

1. IDENTIFICATION

Product Name	Activated Carbon - Mining
Other Names	PICAGOLD G Series
Uses	Use as an adsorbent in industrial, professional and consumer setting; Precious metals recovery in mining facilities.
Chemical Family	No Data Available
Chemical Formula	C
Chemical Name	Activated Carbon
Product Description	A porous, amorphous, high surface area adsorbent material composed largely of elemental carbon.

Contact Details of the Supplier of this Safety Data Sheet

Organisation	Location	Telephone
Redox Pty Ltd	2 Swettenham Road Minto NSW 2566 Australia	+61-2-97333000
Redox Pty Ltd	11 Mayo Road Wiri Auckland 2104 New Zealand	+64-9-2506222
Redox Inc.	3960 Paramount Boulevard Suite 107 Lakewood CA 90712 USA	+1-424-675-3200
Redox Chemicals Sdn Bhd	Level 2, No. 8, Jalan Sapir 33/7 Seksyen 33, Shah Alam Premier Industrial Park 40400 Shah Alam Sengalor, Malaysia	+60-3-5614-2111

Emergency Contact Details

For emergencies only; DO NOT contact these companies for general product advice.

Organisation	Location	Telephone
Poisons Information Centre	Westmead NSW	1800-251525 131126
Chemcall	Australia	1800-127406 +64-4-9179888
Chemcall	Malaysia	+64-4-9179888
Chemcall	New Zealand	0800-243622 +64-4-9179888
National Poisons Centre	New Zealand	0800-764766
CHEMTREC	USA & Canada	1-800-424-9300 CN723420 +1-703-527-3887

2. HAZARD IDENTIFICATION

Poisons Schedule (Aust) Not Scheduled

Globally Harmonised System

Hazard Classification NOT hazardous according to the criteria of the Globally Harmonised System of Classification and Labelling of Chemicals (GHS)

Signal Word None

National Transport Commission (Australia)

Australian Code for the Transport of Dangerous Goods by Road & Rail (ADG Code)

Dangerous Goods Classification NOT Dangerous Goods according to the criteria of the Australian Code for the Transport of Dangerous Goods by Road & Rail (ADG Code)

3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients

Chemical Entity	Formula	CAS Number	Proportion
Activated Carbon (High Density Skeleton)	C	7440-44-0	100 %

4. FIRST AID MEASURES

Description of necessary measures according to routes of exposure

Swallowed	IF SWALLOWED: Rinse mouth, then give at least 1/2 litre of water to drink. Do not induce vomiting. Get medical advice/attention if you feel unwell. Never give anything by mouth to an unconscious person.
Eye	IF IN EYES: Rinse cautiously with water for several minutes, holding eyelids open and occasionally lifting the upper and lower lids. Remove contact lenses if present and easy to do. Continue rinsing for at least 15 minutes. If eye irritation persists, get medical advice/attention. consult an ophthalmologist.2
Skin	IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing and wash before reuse. If skin irritation occurs, get medical advice/attention.
Inhaled	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If respiratory symptoms persist, get medical advice/attention.
Advice to Doctor	Treat symptomatically. When large amounts are ingested orally, congestion may occur.
Medical Conditions Aggravated by Exposure	Medication efficiency can be reduced by the adsorbing properties of the activated Carbon.

5. FIRE FIGHTING MEASURES

General Measures	If safe to do so, move undamaged containers from fire area. Cool containers with water spray until well after fire is out - May reignite after fire is extinguished. After a fire, smoldering hotspots within the activated carbon may be present for a long time. Large fire/fire involving tanks: Fight fire from protected position or use unmanned hose holders or monitor nozzles.
Flammability Conditions	May be ignited by friction, heat, sparks or flame. May burn fiercely.
Extinguishing Media	Use foam, dry chemical, Carbon dioxide or water spray for extinction - Do not use water jets.
Fire and Explosion Hazard	Risk of violent reaction or explosion - Dusts can form an explosive mixture with air. 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.
Hazardous Products of Combustion	Fire may produce irritating and/or toxic gases, including Carbon monoxide, Carbon dioxide, other decomposition products from the saturated Activated Carbon. Fire will often produce a thick black smoke. Exposure to decomposition products may be hazardous to health - Do not breathe in smoke.
Special Fire Fighting Instructions	Contain runoff from fire control or dilution water - Runoff may pollute waterways.
Personal Protective Equipment	Full fire kit in combination with self-contained breathing apparatus (SCBA). No Data Available

Flash Point**Lower Explosion Limit** No Data Available**Upper Explosion Limit** No Data Available**Auto Ignition Temperature** No Data Available**Hazchem Code** No Data Available**6. ACCIDENTAL RELEASE MEASURES**

General Response Procedure	Ensure adequate ventilation. ELIMINATE all ignition sources (no smoking, flares, sparks or flame). Do not touch or walk through spilled material. Avoid breathing dust and contact with eyes, skin and clothing.
Clean Up Procedures	Retrieve the product by mechanical means (sweeping/vacuuming) and place it into suitable containers for later disposal (see SECTION 13).
Containment	Prevent entry into waterways, drains or confined areas. Prevent dust cloud.
Decontamination	No information available.
Environmental Precautionary Measures	Spillages and decontamination runoff should be prevented from entering drains and watercourses.
Evacuation Criteria	Spill or leak area should be isolated immediately. Keep unauthorised personnel away; Keep upwind.
Personal Precautionary Measures	Use personal protective equipment as required (see SECTION 8).

7. HANDLING AND STORAGE

Handling	Safety showers and eyewash facilities should be provided within the immediate work area for emergency use. Ensure adequate ventilation, especially in confined areas. Handle in accordance with good industrial hygiene and safety practice. Prevent dust generation. Avoid breathing dust and contact with eyes, skin and clothing. Use personal protective equipment as required (see SECTION 8). Keep away from heat and ignition sources - No smoking.
Storage	Store in a cool, dry, well-ventilated place. Keep container tightly closed. Keep away from heat and ignition sources - No smoking. Keep away from incompatible materials/chemicals (solvents, strong oxidisers, strong acids, flammable materials). Protect from moisture/dampness. Storage of wet Activated Carbon in a closed area can deplete oxygen from air - Whenever workers enter a vessel containing Activated Carbon, the oxygen content should be determined and work procedures for potentially low oxygen areas should be followed. Prevent access by unauthorised personnel.
Container	Always keep in the original packaging or in packaging made of an identical material to the original.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

General	No specific exposure standards are available for this product. For dusts from solid substances without specific occupational exposure standards: <ul style="list-style-type: none">- Safe Work Australia Exposure Standard (Nuisance dusts): 8 hr TWA = 10 mg/m³ (measured as inhalable dust).- New Zealand WES (Particulates not otherwise classified): TWA = 10 mg/m³ (total); TWA = 3 mg/m³ (respirable).- OSHA PEL (Particulates not otherwise regulated): TWA = 15 mg/m³ (total); TWA = 5 mg/m³ (respirable). Derived no-effect levels (DNELs): <ul style="list-style-type: none">- Workers, Inhalation (short-term, local effects): 3 mg/m³- Workers, Inhalation (long-term, systemic effects): 3 mg/m³
Exposure Limits	No Data Available
Biological Limits	No information available.
Engineering Measures	A system of local and/or general exhaust is recommended to keep employee exposures as low as possible. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area.
Personal Protection Equipment	Respiratory protection: In case of powders or dust emissions, wear respiratory protection. Recommended filter type: P (particulate); Wear a disposal half-mask dust filter (Category: FFP2). Eye/face protection: Wear appropriate eye protection to avoid eye contact with powders or dust emissions. Recommended: Mask goggles. Hand protection: Wear suitable protective gloves in case of prolonged or repeated handling. No recommendation.

Skin/body protection: Wear appropriate personal protective clothing to avoid (prolonged or repeated) skin contact. No recommendation.

Special Hazards Precautions

Storage of wet Activated Carbon in a closed area can deplete oxygen from air - Whenever workers enter a vessel containing Activated Carbon, the oxygen content should be determined and work procedures for potentially low oxygen areas should be followed. Prevent access by unauthorised personnel.

Work Hygienic Practices

Always wash thoroughly after handling. No smoking, eating or drinking in areas where the substance is used. Take off contaminated clothing/equipment and wash before storage or reuse. Use personal protective equipment that is clean and has been properly maintained. Store personal protective equipment in a clean place, away from the work area.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Solid
Appearance	Granules
Odour	None
Colour	Black
pH	7 - 11 (aqueous solution)
Vapour Pressure	No Data Available
Relative Vapour Density	No Data Available
Boiling Point	No Data Available
Melting Point	No Data Available
Freezing Point	No Data Available
Solubility	Insoluble in water [OECD Guideline 105]
Specific Gravity	No Data Available
Flash Point	No Data Available
Auto Ignition Temp	No Data Available
Evaporation Rate	No Data Available
Bulk Density	No Data Available
Corrosion Rate	No Data Available
Decomposition Temperature	No Data Available
Density	200 - 700 kg/m ³ [ASTM D2854]
Specific Heat	No Data Available
Molecular Weight	No Data Available
Net Propellant Weight	No Data Available
Octanol Water Coefficient	No Data Available
Particle Size	No Data Available
Partition Coefficient	No Data Available
Saturated Vapour Concentration	No Data Available
Vapour Temperature	No Data Available
Viscosity	No Data Available
Volatile Percent	No Data Available
VOC Volume	No Data Available
Additional Characteristics	Physical and chemical properties of the saturated activated carbon may be different from the virgin material.
Potential for Dust Explosion	Dusts can form an explosive mixture with air.
Fast or Intensely Burning Characteristics	May burn fiercely.
Flame Propagation or Burning Rate of Solid Materials	No information available.
Non-Flammables That Could Contribute Unusual Hazards to a Fire	No information available.

Properties That May Initiate or Contribute to Fire Intensity	May be ignited by friction, heat, sparks or flame.
Reactions That Release Gases or Vapours	Fire/thermal decomposition may produce irritating and/or toxic gases, including Carbon monoxide, Carbon dioxide, other decomposition products from the saturated Activated Carbon. Fire will often produce a thick black smoke. Exposure to decomposition products may be hazardous to health - Do not breathe in smoke.
Release of Invisible Flammable Vapours and Gases	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.

10. STABILITY AND REACTIVITY

General Information	This product shows no reactivity under the specified conditions of storage, shipment and use.
Chemical Stability	This substance is stable under the recommended handling and storage conditions (see SECTION 7).
Conditions to Avoid	Avoid dust formation. Keep away from heat and ignition sources. Protect from moisture/humidity.
Materials to Avoid	Incompatible/reactive with solvents, strong oxidising agents, strong acids, flammable materials.
Hazardous Decomposition Products	Fire/thermal decomposition may produce irritating and/or toxic gases, including Carbon monoxide, Carbon dioxide, other decomposition products from the saturated Activated Carbon.
Hazardous Polymerisation	No information available.

11. TOXICOLOGICAL INFORMATION

General Information	<p>Acute toxicity: Based on the physical and chemical properties of Activated Carbons, the absence of effects on toxicological studies and the therapeutic use of Activated Carbons as adsorbing agents for the treatment of acute poisoning and acute diarrhoea, it can be expected that Activated Carbon is not absorbed via the oral, dermal and inhalation routes.</p> <p>Skin corrosion/irritation: Not irritating to skin. No observed effect (Rabbit) [OECD Guideline 404].</p> <p>Eye damage/irritation: Not irritating to eyes. Corneal haze: Negative, Iritis: Negative, Conjunctival redness: 0.67, Conjunctival oedema: 0.33 (Average score, Rabbit, 72 h exposure) [OECD Guideline 405].</p> <p>Respiratory/skin sensitisation: Not sensitising to skin (Mouse, Local lymph node assay) [OECD Guideline 429].</p> <p>Germ cell mutagenicity: All the key studies indicate that the substance does not show any genotoxic potential; Therefore, it can be concluded that the substance is not mutagenic. Mutagenesis, in vitro: Negative (Bacterial reverse mutation assay) [OECD Guideline 471]. Ames test, in vitro: Negative (with/without metabolic activation, <i>S. typhimurium</i> (TA1535)).</p> <p>Carcinogenicity: No information available.</p> <p>Reproductive toxicity: No information available.</p> <p>STOT - single exposure: No information available.</p> <p>STOT - repeated exposure: No information available.</p> <p>Aspiration toxicity: No information available.</p>
Acute	
Ingestion	<p>Acute toxicity (Oral):</p> <p>- LD50, Rat: >2,000 mg/kg [OECD Guideline 423].</p>
Inhalation	<p>Acute toxicity (Inhalation):</p> <p>- LC50, Rat: >64.4 mg/L [OECD Guideline 403].</p>
Carcinogen Category	None

12. ECOLOGICAL INFORMATION

Ecotoxicity	As Activated Carbon is insoluble in water, no toxicity is expected.
Persistence/Degradability	Activated Carbon - HDS type is a 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 conceivably be biodegraded.
Mobility	No information available (the substance is insoluble).
Environmental Fate	As Activated Carbon - HDS type is considered to be an inorganic substance, PBT and vPvB assessment is not applicable.
Bioaccumulation 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.

Environmental Impact No Data Available

13. DISPOSAL CONSIDERATIONS

General Information Recycle or dispose of contents/container, preferably via a certified collector or company, in accordance with local/regional/national regulations. Do not contaminate the ground or water with waste, do not dispose of waste into the environment.

Special Precautions for Land Fill Contaminated packaging: Empty container completely. Keep label(s) on container. Give to a certified disposal contractor.

14. TRANSPORT INFORMATION

General Information Steam activated carbon; Does not meet the defined criteria, after having been submitted to the 4.2 test.

Land Transport (Australia)

ADG Code

Proper Shipping Name	CARBON, ACTIVATED
Class	No Data Available
Subsidiary Risk(s)	No Data Available
	No Data Available
UN Number	No Data Available
Hazchem	No Data Available
Pack Group	No Data Available
Special Provision	223

Land Transport (Fiji)

ADG Code

Proper Shipping Name	CARBON, ACTIVATED
Class	No Data Available
Subsidiary Risk(s)	No Data Available
	No Data Available
UN Number	No Data Available
Hazchem	No Data Available
Pack Group	No Data Available
Special Provision	223

Land Transport (Malaysia)

ADR Code

Proper Shipping Name	CARBON, ACTIVATED
Class	No Data Available
Subsidiary Risk(s)	No Data Available
	No Data Available
UN Number	No Data Available
Hazchem	No Data Available
Pack Group	No Data Available

Special Provision 646 (SP223)

Land Transport (New Zealand)

NZS5433

Proper Shipping Name CARBON, ACTIVATED
Class No Data Available
Subsidiary Risk(s) No Data Available
No Data Available
UN Number No Data Available
Hazchem No Data Available
Pack Group No Data Available
Special Provision 223

Land Transport (United States of America)

US DOT

Proper Shipping Name CARBON, ACTIVATED
Class No Data Available
Subsidiary Risk(s) No Data Available
No Data Available
UN Number No Data Available
Hazchem No Data Available
Pack Group No Data Available
Special Provision 223

Sea Transport

IMDG Code

Proper Shipping Name CARBON, ACTIVATED
Class No Data Available
Subsidiary Risk(s) No Data Available
UN Number No Data Available
Hazchem No Data Available
Pack Group No Data Available
Special Provision 223, 925
EMS No Data Available
Marine Pollutant No

Air Transport

IATA DGR

Proper Shipping Name CARBON, ACTIVATED
Class No Data Available
Subsidiary Risk(s) No Data Available
UN Number No Data Available
Hazchem No Data Available
Pack Group No Data Available
Special Provision A3 (SP223)

National Transport Commission (Australia)

Australian Code for the Transport of Dangerous Goods by Road & Rail (ADG Code)

Dangerous Goods Classification

NOT Dangerous Goods according to the criteria of the Australian Code for the Transport of Dangerous Goods by Road & Rail (ADG Code)

15. REGULATORY INFORMATION**General Information** No Data Available**Poisons Schedule (Aust)** Not Scheduled**Environmental Protection Authority (New Zealand)**

Hazardous Substances and New Organisms Amendment Act 2015

Approval Code Not Assessed**National/Regional Inventories**

Australia (AICS)	Listed
Canada (DSL)	Not Determined
Canada (NDSL)	Not Determined
China (IECSC)	Not Determined
Europe (EINECS)	931-328-0
Europe (REACH)	01-2119488894-16-0013
Japan (ENCS/METI)	Not Determined
Korea (KECI)	Not Determined
Malaysia (EHS Register)	Not Determined
New Zealand (NZIoC)	Not Determined
Philippines (PICCS)	Not Determined
Switzerland (Giftliste 1)	Not Determined
Switzerland (Inventory of Notified Substances)	Not Determined
Taiwan (NCSR)	Not Determined
USA (TSCA)	Not Determined

16. OTHER INFORMATION**Related Product Codes** ACCARM0600, ACCARM0700, ACCARM0701, ACCARM0725, ACCARM0755, ACCARM0800, ACCARM1000, ACCARM1001, ACCARM1002, ACCARM1003, ACCARM1004, ACCARM1005, ACCARM1006, ACCARM1007, ACCARM1100, ACCARM1200, ACCARM1300, ACCARM2080, ACCARM2090, ACCARM4500, ACCARM5500, ACCARM5501, ACCARM5502, ACCARM6000, ACCARM6001, ACCARM6002, ACCARM6500**Revision** 4**Revision Date** 16 Apr 2015

< Less Than

Key/Legend

> Greater Than
AICS Australian Inventory of Chemical Substances
atm Atmosphere
CAS Chemical Abstracts Service (Registry Number)
cm² Square Centimetres
CO₂ Carbon Dioxide
COD Chemical Oxygen Demand
deg C (°C) Degrees Celcius
EPA (New Zealand) Environmental Protection Authority of New Zealand
deg F (°F) Degrees Farenheit
g Grams
g/cm³ Grams per Cubic Centimetre
g/l Grams per Litre
HSNO Hazardous Substance and New Organism
IDLH Immediately Dangerous to Life and Health
immiscible Liquids are insoluable in each other.
inHg Inch of Mercury
inH₂O Inch of Water
K Kelvin
kg Kilogram
kg/m³ Kilograms per Cubic Metre
lb Pound
LC₅₀ LC stands for lethal concentration. LC₅₀ is the concentration of a material in air which causes the death of 50% (one half) of a group of test animals. The material is inhaled over a set period of time, usually 1 or 4 hours.
LD₅₀ LD stands for Lethal Dose. LD₅₀ is the amount of a material, given all at once, which causes the death of 50% (one half) of a group of test animals.
ltr or **L** Litre
m³ Cubic Metre
mbar Millibar
mg Milligram
mg/24H Milligrams per 24 Hours
mg/kg Milligrams per Kilogram
mg/m³ Milligrams per Cubic Metre
Misc or **Miscible** Liquids form one homogeneous liquid phase regardless of the amount of either component present.
mm Millimetre
mmH₂O Millimetres of Water
mPa.s Millipascals per Second
N/A Not Applicable
NIOSH National Institute for Occupational Safety and Health
NOHSC National Occupational Heath and Safety Commission
OECD Organisation for Economic Co-operation and Development
Oz Ounce
PEL Permissible Exposure Limit
Pa Pascal
ppb Parts per Billion
ppm Parts per Million
ppm/2h Parts per Million per 2 Hours
ppm/6h Parts per Million per 6 Hours
psi Pounds per Square Inch
R Rankine
RCP Reciprocal Calculation Procedure
STEL Short Term Exposure Limit
TLV Threshold Limit Value
tne Tonne
TWA Time Weighted Average
ug/24H Micrograms per 24 Hours
UN United Nations
wt Weight