

SAFETY DATA SHEET

Version: 3.0 Date: April 2024

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

Section 1: Identification		
1.1	Product identifier Product Name	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.
1.3	Company Identification Details of the supplier of the safety data sheet	<p>Pure Air Filtration, LLC 6050 Peachtree Parkway Suite 240-187 Atlanta, GA 30092 USA</p> <p>PureAir Filtration BV Tijnmuiden 79 1046 AK Amsterdam, The Netherlands</p>
	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	info@pureairfiltration.com
1.4	Emergency telephone number	<p>VelocityEHS 1-800-255-3924 (United States, Canada, Puerto Rico, U.S. Virgin Islands) +1-813-248-0585 (International, collect calls are accepted) 1-300-954-583 (Australia) 0-800-591-6042 (Brazil) 400-120-0751 (China) 000-800-100-4086 (India) 800-099-0731 (Mexico)</p> <p><i>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.</i></p>
	Language(s) spoken:	English

Section 2: Hazard(s) Identification

2.1
Classification of the substance or mixture GHS-US and Regulation (EC) No. 1272/2008 (CLP) and most important Hazards

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

Hazard Pictograms(s)



Signal Word(s)

Warning

Hazard Statements

H315: Causes skin irritation.
 H319 & H320: Causes serious eye irritation.

Precautionary Statements

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
 Other Hazards**

P401: Store in a cool, dry area in enclosed containers.
 If crushed or handled extensively, dust may evolve which can cause irritation to eyes and respiratory tract. Adding water can cause irritation to skin.
 The following medical conditions may be aggravated by exposure to the products: asthma, chronic lung disease, and skin rashes.
 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.

**2.3
 Hazards not otherwise classified (HNOC) or not covered by GHS**

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

Chemical Name	%W/W	CAS No.	EC No.	REACH Registration No.	Hazard Statement(s)
Activated Carbon	75- 85	7440-44-0	231-153-3	01-2119488716-22-XXXX	Not Classified
Proprietary Ingredient	5 - 10	NA	NA	NA	NA

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.

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. Seek medical assistance if irritation persists.

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.

IF INHALED: If breathing is difficult, move to fresh air and keep at rest in a position comfortable for breathing. Seek medical attention if respiratory symptoms develop.

IF SWALLOWED: Do NOT induce vomiting. Do not give anything by mouth to an unconscious person. 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. 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.

Section 5: Fire-Fighting Measures

5.1

Suitable extinguishing media

If possible, to do so safely, move smoldering activated carbon to a non-hazardous area, preferably 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 jets. Direct water jets 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 protective equipment for firefighters

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.

5.3**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 a 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.

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.

Section 6: Accidental Release

6.1**Personal precautions, Protective Equipment, and Emergency Procedures**

Ensure operatives are trained to minimize exposure. 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 flame and other ignition sources. No smoking.

6.2**Environmental precautions**

Collect spillage. Inform authorities if spill cannot be contained.

6.3**Methods and material for containment and cleaning up**

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

Do not mix with combustible material. Clean up using dry procedures (broom, shovel, etc.); avoid dusting. 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. Spent (used) carbon should be disposed of in accordance with applicable laws.

6.4**Reference to other sections**

See also Section 8, 13

Section 7: Handling and Storage

7.1**Precautions for safe handling**

Ensure operators 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.

7.2**Conditions for safe storage, including any incompatibilities.**

Do not store near combustible materials. Do not mix with combustible material. Not an oxidizer, but contact with strong oxidizers could intensify fire.

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 or acids. 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

Protect from moisture. Keep away from strong oxidizing substances, acids, and combustible materials.

7.3**Specific end use(s)**

See Section 1.2.

Section 8: Exposure Controls / Personal Protection

8.1

Control Parameters Related to Substance – Carbon

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

Occupational Exposure Limits

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 PELs: 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
- 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

Biological Limit Value:

None Known

PNECs and DNELs

Not Applicable

8.2

Exposure Controls

Appropriate Engineering Controls

Ensure operators 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.

8.3

Environmental Exposure Controls

Prevent release to the environment.

8.4

Personal Protection Equipment (PPE)

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 the 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	Hand & Skin Protection	Respiratory Protection
Use eye protection according to EN 166, designed to protect against dust. For Small Quantities: Not Normally Required	Wear gloves to EN374 to protect against skin effects from powders. Wear suitable coveralls to prevent exposure to the skin.	Respiratory protective devices with a particle filter may be necessary if local exhaust ventilation is not adequate.

Section 9: Physical and Chemical Properties

9.1
Basic physical and chemical properties

Physical state:	Solid cylindrical pellets
Color:	Black
Odor:	No Odor
Melting point/melting range:	N/A
Boiling point/boiling range:	N/A
Flammability:	Not flammable
Lower and upper explosion limits:	Not explosive.
Flash point:	N/A
Auto ignition temperature:	N/A
Decomposition temperature:	N/A
pH:	N/A
Kinematic viscosity:	N/A
Solubility:	Partially soluble in water
Partition coefficient n-octanol/water (log value):	N/A
Vapor pressure:	N/A
Density and/or Relative density:	~ 30- 38 lbs/ft ³ , 480-610 kg/m ³
Relative vapor density:	N/A
Particle Characteristics:	Median Particle Diameter 4mm

9.2
Other Information
Oxidizing Properties: Not an oxidizer

Section 10: Stability and Reactivity

10.1
Reactivity
 May react exothermically upon contact with strong oxidizers or high concentration acids.

10.2
Chemical stability
 Stable under normal conditions

10.3
Possibility of hazardous reactions
 None under normal processing. Exposure to excessive heat and high concentration acids may release sulfur dioxide.

10.4
Conditions to avoid
 Dust formation. Eliminate sources of ignition. Protect from moisture, heat, damage, high temperatures, and sunlight.

10.5
Incompatible materials
 High concentration acids. Strong oxidizing agents.

10.6
Hazardous decomposition products
 Materials allowed to smolder for long periods in enclosed spaces may produce 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.

Exposure to excessive heat and high concentration acids may release 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

Endocrine disrupting properties	No substances identified as having endocrine-disrupting properties.
Other information	No data available.

Section 12: Ecological Information

12.1

Toxicity: Nontoxic and non-hazardous. The substance is partially soluble in water and the substance is unlikely to cross biological membranes. No adverse ecological effects are known.

12.2

Persistence and degradability No data for the mixture as a whole.

12.3

Bioaccumulation 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 Disposal Methods

Unused activated carbon is not a hazardous material or hazardous waste. Dispose of waste in an approved waste disposal facility, according to local laws.

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.

Section 14: Transport Information

14.1

Transportation Information

	ADR/RID/DOT	IMDG	IATA/ICAO
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	None
Environmental Hazards	No	No	No
Special Precautions for User	None Known	None Known	None Known

14.2

Maritime transport in bulk according to IMO instruments

The media contains 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 (IMDG) or the labeling and packaging requirements of the International Maritime Organization (IMO) Class 4.2.

14.3

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

US Federal Regulations

SARA Title III - Section 312 (hazard category): (40CFR370.2): Only expected as Acute (eye irritant), see section 11 TOXICOLOGICAL INFORMATION.

Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs): No

TSCA (Toxic Substances Control Act): No

EU Regulations

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

N/A

Other National Regulations

Other Not 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. 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.

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

16.1

Full list of H Statements

- H315: Causes skin irritation.
- H319: Causes serious eye irritation.
- H320: Causes eye irritation.

16.2

LEGEND for acronyms used in this SDS / MSDS

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, Bio accumulative 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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