

**1. IDENTIFICATION OF THE MATERIAL/MIXTURE AND COMPANY/MANUFACTURER****1.1. Identification**

Product name: Activated Carbon  
Trade name: PureoPlus-100

**1.2. Recommend use**

Liquid and vapor application (purification, decolorization, separation, catalyst and deodorization)

**1.3. Importer detail of the Safety Data Sheet (SDS)**

Aquacorp Pty Ltd  
Address: 52 Sherriff St, Underdale, SA, 5032  
Telephone: 08 8234 9411

Emergency telephone number: National Poisons Centre 13 11 26

**2. HAZARDOUS IDENTIFICATION****2.1. Material or mixture classification**

This chemical is not considered hazardous by the United States 2012 OSHA Hazard Communication Standard (29 CFR1910.1200).

**2.2. Label elements**

Pictogram: None  
Singal Word: None  
Hazard statements: None

**2.3. Hazards not otherwise classified (NHOC)**

Avoid contact with skin and eyes. Avoid breathing udst. Acticated carbon (especially when wet) can deplete oxygen from air in enclouse spaces, and dangerously low levels of oxygen may result. Prior to entering a confined space tha contains or previously contained acticated carbon, the space should db e evaluated for oxygen and carbon monoxide concertration, and any other hazards, by a qualified person.

Avoid dust formation. Powdered material may form an explosible dust-air mixture. If transferring product under pressure, avoid generation of dust if an ignition source is present.

**Potential health effects:**

**Principle routes of exposures:** Inhalation, Eye contact, Skin contact

**Eye Contact:** May cause mechanical irritation. Avoid contact with eyes

**Skin Contact:** May cause mechanical irritation. Avoid contact with skin.

**Inhalation:** Dust maybe irritating to respiratory track. Provide appropriate local exhaust ventilation at machinery and at places where dust can be generated. See also Section 8.

**Carcinogenicity:** See Section 11.

**Target Organ Effects:** Lungs, Eyes, Skin

**Potential Environmental Effects:** No special environmental precautions required. See also Section 12.

**3.COMPOSITION/INFORMATION ON INGREDIENTS**

Chemical Name	CAS No.	Weight-%	Trade secrete
Activated Carbon	7440-44-0	<100	

This product, which is manufactured from a naturally occurring raw material(s), contains <10% total crystalline silica (quartz, CASRN 14808-60-7)

**4. FIRST AID MEASURES****First aid measures explanation**

<b>Skin Contact</b>	Wash thoroughly with soap and water. Seek medical attention if symptoms develop.
<b>Eye Contact</b>	Flush eyes immediately with large amounts of water for 15 minutes. Seek medical attention if symptoms develop.
<b>Inhalation</b>	if cough, shortness of breath or other breathing problems occur, move the fresh air. Seek medical attention if symptoms persist. If necessary, restore normal breathing through standard first aid measures.
<b>Ingestion</b>	Do not induce vomiting. If conscious, give several glasses of water. Never give anything by mouth to an unconscious person.

**Most important symptoms and effects, both acute and delayed**

**Symptoms:** The most important known symptoms and effects are described in Section 2 and/or in Section 11

**Indication of any immediate medical attentions and special treatment needed**

**Note to physicians:** Treat symptomatically.

**5. FIRE FIGHTING MEASURES**

<b>Suitable Extinguishing Media:</b>	Use foam, carbon dioxide (CO <sub>2</sub> ), dry chemical or water spray. A fog is recommended if water is used.
<b>Unsuitable Extinguishing Media:</b>	DO NOT USE a solid water stream as it may scatter and spread fire. In the event of a fire, spreading large amounts of activated carbon is not recommended due to risk of creating uncontrolled dust emissions.
<b>Specific hazards arising from the chemical:</b>	Burning produces irritant fumes. If transferring product under pressure. Avoid generation of dust of an ignition source is present.  Activated carbons have high surface area which may cause self-heating during oxidation. An adequate air gap between packages of

activated carbon is recommended to reduce risk of propagation of the event. Activated carbon is difficult to ignite and tends to burn slowly (smolder) without producing smoke or flame.

**Hazardous combustion products:**

In the event of fire, wear self-contained breathing apparatus. Wear suitable protective equipment.

## 6. ACCIDENTAL RELEASE MEASURES

**6.1. Personal precautions, protective equipment and emergency procedures**

Avoid dust formation. Ensure adequate ventilation. Use personal protective equipment see also Section 8.

**6.2. Environmental precautions**

No Special environment precautions required. Local authorities should be advised if significant spillages cannot be contained.

**6.3. Cleaning methods and material**

Avoid dry sweeping and use water spraying or vacuum cleaning systems to prevent airborne dust generation. Use of a vacuum with high efficiency particulate air (HEPA) filtration is recommended. Do not create a dust cloud by using brush or compressed air. Pick up and transfer to properly labelled containers.

## 7. HANDLING AND STORAGE

**7.1 Precautions for safe handling****Advice on safe handling:**

Avoid contact with skin and eyes. Avoid dust formation. Do not breath dust provide appropriate local exhaust ventilation at machinery and at places where dust can be generated. Do not create a dust cloud by using a brush or compressed air. Dust may form explosible mixture in air.

**7.2 Conditions for safe storage, including any incompatibilities****Storage Conditions:**

Keep in a dry, cool and well-ventilated place. Keep away from heat and sources of ignition. Activated carbon is difficult to ignite and tends to burn slowly (Smolder) without producing smoke or flame.

**Incompatible materials:**

Strong oxidizing agents. Strong acids.

## 8. EXPOSURE CONTROL AND PERSONAL PROTECTION

**8.1. Control parameters**

Permissible work exposure:

Dust are not classified as vice versa: 10 mg/m<sup>3</sup>

- UK / WEL (Permissible work exposure, EH40/2005, 200 7) :

CASTWA :	STEL :	Ceiling :	Definition :	Criteria :
7440-44-0	4 mg/m <sup>3</sup>	-	-	R

Biological limit:

Level of no identified (DNEL) or level of minimum identified effect (DMEL):

Last usage: Personnel  
 Exposure method: Inhalation  
 Potential health effect: Short-term localize effect  
 DNEL: 3 mg material/m<sup>3</sup>

Exposure method: Inhalation  
 Potential health effect: Long-term systemic effect  
 DNEL: 3 mg material/m<sup>3</sup>

Last usage: Personnel  
 Exposure method: Inhalation  
 Potential health effect: Short-term localize effect  
 DNEL: 0,5 mg material/m<sup>3</sup>

Exposure method: Inhalation  
 Potential health effect: Long-term systemic effect  
 DNEL: 0,5 mg material/m<sup>3</sup>

### 8.2 Engineering Controls

Ensure adequate ventilation to maintain exposures below occupational limits. Provide appropriate local exhaust ventilation at machinery and at places where dust can be generate.

### 8.3 Personal protective equipments (PPE)

<b>Respiratory Protection:</b>	Approved respirator may be necessary if local exhaust ventilation is not adequate.
<b>Hand Protection:</b>	Wear suitable gloves.
<b>Eye/face Protection:</b>	Wear eye/face protection. Wear safety glasses with side shields (or goggles)
<b>Skin and Body Protection:</b>	Wear suitable protective clothing. Wash clothing daily.
<b>Others:</b>	Handle in accordance with good industrial hygiene and safety practice. Emergency eyewash and safety shower should be located nearby.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### 9.1. Information on physical and chemical properties

#### General information

Physical state: Solid  
 Appearance: Granular  
 Colour: Black  
 Odour: Generally Odorless.  
 Odour threshold: Not Applicable

#### Relevant information for health, safety and ecology

pH: Not Applicable  
 pH (aqua solubility): 6-10  
 Melting point/freezing point: Not Applicable  
 Boiling point/boiling range: Not Applicable  
 Vapor pressure: Not Applicable  
 Vapor Density: Not Applicable  
 Surface tension: Not information available

Flash point:	Not Applicable
Flammability (Solid,gas):	No information available
Fammability limit in air:	No information available
Explosion properties, under explosion limit (%):	No information available
Explosion properties, upper explosion limit (%):	No information available
Vapour pressure (50%):	Not Applicable
Vapour density:	N Applicable
Density:	300-700 k g/m3
Water solubility:	Insoluble Method to identify water solubility Guidelines OCDE 105 (Water solubility)
Partition coefficient: n-octanol/water:	NA
Viscosity:	NA
Evaporation rate:	NA
Melting point/melting range:	Not Applicable
Auto-ignition temperature:	No information available
Minimum ignition temperature:	480-500 °C ASTM E-1491
Decomposition point/decomposition range:	Not specified

## 10. STABILITY AND REACTIVITY

<b>Reactivity:</b>	May react exothermically upon contact with strong with strong oxidizers.
<b>Stability:</b>	Stable under recommended handling and storage conditions.
<b>Possibility of hazardous reactions:</b>	None under normal processing.
<b>Hazardous polymerizations:</b>	Hazardous polymerization does not occur.
<b>Conditions to avoid:</b>	Keep away from heat and sources of ignition. Avoid dust formation.
<b>Incompatible materials:</b>	Strong oxidizing agents. Strong acids.
<b>Explosion data</b>	See also Section 9.
<b>Sensitivity to mechanical Impact:</b>	None

## 11. TOXICOLOGICAL INFORMATION

*Information given is based on data obtained from this substance or from similar substances.*

<b>Acute toxicity</b>	Not classified
<b>Oral LD50:</b>	LD50/oral/rat = > 2000 m g/kg. (OECD423)
<b>Inhalation LC50:</b>	LC50 /inhalation/1h/rat => 8.5 mg/l (OECD403)
<b>Skin coorosion/irritation:</b>	Not classified Skin irritation test, Rabbit (OECD 404): Not irritating
<b>Serious eye damage/irritation:</b>	Not classified. Eye irritation test, rabbit (OECD405): Not irritating.
<b>Sensitization:</b>	Not classified. Not sensitizing based on local Lymph Node Assay (OECD 429)
<b>Mutagenicity:</b>	Not classified. Gene mutation in bacteria (Bacterial Reverse Mutation Assay/Ames) (OECD 471): not mutagenic. In vitro Mammalian Chromosome Aberration Test (OECD473): not clastogenic. In vitro Mammalian Cell Gene Mutation Test (OECD 476): non-mutagenic

<b>Carcinogenicity:</b>	Not classified. Contains a component ( crystalline silica) that is listed by IARC as group 1, by ACGIH as group A2, and by NTP as a known human carcinogen.
<b>Reproductive toxicity:</b>	Not Classified. Repeated dose inhalation toxicity test showed no repductive target organ effects, and a toxicokinetic study showed no product migration to reproductive organs.
<b>STOT- single exposure:</b>	Not classified.
<b>STOT-repeated exposure:</b>	Not classified.
<b>Aspiration Hazard:</b>	Based on industrial experience and available data, no aspiration hazard is expected/

## 12. ECOLOGICAL INFORMATION

### 12.1. Toxicity

#### 12.1.1 Substances

As Activated is insoluble in water, no toxicity is expected

#### 12.2. Persistence and degradability

Activated Carbon – HDS type is refractory material and not amenable to break down by any natural chemical or enzymatic processes.

AC-HDS cannot be rendered into a soluble form capable of being absorbed.

Therefore it cannot find its way to any cell site where it could be conceivably be biodegraded.

#### 12.3. Bioaccumulative potential

The substance has a very low potential to bioaccumulate in aquatic species (e.g. fish). i.e. BCF < 10.

The substance has no log Kow, the substance size will impede passing membranes (particles with size > 0.5 μm) and is not soluble in water. The bioaccumulation study is thus infeasible.

#### 12.4. Mobility in soil

No data available, as the substance is insoluble.

#### 12.5. Results of PBT and VPvB assessment

According to the ECHA Guidance on chemical safety assessment, Chapter R11, section R11.2.1: “the PBT and vPvB criteria of Annex XIII to the Regulation do not apply to inorganic substances”. As Activated Carbon – HDS type is to be considered as an inorganic substance, the PBT assessment is not applicable.

#### 12.6. Other adverse effects

No data available.

## 13. DISPOSAL CONSIDERATIONS

Applicable unused or waste management of the material should follow Directive 2008/98/EC

Activated carbon, in its original state, is not a hazardous material or hazardous waste. Follow applicable regulations for waste disposal.

Spent(used) activated carbon may be classified as a hazardous waste depending upon its use, the substance(s) adsorbed, and how it is ultimately managed. Follow applicable regulations for disposal.

Recycling (reactivation) maybe a viable alternation to disposal. Dust formation from residues in packaging should be avoided and suitable worker protection assured. Store used packaging in enclosed receptacles.

## 14. TRANSPORTATION INFORMATION

Not Classified as dangerous in the meaning of transportation regulation.

### DOT

UN/ID No	Not regulated
Proper Shipping name	Not regulated
Hazard Class	Not regulated
Packing group	Not regulated

### ICAO(air)

UN/ID NO	Not regulated
Proper Shipping Name	Not regulated
Hazard Class	Not regulated
Packing group	Not regulated

### IATA

UN/ID NO	Not regulated
Proper Shipping Name	Not regulated
Hazard Class	Not regulated
Packing group	Not regulated

### IMDG

UN/ID NO	Not regulated
Proper Shipping Name	Not regulated
Hazard Class	Not regulated
Packing group	Not regulated

### RID

UN/ID NO	Not regulated
Proper Shipping Name	Not regulated
Hazard Class	Not regulated
Packing group	Not regulated

### ADR

UN/ID NO	Not regulated
Proper Shipping Name	Not regulated
Hazard Class	Not regulated
Packing group	Not regulated

## 15. REGULATORY INFORMATION

### Hazard Classification

United States \_OSHA (29 CFR 1910.1200): Not Hazardous

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and M/SDS contains all the information required by the Controlled Product Regulations.

Chemical Name	WHMIS-Ingredient Disclosure
Quartz (respirable) 14808-60-7	1

**International Inventories**

CH INV : On the inventory, or in compliance with the inventory.  
TSCA : On TSCA Inventory.  
DSL : All components of this product are on the Canadian DSL.  
AICS : On the inventory, or in compliance with the inventory.  
NZIoC : On the inventory, or in compliance with the inventory.  
ENCS : On the inventory, or in compliance with the inventory.  
ISHL : On the inventory, or in compliance with the inventory.  
KECI : On the inventory, or in compliance with the inventory.  
PICCS : On the inventory, or in compliance with the inventory.  
IECSC : On the inventory, or in compliance with the inventory.

**16. OTHER INFORMATION****Disclaimer:**

This information set forth is based on information that Gaia Carbon believes to be accurate. No warranty, expressed or implied, is intended. The information is provided solely for your information and consideration and Gaia Carbon assumes no legal responsibility for use or reliance thereon. In the event of a discrepancy between the information on the non-Englished document or its Englished counterpart, the English version shall superseded.

End of Safety Data Sheet