



SAFETY DATA SHEET

MSDS EU Template Version: 2.1 Date: August 1, 2022
 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	PureAir AC-X, PureAir AC-C
	Product Code	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	+1 (678) 935-1431 ; Office Hours are Monday through Friday, 8:00AM to 5:00PM Eastern Standard Time
	Fax	+1 (678) 935-0648
	E-mail (competent person)	ajameson@pureairfiltration.com
1.4	Emergency telephone number Emergency Phone No.	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.
	Language(s) spoken:	English

2 SECTION 2: HAZARDS IDENTIFICATION

2.1	Classification of the substance or mixture GHS-US and Regulation (EC) No. 1272/2008 (CLP) and most important hazards 1272/2008 (CLP).	This media is classified as not hazardous according to regulation (EC)
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) None

Hazard Statement(s) None

Precautionary Statement(s) None

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.
 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.

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)
Activated Carbon	100	7440-44-0	231-153-3	01-2119488716-22-XXXX	-

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. Rinse skin with water/shower. Gently wash with plenty of soap and water. Call a doctor and/or poison control center.
- Eye Contact** 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.
- Ingestion** IF SWALLOWED: Do NOT induce vomiting. Do not give anything by mouth to an unconscious person. Immediately call a doctor and poison control center.
- 4.2** Most important symptoms and effects, both acute and delayed See Section 11 for additional Toxicological Information.

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.

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



5 SECTION 5: FIREFIGHTING MEASURES

- 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. Burning produces irritant fumes. Not flammable but will support combustion.
- Activated carbons have high surface area which may cause self-heating during oxidation. Activated carbon is difficult to ignite and tends to burn slowly (smolder) without producing smoke or flame.
- Material allowed to smolder for long periods in enclosed spaces may produce amounts of carbon monoxide which reach the lower explosive limit (carbon monoxide LEL = 12.5% in air).



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:

Clean up spill with measures mentioned above. No extra measures necessary.

6.2 Environmental precautions

Collect spillage. Inform authorities if spill cannot be contained.

6.3 Methods and material for containment and cleaning up

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. If the spilled carbon contains dust or has the potential to create dust, use explosion-proof vacuums and/or cleaning systems suitable for combustible dusts. Dispose of unused material in a facility permitted for non-hazardous wastes. Spend (used) carbon should be disposed of in accordance with applicable laws.

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.

Do not store near combustible materials. Do not mix with combustible material. Activated carbon has high surface area which may cause self-heating during oxidation. Take precautionary measures against static discharge. All metal parts of the processing equipment must be grounded.

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. No smoking. Do not store together with strong oxidizing agents. Prior to entering a confined space that contains or previously contained activated carbon, the space should be evaluated for oxygen and carbon monoxide concentrations, and any other hazard, by a qualified person.

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
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

OSHA PEL (TWA) (15 mg/m³ total dust; 5 mg/m³ respirable fraction)

8.1.2 Occupational Exposure Limits

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



adequate.

Respiratory protective device may be necessary if local exhaust ventilation is not

8.2.3 Environmental Exposure Controls

Prevent release to the environment.



9 SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1	Information on basic physical and chemical properties	
	Physical state	Solid cylindrical pellets
	Color	Black
	Odor	No odor
	Melting point/freezing point	Not applicable. Boiling point or initial boiling point and boiling range
	Not applicable. Flammability	Not flammable
	Lower and upper explosion limit	Not explosive
	Flash point	Not applicable.
	Auto-ignition temperature	Not applicable.
	Decomposition Temperature	Not applicable.
	pH	Not applicable.
	Kinematic viscosity	Not applicable.
	Solubility	Not soluble in water
	Partition coefficient: n-octanol/water (log value)	Not applicable.
	Vapor pressure	Not applicable.
	Density and/or relative density	~ 30 lbs./ ft3, 480 kg/m3
	Relative vapor density	Not applicable.
	Particle characteristics	Median Particle Diameter 4mm
9.2	Other information	
	Oxidizing properties	Not applicable

10 SECTION 10: STABILITY AND REACTIVITY [Below information is generally applicable to all media. Verify 10.6]

10.1	Reactivity	May react exothermically upon contact with strong oxidizers.
10.2	Chemical stability	Stable under normal conditions
10.3	Possibility of hazardous reactions	None under normal processing
10.4	Conditions to avoid temperatures, and sunlight	Dust formation. Eliminate sources of ignition. Protect from moisture, damage, high
	Activated carbons have high surface area which may cause self-heating during oxidation.	
10.5	Incompatible materials	Strong acids. Strong oxidizing agents.

Hazardous decomposition product(s) Materials allowed to smolder for long periods in enclosed spaces may product amounts of carbon monoxide which reach the lower explosive limit (LEL = 12.5% in air). Used activated carbon may produce additional combustion products which are based on the substance(s) adsorbed, carbon oxides.

11 SECTION 11: TOXICOLOGICAL INFORMATION.

11.1	Information on hazard classes as defined in Regulation (EC) No 1272/2008	
	Acute toxicity - Ingestion	Expected to be low , not tested, the classification criteria are not met.
	Acute toxicity - Inhalation	Expected to be low , not tested, the classification criteria are not met.
	Acute toxicity - Skin Contact	Expected to be low , not tested, the classification criteria are not met. A
	Skin corrosion/irritation	Not classified
	Serious eye damage/irritation	Not classified
	Respiratory or skin sensitization classification criteria are not met.	Not classified Germ cell mutagenicity Expected to be low , not tested, the
	Carcinogenicity	Expected to be low , not tested, the classification criteria are not met.
	Reproductive toxicity	Expected to be low , not tested, the classification criteria are not met.
	STOT - single exposure	Expected to be low , not tested, the classification criteria are not met.
	STOT - repeated exposure	Expected to be low , not tested, the classification criteria are not met.
	Aspiration hazard	Mixture: Not relevant – solid mixture
11.2	Information on other hazards	
11.2.1	Endocrine disrupting properties	No substances identified as having endocrine-disrupting properties.
11.2.2	Other information	No data available



12 SECTION 12: ECOLOGICAL INFORMATION

12.1	Toxicity cross biological membranes. No adverse ecological effects	Nontoxic. The substance is highly insoluble in water and the substance is unlikely to be known.
12.2	Persistence and degradability	Not expected to degrade.
12.3	Bioaccumulative potential	Not expected due to physicochemical properties of the substance.
12.4	Mobility in soil	Not expected to migrate. Insoluble.
12.5	Results of PBT and vPvB assessment	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 Spent (used) activated carbon may be classified as a non-hazardous or hazardous waste depending upon its use, the substance(s) adsorbed, and how it is ultimately managed. Follow applicable regulations for disposal.	Unused activated carbon is not a hazardous material or hazardous waste.
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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	No information available.		

Additional Information NMFC 40560 Activated Carbon, Purifying

15 SECTION 15: REGULATORY INFORMATION

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 CoRAP Substance Evaluation	Not restricted for the intended use(s) of the product. Just note for classifications and labelling that it is an Xi- Irritant 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:

None

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.

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