SAFETY DATA SHEET

Version: 2.0 Date: March 1, 2022

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

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

1.1 Product identifier

Product Name	PureAir NOXsorb
Product Code	NOX

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

Identified Use(s)	Gas-phase air filtration
Uses Advised Against	Do not use for applications other than those specified. It does not remove particulates or biological agents. Not for water purification.

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

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Regulation (EC) No. 1272/2008 (CLP)	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

2.2 Label elements

	According to Regulation (EC) No. 1272/2008 (CLP)
Product Name	NOXsorb
Contains:	Activated carbon, proprietary impregnant

Hazard Pictogram(s)	
Signal Word(s)	Warning
Hazard Statement(s)	H315: Causes Skin Irritation. H319 & H320- Causes Eye Irritation
Precautionary Statement(s)	P264: Wash hands thoroughly after handling. P280: Wear protective gloves, protective clothing, and eye/face protection. P303+P352: IF ON SKIN: Wash with plenty of soap and water. P332+P313: IF SKIN irritation occurs: Get medical advice/attention. P362: Take off contaminated clothing and wash before reuse
Supplemental information	P401: Store in a cool, dry area in enclosed containers.

2.3 Other hazards

- If crushed or handled extensively, dust may evolve and can be irritating to the eyes, skin, or respiratory tract.
- Confined space entry. Appropriate safety precautions should be taken when entering any confined space. Entering containers or media vessel/tanks housing activated carbon may remove oxygen from the air causing severe hazards for workers entering such spaces. Before and during the entrance of a confined space, all local, state, and federal regulations should be followed.
-The following medical conditions may be aggravated by exposure to the products: asthma, chronic lung disease, and skin rashes.
-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) EC-REGULATIONS 1907/2006 (REACH), 1272/2008 (CLP) & 2020/878.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Mixtures

EC Classification Regulation (EC) No. 1272/2008 (CLP)

Chemical identity of the substance	%W/W	CAS No.	EC No.	REACH Registration No.	Hazard Statement(s)
Carbon	85	7722-64-7	231-760-3	01-2119488894-16-XXXX	Eye Irrit. 2; H319+H320 Skin Irrit. 2; H315

Proprietary Ingredient	5 - 10	NA	NA	NA	NA

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

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. Seek medical attention if respiratory symptoms develop.
Skin Contact	IF ON SKIN (or hair): Gently wash with plenty of soap and water. Seek medical assistance if irritation persists.
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.
Ingestion	IF SWALLOWED: Do NOT induce vomiting. Give one or two glasses of water to drink. Seek medical assistance.

4.2 Most important symptoms and effects, both acute and delayed — If crushed or handled extensively, dust may evolve and can be irritating to the eyes, skin, or respiratory tract.

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

Notes to a physician: Product is expected to be non-toxic and only an eye irritant in the powder form. Treatment is recommended to be symptomatic and supportive. Other information: This media is classified by the manufacturer for health effects according to EU Directive 1999/45/EC with Xi; R36/37/38

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 fire with carbon dioxide, dry chemical, foam, or water spray. Alcohol resistant foams (ATC type) are preferred. Avoid stirring up dust clouds.
Unsuitable extinguishing media	Do not use water jet. Wet activated carbon depletes oxygen from the air. Materials allowed to smolder for long periods in enclosed spaces may product 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 — See above

5.3	**Advice for fire-fighters**	Fire fighters should wear NIOSH approved, positive pressure, self-contained breathing apparatus and full protective clothing. Do not breathe fumes. Further precautions noted above.

SECTION 6: ACCIDENTAL RELEASE MEASURES

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:	Avoid exposure. Clean up spill immediately.
	Oxidizing	Not an oxidizer
6.2	**Environmental precautions**	Collect spillage. Avoid release to environment.
6.3	**Methods and material for containment and cleaning up**	Clean up using dry procedures (broom, shovel, etc.); avoid dusting. Do not mix with combustible material. Product may be recovered for use if it has not come in contact with liquid, changed color, or been exposed to significant amounts of gaseous contaminants.
	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

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. Not an oxidizer, but contact with strong oxidizers could intensify fire.

7.2	**Conditions for safe storage, including any incompatibilities**	Keep in closed container. Store in a cool/low-temperature, well-ventilated (dry) place away from heat and ignition sources. Control dust formation. Recommended to package in plastic-lined corrugated boxes, or in bulk sacks. Do not package in a porous material that allows contact to air, water, and contaminants.
	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	Protect from moisture. Keep away from strong oxidizing substances. Product should be kept protected from water and exposure to contaminated air (gaseous, Particulate, and aerosol contaminated), otherwise the product may be rendered useless.
7.3	**Specific end use(s)**	See Section: 1.2

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

8.1.1 Occupational Exposure Limits

USA OSHA PEL- 5mg/m3 respirable fraction, 15mg/m3 total dust

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

8.1.2 Biological limit value

None Known

8.1.3 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. Preferably use engineering controls to keep exposures low. Minimize eye and skin contact by using appropriate protective equipment. Use local or general room ventilations to control airborne dust that may be generated.

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 particle filter

8.2.3 Environmental Exposure Controls — Prevent release to the environment.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Physical state	Solid cylindrical pellets
Colour	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	Insoluble.
Partition coefficient: n-octanol/water (log value)	Not applicable

	Vapor pressure	Not applicable.
	Density and/or relative density	No data available
	Relative vapor density	Not applicable.
	Particle characteristics	Median Particle Diameter 4mm
9.2	**Other information**	
	Oxidizing properties	Not an oxidizer
	Bulk density	480 kg/m³ (30-40 lb./ft³)

SECTION 10: STABILITY AND REACTIVITY

10.1	**Reactivity**	Stable under normal conditions
10.2	**Chemical stability**	Stable under normal conditions
10.3	**Possibility of hazardous reactions**	Involvement in fire may release carbon monoxide and dioxide. Click or tap here to enter text.
10.4	**Conditions to avoid**	Protect from high temperatures and direct sunlight.
10.5	**Incompatible materials**	Strong acids and oxidizing agents.
10.6	**Hazardous decomposition product(s)**	Hazardous combustion products: Oxides of carbon and sulfur dioxide

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.
	Skin corrosion/irritation	**Expected to be low,** not tested, the classification criteria are not met.
	Serious eye damage/irritation	**Expected to be low,** not tested, the classification criteria are not met.
	Respiratory or skin sensitization	**Expected to be low,** not tested, the classification criteria are not met.
	Germ cell mutagenicity	**Expected to be low,** not tested, the classification criteria are not met.
	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	**Expected to be low,** not tested, the classification criteria are not met.
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

SECTION 12: ECOLOGICAL INFORMATION

12.1	**Toxicity**	
12.2	**Persistence and degradability**	No data for the mixture as a whole.
12.3	**Bioaccumulative potential**	No data for the mixture as a whole.
12.4	**Mobility in soil**	No data for the mixture as a whole.
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

SECTION 13: DISPOSAL CONSIDERATIONS

13.1	**Waste treatment methods**	Dispose of wastes in an approved waste disposal facility. NOXsorb converts to a harmless salt after bind with NOx, thereby eliminating any concern on toxicity, or hazardous waste requirements. Because of this, NOXsorb does not typically have restrictions on disposal. Consult your local municipality for any disposal

requirements.

SECTION 14: TRANSPORT INFORMATION

		ADR/RID/DOT	IMDG	IATA/ICAO
14.1	**UN number or ID number**	None	None	None
14.2	**UN proper shipping name**	Activated Carbon	Activated Carbon	Activated Carbon
14.3	**Transport hazard class(es)**	None	None	None
14.4	**Packing group**	None	None	No
14.5	**Environmental hazards**	No	No	No
14.6	**Special precautions for user**	None Known	None Known	None Known
14.7	**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.		
14.8	**Additional Information**	NMFC 40560 Activated Carbon, Purifying		

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	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.

SECTION 16: OTHER INFORMATION

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 carbon and magnesium oxide.

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

Classification of the substance or mixture according to Regulation (EC) No. 1272/2008 (CLP)	Classification Procedure
Skin Irr 2: H315	Calculation method
Eye Irr 2: H319 and H320	Calculation method

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

Hazard classification / Classification code:	**Hazard Statement(s)**
Skin Irr 2	H315: Causes skin irritation
Eye Irr 2	H319 and H320- causes eye irritation

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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