



SAFETY DATA SHEET

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Document Rev 2.1.0

ACCORDING TO EC-REGULATIONS 1907/2006 (REACH), 1272/2008 (CLP) & 2020/878,
and United States Regulation 29 CFR 1910

1 SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

| | | |
|---|--|---|
| 1.1 | Product identifier Product Name Product Code | PureAir AC-X, PureAir AC-C AC-X , AC-C |
| 1.2 | Relevant identified uses of the substance or mixture and uses advised against Identified Use(s) Uses Advised Against | Gas-phase air filtration Do not use for applications other than those specified. |
| 1.3 | Details of the supplier of the safety data sheet Company Identification | Pure Air Filtration, LLC 6050 Peachtree Parkway Suite 240-187 Atlanta, GA 30092 USA PureAir Filtration BV Tijnmuiden 79 1046 AK Amsterdam The Netherlands |
| | Telephone Fax E-mail (competent person) | +1 (678) 935-1431 ; Office Hours are Monday through Friday, 8:00AM to 5:00PM Eastern Standard Time +1 (678) 935-0648 ajameson@pureairfiltration.com |
| 1.4 | Emergency telephone number Emergency Phone No. Language(s) spoken: | CHEMTREC (international): +1 703-741-5970 (24 hour line) The line is available 24 hours; in the event of a medical enquiry involving this product, please contact your doctor or local hospital accident and emergency department. English |
| 2 <u>SECTION 2: HAZARDS IDENTIFICATION</u> | | |
| 2.1 | Classification of the substance or mixture GHS-US and Regulation (EC) No. 1272/2008 (CLP) and most important hazards | Skin Irrit H315 Eye Irrit 2- H319 & H320 This media is classified by the manufacturer for health effects as a mixture according to EU Directive 1999/45/EC with Xi; R36/37/38 Mixture itself in solid form causes little irritation, but if crushed or handled extensively, dust may evolve which can cause irritation to eyes and respiratory tract. Adding water can cause irritation to skin. If in a confined space, use appropriate safety precautions, as activated carbon can remove oxygen and cause hazard for workers in small space. Before entering space, check state and national guidelines for work in confined area. |
| 2.2 | Label elements Product Name Contains: | According to Regulation (EC) No. 1272/2008 (CLP) PureAir AC-X, AC-C Activated Carbon |

Hazard Pictogram(s)-



Signal Word(s)

Warning

Hazard Statement(s)

H315: Causes Skin Irritation.
H319 & H320- Causes Eye Irritation

Precautionary Statement(s)

[Insert on any additional Precautionary code/statements and brief description]
[The below should apply to just about every media and can be left here]

P235 + P410 - Keep cool. Protect from sunlight
P260 - Do not breathe dust
P264 - Wash face, hands and any exposed skin thoroughly after handling

P273: Avoid release to the environment.
P280: Wear protective gloves and eye/face protection.
P303+P361+P353: IF ON SKIN or hair: Take off immediately all contaminated clothing. Rinse skin with water.
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310: Immediately call a doctor.
P362: Take off contaminated clothing and wash before reuse
P401: Store in cool, dry area in enclosed containers

Supplemental information

Not applicable.

2.3 Other hazards

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

*NOTE: The Hazard Classification listed in this section refers to the chemical at a pure concentration. It has been determined that the remaining ingredient(s) of this component/product are NOT CLASSIFIED AS HAZARDOUS CHEMICALS due to their physical and/or chemical nature and/or concentration in solution, in accordance with California and Federal OSHA regulations (Federal Register 29CFR 1910.1200), and The Chemicals (Hazard Information and Packaging for Supply) Regulations (European Community).

3 SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2

| Chemical identity of the substance | %W/W | CAS No. | EC No. | REACH Registration No. | Hazard Statement(s) |
|------------------------------------|-------|-----------|-----------|------------------------|--|
| Carbon | 18-48 | 7440-44-0 | 231-153-3 | 01-2119488894-16-XXXX | Eye Irrit. 2; H319+H320 Skin Irrit. 2; H315 |

4 SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures

Self-protection of the first aider

Use personal protective equipment as required. Wear suitable protective clothing and gloves. Avoid contact with skin, eyes or clothing. Do not breathe dust. Do not ingest. Take off contaminated clothing and wash before reuse. Ensure adequate ventilation. If swallowed, then seek immediate medical assistance.

Inhalation

IF INHALED: If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing. Immediately call a doctor and/or poison control center.

Skin Contact

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing.



| | |
|--|--|
| Eye Contact | Rinse skin with water/shower. Gently wash with plenty of soap and water. Call a doctor and/or poison control center. |
| Ingestion | IF IN EYES: Flush eyes with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. After rinsing affected eyes must be seen by an ophthalmologist. Call doctor and/or poison control center. IF SWALLOWED: Do NOT induce vomiting. Do not give anything by mouth to an unconscious person. Immediately call a doctor and poison control center. Can cause skin and eye irritation. |
| 4.2 Most important symptoms and effects, both acute and delayed | |
| 4.3 Indication of any immediate medical attention and special treatment needed | |
| Notes to a physician: | Treat symptomatically. IF IN EYES: Obtain prompt consultation, preferably from an ophthalmologist. Other information: This media is classified by the manufacturer for health effects according to EU Directive 1999/45/EC with Xi; R36/37/38 |

*Note: For full text of H phrases see section 16

5 SECTION 5: FIREFIGHTING MEASURES

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|---|---|
| 5.1 Extinguishing media Suitable Extinguishing media | If possible to do so safely, move smoldering activated carbon to a non-hazardous area, preferable outdoors. Extinguish with carbon dioxide, dry chemical, foam or water spray. Alcohol resistant foams (ATC type) are preferred. |
| Unsuitable extinguishing media | Do not use water jet. Direct water jet may spread the fire. Wet activated carbon depletes oxygen from the air. Materials allowed to smolder for long periods in enclosed spaces may produce amounts of carbon monoxide which may reach the lower explosive limit for carbon monoxide of 12.5% in air. |
| 5.2 Special hazards arising from the substance or mixture | May form explosive dust/air mixtures. May decompose if heated. Not flammable but will support combustion. |



Oxidizing
 May intensify fire; some substances alone are oxidizers, while the mixture itself is not classified as an oxidizer. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep away from clothing and other combustible materials. In case of fire use water spray or fog, alcohol resistant foam, dry chemical or carbon dioxide.

Advice for fire-fighters
 Fight fire with normal precautions from a reasonable distance. Fire fighters should wear complete protective clothing including self-contained breathing apparatus. Keep containers cool by spraying with water if exposed to fire. Do not allow run-off from firefighting to enter drains or water courses. All contaminated wastewater must be processed in an industrial or municipal wastewater treatment plant.

6 SECTION 6: ACCIDENTAL RELEASE

6.1 Personal precautions, protective equipment and emergency procedures
 Ensure operatives are trained to minimize exposures. Ensure suitable personal protection during removal of spillages. Use personal protective equipment as required. See Section: 8. Wear suitable protective clothing, gloves and eye/face protection. Avoid all contact. Avoid dust formation. Take off contaminated clothing and wash before reuse. Ensure adequate ventilation. Do not breathe dust. Do not ingest. If swallowed, then seek immediate medical assistance. In case of leakage, eliminate all ignition sources. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Small spillages:
 Oxidizing
 Clean up spill with measures mentioned above. No extra measures necessary. May intensify fire; some ingredients are oxidizers, even though mixture as a whole is not considered oxidizer. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep away from clothing and other combustible materials. In case of fire use water spray or fog, alcohol resistant foam, dry chemical or carbon dioxide.

6.2 Environmental precautions
 6.3 Methods and material for containment and cleaning up
 Collect spillage. Inform authorities if spill cannot be contained. Do not mix with combustible material. Provided it is safe to do so, isolate the source of the leak. Dry sweeping is not recommended. If necessary, light water spray will reduce dust for dry sweeping, but over-wetting may produce very slippery walking surfaces. Transfer to a container for disposal. Use vacuum equipment for collecting spilt materials, where practicable. Dispose of this material and its container as hazardous waste.

Small spillages:
 Sweep up spilled substance and remove to safe place. Avoid dust generation. Damp down to avoid dust generation.

6.4 Reference to other sections
 See Also Section: 8, 13

7 SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling
 Ensure operatives are trained to minimize exposures. Use personal protective equipment as required. See Section: 8. Wear suitable protective clothing, gloves and eye/face protection. Avoid all contact. Ensure adequate ventilation. In case of inadequate ventilation wear respiratory protection. Do not eat, drink or smoke when using this product. Wash hands before breaks and after work.

Oxidizing
 Do not store near combustible materials. Do not mix with combustible material. May intensify fire; some ingredients are oxidizers, even though mixture as a whole is not considered oxidizer. Take precautionary measures against static discharge.

7.2 Conditions for safe storage, including any incompatibilities
 Keep container tightly closed. Store in a cool/low-temperature, well-ventilated (dry) place away from heat and ignition sources. Control dust formation.

Storage temperature
 Keep only in the original container/package in a cool well-ventilated place. Should be stored inside, away from rainwater, etc.

Incompatible materials
 7.3 Specific end use(s)
 Protect from moisture. Keep away from strong oxidizing substances. See Section: 1.2

8 SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters
 8.1.1 Related to Substance- Carbon
 8.1.2 Occupational Exposure Limits
 OSHA PEL (TWA) (15 mg/m³ total dust; 5 mg/m³ respirable fraction)
 Ireland HSA recommends 10mg/m³ (8hr TWA) total inhalable dust; 4 mg/m³ (8hr TWA)

Dust, or Particulates, Substance Not Otherwise Specified:
 Austria MAK: 10 mg/m³, STEL 2x30 min, Inhalable dust 5 mg/m³, TWA, Inhalable dust

Belgium: 10 mg/m³, TWA, Inhalable 3 mg/m³ TWA, Respirable
 Canada (Saskatchewan): 10 mg/m³, TWA, Inhalable 3 mg/m³ TWA, Respirable
 China: 8 mg/m³, TWA 10 mg/m³, STEL
 France: 10 mg/m³, TWA Inhalable dust 5 mg/m³, TWA Respirable dust
 Germany - TRGS 900: 10 mg/m³, TWA, Inhalable 3 mg/m³, Respirable fraction Hong Kong: 10 mg/m³, TWA
 Ireland: 10 mg/m³, TWA, Total inhalable 4 mg/m³, TWA, Respirable Italy: 10 mg/m³, TWA, Inhalable 3 mg/m³, TWA, Respirable
 Japan: 3 mg/m³ TWA, Respirable Product code: CI4 Product name: NORITÒ CI4
 Revision date: 29-Jul-2016
 Malaysia: 10 mg/m³, TWA, Inhalable 3 mg/m³, TWA, Respirable
 The Netherlands: 3.5 mg/m³, Inhalable
 Spain: 10 mg/m³, VLA, Inhalable 3 mg/m³, VLA, Respirable
 Sweden: 10 mg/m³, NGV, Total inhalable 5 mg/m³, NGV, Respirable
 United Kingdom - WEL: 10 mg/m³, TWA, Total Inhalable dust 4 mg/m³, TWA, Respirable dust US ACGIH - PNOS: 10 mg/m³, TWA, Inhalable 3 mg/m³, TWA, Respirable US OSHA - PEL: 15 mg/m³, TWA, Total dust 5 mg/m³, TWA, Respirable

8.1.0 Biological limit value None Known

8.1.1 PNECs and DNELs Not applicable.

8.2 Exposure controls

8.2.1 Appropriate engineering controls Ensure operatives are trained to minimize exposures. Ensure adequate ventilation. In case of inadequate ventilation wear respiratory protection. Good hygiene practices and housekeeping measures. A washing facility/water for eye and skin cleaning purposes should be present. Preferably use engineering controls to keep exposures below the OEL or DNEL.

8.2.2 Individual protection measures, such as personal protective equipment (PPE).

Use personal protective equipment as required. Wear suitable protective clothing, gloves, and eye/face protection. Keep good industrial hygiene. Do not breathe dust. Avoid all contact. Wash hands before breaks and after work. Keep work clothes separately. Take off contaminated clothing and wash before reuse. Do not eat, drink or smoke at the workplace.

Protective clothing should be selected specifically for the working place, depending on concentration and quantity of the hazardous substances handled. The resistance of the protective clothing to chemicals should be ascertained with the respective supplier.

Eye/ face protection



Use eye protection according to EN 166, designed to protect against dusts. Small Quantities: Not normally required

Skin protection



Hand protection:
 Wear gloves to EN374 to protect against skin effects from powders. Breakthrough time of the glove material: refer to the information provided by the gloves' producer.

Skin protection: Wear suitable coveralls to prevent exposure to the skin.

Respiratory protection



Respiratory protective device with a particles filter or Dust Mask: NIOSH N95

8.2.3 Environmental Exposure Controls Prevent release to the environment.

9 SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES



| | |
|--|---|
| <p>9.1 Information on basic physical and chemical properties</p> <p>Physical state Color Odor Melting point/freezing point Not applicable. Flammability Lower and upper explosion limit Flash point Auto-ignition temperature Decomposition Temperature pH Kinematic viscosity Solubility Partition coefficient: n-octanol/water (log value) Vapor pressure Density and/or relative density Relative vapor density Particle characteristics</p> | <p>Solid cylindrical pellets Black No odor Not applicable. Boiling point or initial boiling point and boiling range Not flammable Not explosive Not applicable. Not applicable. Not applicable. Not applicable. Partly soluble in water. Not applicable. Not applicable. ~ 30 lbs/ft3 , 480 kg/m3 Not applicable. Median Particle Diameter 4mm</p> |
| <p>9.2 Other information</p> <p>Oxidizing properties</p> | <p>Not an oxidizer. The final product has no oxidizing properties and it should be classified as "not oxidizing" and "Not Division 5.1" following UN Handbook. A test according to UN Handbook 34.4.1 and GHS was performed and confirms this statement.</p> |
| <p>10 <u>SECTION 10: STABILITY AND REACTIVITY</u> [the below information is generally applicable to all medias. Verify 10.6]</p> | |
| <p>10.1 Reactivity 10.2 Chemical stability 10.3 Possibility of hazardous reactions 10.4 Conditions to avoid 10.5 Incompatible materials 10.6 Hazardous decomposition product(s)</p> | <p>Stable under normal conditions Stable under normal conditions May occur with strong acids or oxidizing agents. Fire may release carbon monoxide and dioxide Protect from moisture, damage, high temperatures, and sunlight Strong acids. Strong reducing and oxidizing agents. Hazardous combustion products: Potassium Oxide, Manganese, oxides of Manganese, oxides of carbon, and sulfur dioxide</p> |
| <p>11 <u>SECTION 11: TOXICOLOGICAL INFORMATION</u></p> | |
| <p>11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008</p> <p>Acute toxicity - Ingestion Acute toxicity - Inhalation Acute toxicity - Skin Contact Skin corrosion/irritation Serious eye damage/irritation Respiratory or skin sensitization Germ cell mutagenicity Carcinogenicity Reproductive toxicity STOT - single exposure STOT - repeated exposure Aspiration hazard</p> | <p>Expected to be low, not tested, the classification criteria are not met. Expected to be low, not tested, the classification criteria are not met. Expected to be low, not tested, the classification criteria are not met. A Skin Irr 2 Eye. Irr 2 Resp Irr 2 Expected to be low, not tested, the classification criteria are not met. Expected to be low, not tested, the classification criteria are not met. Expected to be low, not tested, the classification criteria are not met. Expected to be low, not tested, the classification criteria are not met. Expected to be low, not tested, the classification criteria are not met. Mixture: Not relevant – solid mixture</p> |
| <p>11.2 Information on other hazards</p> <p>11.2.1 Endocrine disrupting properties 11.2.2 Other information</p> | <p>No substances identified as having endocrine-disrupting properties. No data available</p> |
| <p>12 <u>SECTION 12: ECOLOGICAL INFORMATION</u></p> | |
| <p>12.1 Toxicity 12.2 Persistence and degradability 12.3 Bioaccumulative potential</p> | <p>No data, but mixture is only partially (very small percentage) soluble in water No experimental data available. No data for the mixture as a whole. Potassium permanganate Testing can be waived because the substance is an inorganic compound No data for the mixture as a whole.</p> |

| | | | |
|------|------------------------------------|------------------------|---|
| 12.4 | Mobility in soil | Potassium permanganate | Testing can be waived because the substance is an inorganic compound No data for the mixture as a whole. |
| 12.5 | Results of PBT and vPvB assessment | Potassium permanganate | Testing can be waived because the substance is an inorganic compound The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII. |
| 12.6 | Endocrine disrupting properties | | No substances identified as having endocrine-disrupting properties. |
| 12.7 | Other adverse effects | | None Known |

13 SECTION 13: DISPOSAL CONSIDERATIONS

| | | | |
|------|-------------------------|--|---|
| 13.1 | Waste treatment methods | | Dispose of wastes in an approved waste disposal facility, according to local laws |
|------|-------------------------|--|---|

*Note that this is for the unused product.
Used product is a nonhazardous salt.
More information on this can be requested from PureAir.

14 SECTION 14: TRANSPORT INFORMATION

| | | | |
|--|--|------------------|------------------|
| UN number or ID number | None | None | None |
| UN proper shipping name | Activated Carbon | Activated Carbon | Activated Carbon |
| Transport hazard class(es) | None | None | None |
| Packing group | None | None | No |
| Environmental hazards | No | No | No |
| Special precautions for user | None Known | None Known | None Known |
| Maritime transport in bulk according to IMO instruments | International Regulations: The media contains less than 50% (by weight) activated carbon, which is produced by a steam activation process. Because of this the media is not subject to the provisions of the International Dangerous Goods Code (IMGD) or the labeling and packaging requirements of the International Maritime Organization (IMO) Class 4.2. | | |
| Additional Information | NMFC 40560 Activated Carbon, Purifying | | |

15 SECTION 15: REGULATORY INFORMATION

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|--------|---|--|
| 15.1 | Safety, health and environmental regulations/legislation specific for the substance or mixture (USA) | SARA Title III (Superfund Amendments and Reauthorization Act)- Section 312 Hazard Categories (40CFR370.2): Only expected as Acute (eye irritant), see section 11 TOXICOLOGICAL INFORMATION. |
| 15.1.1 | EU regulations Authorisations and/or Restrictions On Use | Not restricted for the intended use(s) of the product. Just note for classifications and labelling that it is an Xi- Irritant |
| | CoRAP Substance Evaluation | NA |
| 15.1.2 | Other National regulations USA | See 15.1 above. Otherwise, no known. California Proposition 65- product does not contain known substances to cause cancer or reproductive harm. |
| 15.2 | Chemical Safety Assessment | A chemical safety assessment is not required under REACH. |

16 SECTION 16: OTHER INFORMATION

Full list of H Statements:
Eye Irrit. 2; H319+H320
Skin Irrit. 2; H315

The following sections contain revisions or new statements: Updated substance / mixture classification. Updated version and date. New SDS Regulation 2020/878 format, all sections have been updated to include new information. Please review SDS with care.

References: Existing Safety Data Sheet (SDS) Substance with harmonized classification and labelling according to Regulation (EC) No. 1272/2008, Annex VI. Existing ECHA registration for Potassium permanganate (CAS No. 7722-64-7)



EU Classification: This Safety Data Sheet was prepared in accordance with EC Regulation (EC) 1907/2006 (REACH), 1272/2008 (CLP) & 2020/878

LEGEND

- ADR ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road CLP Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures
- CoRAP Community Rolling Action Plan (CoRAP)
- DNEL Derived no effect level
- EC50 Half maximal effective concentration
- IATA IATA: International Air Transport Association
- ICAO ICAO: International Civil Aviation Organization
- IMDG IMDG: International Maritime Dangerous Goods
- LC50 Lethal concentration at which 50% of the population is killed
- LD50 Lethal dose at which 50% of the population is killed
- LTEL Long term exposure limit
- OEL Occupational exposure limits
- PBT PBT: Persistent, Bioaccumulative and Toxic
- PNEC Predicted No Effect Concentration
- REACH Registration, Evaluation, Authorization and Restriction of Chemicals
- RID RID: Regulations concerning the international railway transport of dangerous goods STEL Short term exposure limit
- vPvB vPvB: very Persistent and very Bioaccumulative

Training advice: Consideration should be given to the work procedures involved and the potential extent of exposure as they may determine whether a higher level of protection is required.

Disclaimers

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