Chlorosorb® II Media

Safety Data Sheet

according to the federal final rule of hazard communication revised in 2012 (HazCom 2012)

SECTION 1: Identification of the substance or mixture and of the supplier

1.1. Product identifier

Trade name : Chlorosorb® II Media

Product code : PUR-024

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

Recommended use : Dry granular medium for use in gas-phase air filtration

Restrictions of use : Only use for the intended purpose.

: The product is not intended to remove dangerous particulates or biological agents.

: The product is not intended to purify water.

1.3. Details of the supplier of the safety data sheet

Manufacturer : Purafil, Inc.
2654 Weaver Way
Doraville, Georgia 30340 USA
Tel: +1-770-662-8545, +1-800-222-6367 (toll-free within the USA & Canada)
Fax: +1-770-263-6922
www.purafil.com

1.4. Emergency telephone number

CHEMTREC : For Hazardous Materials [or Dangerous Goods] Incident
Spill, Leak, Fire, Exposure, or Accident
Call CHEMTREC Day or Night
Within USA and Canada: 1-800-424-9300 CCN723586
Outside USA and Canada: +1-703-741-5970 (collect calls accepted)

Purafil, Inc. : +1-770-662-8545, +1-800-222-6367 (toll-free within the USA and Canada)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GHS-US classification

Skin Irrit. 2 H315

Eye Irrit. 2A H319

2.2. Label elements

GHS-US labeling

Hazard pictograms (GHS-US) :

GHS07

Signal word (GHS-US) : Warning

Hazard statements (GHS-US) : H315 - Causes skin irritation
H319 - Causes serious eye irritation
H335 - May cause respiratory irritation

Precautionary statements (GHS-US) : P261 - Avoid breathing dust, fume, gas, mist, spray, vapours
P264 - Wash hands thoroughly after handling
P271 - Use only outdoors or in a well-ventilated area
P280 - Wear eye protection, protective clothing, protective gloves
P302+P352 - If on skin: Wash with plenty of water
P304+P340 - If inhaled: Remove person to fresh air and keep comfortable for breathing
P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P312 - Call a doctor, a POISON CENTER if you feel unwell
P321 - Specific treatment (see ... on this label)
P332+P313 - If skin irritation occurs: Get medical advice/attention
P337+P313 - If eye irritation persists: get medical advice/attention
P362 - Take off contaminated clothing and wash before reuse
P403+P233 - Store in a well-ventilated place. Keep container tightly closed
P405 - Store locked up
P501 - Dispose of contents/container to comply with applicable local, national and international regulation.

2.3. Other hazards

May cause respiratory irritation.

Special danger of slipping on spilled product.

The components in this mixture do not meet the criteria for classification as PBT or vPvB.

2.4. Unknown acute toxicity (GHS-US)

No data available.

SECTION 3: Composition/information on ingredients

Name	Product identifier	%	GHS-US classification
Carbon (C)	(CAS No) 7440-44-0	35 - 45	Not classified
Aluminum oxide (Al_2O_3)	(CAS No) 1344-28-1	15 - 25	Not classified
Carbonic acid, dipotassium salt (Na_2CO_3)	(CAS No) 584-08-7	15 - 25	Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Eye Irrit. 2A, H319 STOT SE 3, H335
Sodium thiosulfate ($Na_2S_2O_3 \cdot 5H_2O$)	(CAS No) 7772-98-7	1 - 5	Not classified

SECTION 4: First aid measures

4.1. Description of first aid measures

General information : First aider: Pay attention to self-protection!

After inhalation : Provide fresh air. In case of respiratory tract irritation, consult a physician.

After contact with skin : After contact with skin, wash with water and soap. Change contaminated clothing. If skin irritation or rash occurs: Get medical advice/attention.

After contact with eyes : IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Consult an ophthalmologist.

After ingestion : If swallowed, rinse mouth with water (only if the person is conscious). Call a physician immediately.

4.2. Most important symptoms and effects, both acute and delayed

: Following inhalation: Coughing, asthmatic complaints. Repeated and prolonged contact may aggravate asthma and dermatitis.
: After skin contact: Irritation and reddening. Skin rashes.
: Following eye contact: Irritation and reddening. Causes serious eye irritation.
: After ingestion: May cause irritation of the gastrointestinal mucosa, abdominal pain, vomiting and diarrhea.

4.3. Indication of any immediate medical attention and special treatment needed

: Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : If involved in a fire, flood with plenty of water. Coordinate firefighting measures to the fire surroundings.

Unsuitable extinguishing media : None known.

5.2. Special hazards arising from the substance or mixture

: This material does not contribute fuel when attacked by flame and emits only negligible amounts of smoke).

5.3. Advice for firefighters

: Wear NIOSH approved self-contained breathing apparatus and chemical protective clothing.

5.4. Additional information

: Suppress gases/vapors/mists with water spray jet.
: Contaminated firefighting water must be collected separately. Do not allow to enter into surface water or drains.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

: Provide adequate ventilation. Avoid generation of dust. Do not breathe dust. Avoid contact with skin, eyes and clothes. Wear personal protection equipment.

6.2. Environmental precautions

: None known.

6.3. Methods and material for containment and cleaning up

: Pick up dry. Take up mechanically. Avoid generation of dust. Treat the recovered material as prescribed in section 13 on waste disposal.

6.4. Reference to other sections

: Protection measures in accordance with section 8.
: Disposal in accordance with section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling : Avoid generation of dust. Use air conveying (vacuum) for bulk removal. If manual handling is used for transfer (from vessel, slingbags, boxes, or pails), use mechanical ventilation or other measures to remove airborne dust.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels : Store only in original container. Keep container tightly closed in a cool, well-ventilated place.
: Protect from water and exposure to contaminated air (gaseous, particulate, and aerosol contaminated), otherwise the product may be rendered useless.

Further information on storage conditions : Recommended packaging materials:
- Corrugated double wall boxes with plastic liners.
- Injection molded polystyrene pails and lids including a neoprene seal.

7.3. Specific end use(s)

: Dry granular medium for use in gas-phase air filtration.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Aluminum oxide (1344-28-1)		
OSHA	OSHA PEL (TWA) (mg/m³)	15 mg/m³ (total dust) 5 mg/m³ (respirable fraction)

8.2. Exposure controls

Appropriate engineering controls : If handled uncovered, arrangements with local exhaust ventilation have to be used. Avoid breathing dust.

Protective and hygiene measures : Remove contaminated, saturated clothing immediately. After work, wash hands and face.
: When using, do not eat or drink.

Eye and face protection : Tightly fitting safety glasses with side shields.

Hand protection : Protect skin by using skin protective cream.
: Wear suitable gloves.
Suitable material: NR (natural rubber (India rubber, caoutchouc), natural latex).
Thickness of glove material: >= 0.1 mm
Penetration time (maximum wearing period): >480 Min.
The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances.

Skin protection : Full cover clothing covering arms and legs.

Respiratory protection : Dust mask: NIOSH N95; identification color: white. Observe the wear time limits.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state (appearance) : Solid, roughly spherical pellets or granules, 1/16 - ¼" (1.6 – 6.4 mm) in diameter
Color : Dark grey to black
Odor : No specific odor
Odor threshold : No data available
pH : No data available

Changes in the physical state

Melting point/freezing point : No data available
Initial boiling point and boiling range : No data available
Flash point : No data available

Evaporation rate	:	No data available
Flammability		
Solid	:	Not flammable under normal use conditions
Upper/lower flammability	:	No data available
Explosive properties	:	No danger of explosion under normal conditions, high concentrations of carbon dust in the air can form an explosive dust/air mixture.
Lower explosion limit		
Upper explosion limit	:	No data available
Ignition temperature	:	No data available
Auto-ignition temperature		
Solid	:	No data available
Decomposition temperature	:	No data available
Vapor pressure	:	No data available
Vapor density	:	No data available
Relative density	:	ca. 45 lb/ft^3, 0.7210 g/cc, 721 kg/m^3
Water Solubility	:	Partially soluble
Solubility in other solvents	:	No data available
Soluble in	:	Insoluble
Partition coefficient		
n-octanol/water	:	No data available
Viscosity, dynamic	:	No data available
Viscosity, kinematic	:	No data available

9.2. Other information

: No data available.

SECTION 10: Stability and reactivity

10.1. Reactivity

: No dangerous reactivity under normal conditions.

10.2. Chemical stability

: The product is stable under normal conditions.

10.3. Possibility of hazardous reactions

: Fire may occur in contact with strong oxidizing agents.

10.4. Conditions to avoid

: Liquid water, moisture. Heat sources, open flames and other ignition sources.

10.5. Incompatible materials

: Strong oxidizing agents.

10.6. Hazardous decomposition products

: Carbon monoxide may be generated during combustion of this material.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Aluminum oxide (1344-28-1)	
LD_{50} oral rat	> 5,000 mg/kg

Carbon (7440-44-0)	
LD50 oral rat	> 10,000 mg/kg

Carbonic acid, dipotassium salt (584-08-7)	
LD50 oral rat	1,870 mg/kg
ATE US (oral)	1,870.000 mg/kg bodyweight

Acute toxicity : Based on available data, the classification criteria are not met.

Irritation and corrosivity : Based on available data, the classification criteria are not met.

Sensitizing effects : Based on available data, the classification criteria are not met.

STOT-single exposure	:	Based on available data, the classification criteria are not met.
Severe effects after repeated or prolonged exposure	:	Based on available data, the classification criteria are not met.
Carcinogenic/mutagenic/toxic effects for reproduction	:	Based on available data, the classification criteria are not met.
Aspiration hazard	:	Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

12.1. Toxicity

Acute Daphnia toxicity	:	No data available.
Algae toxicity	:	No data available.

12.2. Persistence and degradability

: No data available.

12.3. Bioaccumulative potential

: No data available.

12.4. Mobility in soil

: No data available.

12.5. Results of PBT and vPvB assessment

: The components in this mixture do not meet the criteria for classification as PBT or vPvB.

12.6. Other adverse effects

: No data available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Advice on disposal	:	Waste disposal should be in accordance with existing federal, state, and local environmental control regulations. Spent media that has removed toxic chemicals should be examined for specific hazards. Spilled product may be recovered for use if it has not come in contact with liquids or been exposed to significant amounts of gaseous contaminants.
Disposal of residues/unused products	:	Dispose in a safe manner in accordance with local/national regulations. Dispose of contents/container to an approved waste disposal plant. Avoid release to the environment.
Disposal of packaging	:	Dispose in a safe manner in accordance with local/national regulations. Dispose of contents/container to an approved waste disposal plant. Avoid release to the environment.

SECTION 14: Transport information

14.1. Land transport (DOT)

UN number	:	None on finished product.
UN proper shipping name	:	Not regulated.
Transport hazard classes	:	None on finished product.
Packing group	:	None on finished product.
Marine pollutant	:	No

14.2. Water transport (IMDG / IMO)

UN number	:	None on finished product.
UN proper shipping name	:	Not regulated.
Transport hazard classes	:	None on finished product.
Packing group	:	None on finished product.
Marine pollutant	:	No

14.3. Air transport (IATA / ICAO)

UN number	:	None on finished product.
UN proper shipping name	:	Not regulated.
Transport hazard classes	:	None on finished product.
Packing group	:	None on finished product.
Marine pollutant	:	No

14.4. Environmental hazards

Environmentally hazardous	:	No

14.5. Special precautions for user

: No special precautions known.

SECTION 15: Regulatory information

15.1. US Federal regulations

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory.

This product or mixture does not contain a toxic chemical or chemicals in excess of the applicable concentration as specified in 40 CFR §372.38(a) subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

Aluminum oxide (1344-28-1)	
Listed on United States SARA Section 313	
SARA Section 313 - Emission Reporting	1.0 % (fibrous forms)

15.2. International regulations

CANADA

Aluminum oxide (1344-28-1)	
Listed on the Canadian DSL (Domestic Sustances List)	
WHMIS Classification	Uncontrolled product according to WHMIS classification criteria

Carbon (7440-44-0)	
Listed on the Canadian DSL (Domestic Sustances List)	
WHMIS Classification	Uncontrolled product according to WHMIS classification criteria

Sodium thiosulfate (7772-98-7)	
Listed on the Canadian DSL (Domestic Sustances List)	
WHMIS Classification	Uncontrolled product according to WHMIS classification criteria

Carbonic acid, dipotassium salt (584-08-7)	
Listed on the Canadian DSL (Domestic Sustances List)	
WHMIS Classification	Class D Division 2 Subdivision B - Toxic material causing other toxic effects Class E - Corrosive Material

EU-Regulations

Aluminum oxide (1344-28-1)
Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

Carbon (7440-44-0)
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Carbonic acid, dipotassium salt (584-08-7)
Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

15.2.2. National regulations

Aluminum oxide (1344-28-1)
Listed on the AICS (Australian Inventory of Chemical Substances) Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China) Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory Listed on the Korean ECL (Existing Chemicals List) Listed on NZIoC (New Zealand Inventory of Chemicals) Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances) Listed on the Canadian IDL (Ingredient Disclosure List)

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Listed on the Korean ECL (Existing Chemicals List)
Listed on NZIoC (New Zealand Inventory of Chemicals)
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)
Listed on INSQ (Mexican national Inventory of Chemical Substances)
Listed on Turkish inventory of chemical

Carbonic acid, dipotassium salt (584-08-7)
Listed on the AICS (Australian Inventory of Chemical Substances)
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory
Listed on the Korean ECL (Existing Chemicals List)
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Listed on the Canadian IDL (Ingredient Disclosure List)
Listed on INSQ (Mexican national Inventory of Chemical Substances)
Listed on Turkish inventory of chemical

15.3. US State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer and/or reproductive harm.

SECTION 16: Other information

Abbreviations and acronyms:

ACGIH: American Conference of Governmental Industrial Hygienists
ATE: acute toxicity estimate
CAS: Chemical Abstracts Service
CLP: Classification, Labeling, Packaging
DOT: United States Department of Transportation
DNEL: Derived No Effect Level
EC_{50}: median effective concentration for immobilization
ErC_{50}: effective concentration of a substance that causes 50% reduction in growth rate
GHS: Globally Harmonized System of Classification and Labeling of Chemicals
IATA: International Air Transport Association
ICAO: International Civil Aviation Organization
IMDG: International Maritime Code for Dangerous Goods
IMO: International Maritime Organization
LC_{50}: Lethal concentration, 50% of test population
OECD: Organization for Economic Co-operation and Development
LD_{50}: Lethal dose, 50% of test population
PNEC: Predicted No Effect Concentration
STOT: Specific Target Organ Toxicity
TLV: Threshold Limiting Value
TWA-TLV: Threshold Limit Value for the Time Weighted Average 8 hour day (ACGIH Standard)

Full text of H-statements:

Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Eye Irrit. 2A	Serious eye damage/eye irritation, Category 2A
Ox. Sol. 2	Oxidising Solids, Category 2
Skin Irrit. 2	Skin corrosion/irritation Category 2
STOT SE 3	Specific target organ toxicity (single exposure) Category 3
H272	May intensify fire; oxidiser
H302	Harmful if swallowed
H315	Causes skin irritation
H319	Causes serious eye irritation
H335	May cause respiratory irritation