

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	CPS12 Blend (SP)
	Product Code	CPS12BM
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	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	info@pureairfiltration.com
1.4	Emergency telephone number	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) <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>
	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

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.

2.2

Label Element:	According to Regulation (EC) No. 1272/2008 (CLP)
Product Name:	CPS12 Blend (SP)
Contains:	Aluminum Oxide, Activated Carbon, Sodium Permanganate

Hazard Pictogram(s)



Signal Word(s)

Warning

Hazard Statements

Eye Irrit. 2 H319 + H320
Skin Irrit. 2 H315
Resp. Irrit. H335

Precautionary Statements

P210: Keep away from heat, hot surfaces, sparks, open flames and other Ignition sources. No smoking.
P220: Keep away from clothing and other combustible materials.
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

Supplemental Information Other Hazards

Not applicable
Not known.

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.

Section 3: Composition/ Information on Ingredients

Chemical Name	%W/W	CAS No.	EC No.	REACH Registration No.	Hazard Statement(s)
Aluminum oxide	30-60	1344-28-1	215-691-6	01-2119529248-35-XXXX	Not Classified
Activated carbon	40-70	7440-44-0	231-153-3	01-2119488716-22-XXXX	Not Classified
Sodium permanganate	2-8	10101-50-5	233-251-1	01-2119495598-15-xxxx	Ox. Sol. 2; H272 Acute Tox. 4; H302 Skin Corr. 1C; H314 Eye Damage H318 Aquatic Chronic 1; H410

NOTE: For full text of H phrases see Section 16.

* 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).

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. Call a doctor and/or poison control center.

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 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.

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.

Causes skin and eye irritation. 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

As appropriate for surrounding fire. Extinguish with carbon dioxide, dry chemical, foam, or water spray. Alcohol resistant foams (ATC type) are preferred.

Unsuitable extinguishing media

Do not use water jets. Direct water jet may spread the fire.

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.

Oxidizer characteristics

Contains an oxidizing substance (sodium permanganate). May intensify fire. 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.

5.3

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. Do not breathe fumes. Keep containers cool by spraying with water if exposed to fire. Do not allow run-off from fire-fighting to enter drains or water courses. All contaminated wastewater must be processed in an industrial or municipal wastewater treatment plant.

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.

Small spillages

Clean up spill immediately. No extra measures necessary.

Oxidizer characteristics

Contains an oxidizing substance (sodium permanganate). 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

Collect spillage. Avoid release to the environment. Do not allow to enter drains, sewers, or watercourses.

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. Use vacuum equipment for collecting spilt materials, where practicable.

Small Spillages

Sweep up spilled substance and remove to safe place. Do not use saw dust. 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 operators are trained to minimize exposures. Use personal protective equipment as required.

See Sectio 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.

Oxidizer characteristics

Contains an oxidizing substance (sodium permanganate). Do not store near combustible materials. Do not mix with combustible material. Take precautionary measures against static discharge.

7.2

Conditions for safe storage, including any incompatibilities.

Do not store near combustible materials. Do not mix with combustible material.

Keep container tightly closed. Store in a cool/low-temperature, well-ventilated (dry) place away from heat and ignition sources.

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.

Storage temperature

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

Incompatible materials

Protect from moisture. Keep away from acids, reducing agents, strong oxidizing substances, 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 – Aluminum oxide

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

Ireland HAS (Code of Practice) recommends 10 mg/ m³ (8hr TWA) total inhalable dust; 4 mg/ m³ (8hr TWA) total respirable dust.

Related to Substance – Activated Carbon

OSHA PEL (TWA) (15 mg/m³ total dust; 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)**

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 may be necessary if local exhaust ventilation is not adequate.

Thermal hazards

Exothermic reaction with acids or reducing agent. Wear a Heat Protective Suit.

Section 9: Physical and Chemical Properties

9.1**Basic physical and chemical properties**

Physical state:	Solid cylindrical and spherical pellets
Color:	Purple and 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
Bulk Density:	~ 40 lbs/ft ³ , 640 kg/m ³
Relative vapor density:	N/A
Particle Characteristics:	Median Particle Diameter 4mm

9.2**Other Information****Oxidizing Properties:**

Contains an oxidizing substance (sodium permanganate). The final product is considered to have 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.

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

May occur in contact with strong acids, strong oxidizing agents, or reducing agents.

10.4

Conditions to avoid

Protect from moisture, heat sources, open flames, and other ignition sources.

10.5

Incompatible materials

Acids. Strong reducing and oxidizing agents. Combustible materials.

10.6

Hazardous decomposition products

Potassium oxide, manganese, oxides of manganese.

Section 11: Toxicological Information

11.1

Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity – Ingestion:

Based on available data, the classification criteria are not met.
Acute Toxicity Estimate Mixture Calculation: LD50 > 2000 mg/kg bw/day.

Acute toxicity – Inhalation:

Based on available data, the classification criteria are not met.
Acute Toxicity Estimate Mixture Calculation: LC50 > 20ml/l

Acute toxicity – Skin contact:

Based on available data, the classification criteria are not met.
Acute Toxicity Estimate Mixture Calculation: LD50 > 2000 mg/Kg bw/day.

Skin corrosion/irritation:

Skin. Irrit. 2 H315

Serious eye damage/irritation:

Eye Irrit. 2 H319 + H320.

Respiratory or skin sensitization:

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

Germ cell mutagenicity:

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

Carcinogenicity:

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

Reproductive toxicity:

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

STOT – single exposure:

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

STOT – repeated exposure:

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

Aspiration hazard:

Not relevant -solid mixture

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

No data, but mixture is only partially (very small percentage) soluble in water.

12.2

Persistence and degradability: No data is available for the mixture. Sodium permanganate testing can be waived because the substance is an inorganic compound.

12.3

Bioaccumulation: No data is available for the mixture. Sodium permanganate testing can be waived because the substance is an inorganic compound.

12.4

Mobility in soil: No data is available for the mixture. Sodium permanganate testing can be waived because the substance is an inorganic compound.

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

Waste Disposal Methods

Dispose of wastes in an approved waste disposal facility, in accordance with local laws

Note: This is for unused product. Used product is a nonhazardous salt.

Section 14: Transport Information

14.1**Transportation Information**

	ADR/RID/DOT	IMDG	IATA/ICAO
UN Number or ID Number	Not regulated	Not regulated	Not regulated
UN Proper Shipping Name	Not assigned	Not assigned	Not assigned
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 50% 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: Not applicable

Section 15: Regulatory Information

15.1

Safety, health and environmental regulations/legislation specific for the substance or mixture

National Regulations

Germany

Possible water hazard, unclassified.

United States

National Inventory TSCA- All components are listed under the TSCA 8 b inventory as active or exempted. No components are listed under TSCA 12 b

CERCLA Section 304: Sodium permanganate reportable quantity (RQ) 100 lbs (45.4 kg).

EPCRA Section 311/312 Hazards: Sodium permanganate: fire hazard, immediate (acute) health hazard, delayed health hazard.

EPCRA Section 313 Toxic Release inventory: Sodium permanganate

USA State Regulations

Air Act Section 112b; Cal. Proposition 65- No known cancer-causing ingredients.

EU Regulations

Authorizations and/or Restrictions On Use

Not restricted for the intended use(s) of the product.

CoRAP Substance Evaluation

Substance identified for evaluation in 2017 evaluating Member State has concluded that no additional information is required

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. Existing ECHA registration for Sodium permanganate (CAS No. 10101-50-5)

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
Acute Tox.3 (Oral); H301	Expert judgement
Acute Tox. 4: H302	Calculation method
Skin Corr. 1A; H314	Calculation method
Skin Irrit 2: H315	Calculation method
Eye Dam. 1; H318	Calculation method
Eye Irrit. 2; H319 + H320	Calculation method
Resp Irrit. H335	Calculation method

16.1

Full list of H Statements

Ox. Sol. 2; Oxidizing solid, Category 2
 Acute Tox. 4; Acute Toxicity, Category 4
 Skin Corr. 1C; Skin corrosion/irritation, Category 1C
 Skin Irrit. 2; Skin irritation, Category 2
 Eye Dam. 1; Eye damage, category 1
 Eye Irrit. 2; Eye irritation, Category 2

Resp. Irrit.; Respiratory irritation

Resp.1; Respiratory System damage, category 1

Aquatic Acute 1; Hazardous to the aquatic environment, acute, Category 1

Aquatic Chronic 1; Hazardous to the aquatic

H272: May intensify fire; oxidizer.
 H302: Harmful if swallowed.
 H314: Causes severe skin burns and eye damage.
 H315: Causes skin irritation.
 H318: Causes serious eye damage.
 H319 + H320: Causes serious eye irritation and causes eye irritation.
 H335: May cause respiratory irritation.

H370: Causes damage to respiratory system through prolonged or repeated exposure.

H400: Very toxic to aquatic life.

environment, Chronic, Category 1

H410: Very toxic to aquatic life with long lasting effects.

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.

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