection: Standard protective work clothes.

Environmental exposure controls:
- Local exhaust ventilation to remove material at source
- Regulated waste disposal. Local authorities should be contacted if the losses cannot be collected.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Endpoint	Value	Remark
Physical state	solid	
Colour	black	
Odour	odourless	
pH (20°C)	6-12	Depends on the quality and the recommended dilution
Melting point/range (°C)	>1000	The melting point of Activated Carbon - is estimated to be well above 1000°C.
Boiling point/range (°C)	>1000	The boiling point of Activated Carbon –is estimated to be well above 1000°C.
Flash Point (°C)	Not applicable	
Ignition temperature (°C)	350 - 450	
Vapour pressure (hPa)	Not applicable	
Bulk density (kg/m³)	350-550	
Water solubility (20°C in g/l)	insoluble	
Partition coefficient n-Octanol/Water (log Pow)	Not relevant	at pH 6.8 and a temperature of 20°
Viscosity, dynamic (mPas)	-	Substance is a solid

9.2. Other information

The physical and chemical properties of the spent material may be different to that of virgin activated carbon.

10. STABILITY AND REACTIVITY

10.1. Reactivity:

This product shows no reactivity under the specified conditions of storage, shipment und use.

10.2. Chemical stability:

This product is stable under the specified conditions of storage, shipment and use.

10.3. Possibility of hazardous reactions:

Contact with strong oxidizers, i.e. chlorine, liquid oxygen, ozone may result in rapid combustion/possible explosion.

10.4. Condition to avoid:

Keep away from heat and ignition sources, avoid dust formation, do not store in direct sunlight.

10.5. Incompatible materials:

Keep away from strong oxidizers and strong acids.

10.6. Hazardous decomposition products:

Carbon monoxide and carbon dioxide

11. TOXICOLOGICAL INFORMATION

11.1 Acute effects (toxicity)

Not classified

	Effect dose	Species	Method
Acute oral toxicity	LD50: > 2000mg/kg bw (female) (No treatment related effects were observed)	Rat, female	OECD Guideline 423
Acute dermal toxicity	LD50: Absorption very unlikely, no effects on health are known	-	-
Acute inhalative toxicity	LC50 (1h): >8,5 mg/L	Rat	OECD Guideline 403

Specific symptoms in animal studies:
In case of ingestion: -
In case of skin contact: Not classified, skin irritation test, rabbit (OECD 405): not irritating
In case of eye contact: Not classified, eye irritation test, rabbit (OECD 405): not irritating

Sensitization
In case of skin contact: Not sensitizing, based on the Local Lymph node test (OECD 429)

CMR effects (carcinogenic, mutagenic and toxic effects on reproduction)

Carcinogenicity	Not classified Contains one compound (crystalline silica dioxide) which is from the IARC as group 1, from the ACGIH as group A2 and from NTP listed as a known human carcinogen
Mutagenicity	Not classified Genmutation in bacteria (bacterial reverse mutation test/Ames-test) (OECD 471): not mutagenic
Toxicity for reproduction	Not classified

	The test on inhalative toxicity with repeated dosage showed no effects on the reproduction and one toxikinetic study showed no migration of the product on the reproductive organs.
STOT – single exposure	Not classified
STOT – repeated exposure	Not classified Toxicity study with repeated doses, inhalation (rat) 90 days: NOAEC 7.29 mg / m^3 (respirable). This test was carried out with activated carbon containing negligible amounts of crystalline silicon dioxide; Therefore, the activated carbon itself was not classified as STOT-RE. Although respirable crystalline silica is classified as STOT-RE1, this product contains <1% crystalline silicon dioxide and is therefore not classified for STOT.
Aspiration hazard	Based on the experience in industry and the available data, no aspiration hazard is expected.

11.2 Experience made in practice

Observations relevant to classification:-

Other observations:-

12. ECOLOGICAL INFORMATION

12.1. Toxicity

Aquatic toxicity

Not toxic: The substance is highly insoluble in water and it is unlikely, that the substance passes biological membranes. No harmful ecological effects are known.

Terrestial toxicity

Earthworm reproduction study (OECD 222), NOAEC for body weight loss 1000 mg/kg ground; NOAEC for reproduction 3200 mg/kg ground. In the ground not toxic.

12.2. Persistence and degradability

Degradability is not expected

12.3. Bio-accumulative potential

The substance has a very low potential to bio-accumulate because of the chemical and physical properties

12.4. Mobility in soil

Known or predicted distribution to environmental compartments: -

No further biodegradation will occur. Insoluble.

12.5. Results of PBT assessment

As activated carbon is to be considered as an inorganic substance, the PBT assessment is not applicable.

12.6. Other adverse effects

No information available.

13. DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

For virgin activated carbon no specified disposal methods apply, however, avoid discharge to drains.

13.2. Waste codes / waste designations according to EWC 2008/98, AVV

The product is subject of the European guideline EWC 2008/98. The waste classification must be observed.

13.3. Appropriate packaging

-

13.4. Additional information

Spent activated carbon may require specific disposal considerations/packaging.

14. TRANSPORT INFORMATION

ADR/RID	Not regulated
ADN	Not regulated
DOT	Not regulated
IMDG/IMO	Not regulated
ICOA/IATA	Not regulated

Environmental hazards:

Not classified as an environmental hazard for transportation.

15. REGULATORY INFORMATION

15.1. Safety, health and environmental regulation/legislation specific for the substance or mixture

EU regulations:

- Authorizations and/or restrictions on use
- Authorizations: None
- Restrictions on use: None
- Other EU regulations: None

National regulations:

None.

15.2 Chemical safety assessment

Chemical safety assessment: A chemical safety assessment according to the rules stipulated in the REACH directive has been performed.

16. OTHER INFORMATION

16.1. Relevant H- and P- statements (number and full text)

Not applicable.

16.2. Changes in this version

Chapter 1.1 New product added (AG)

16.2 Further information

This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006.

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