SAFETY DATA SHEET

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

1.1. **Product identifier:**
460005 Mercury Vapor Suppressor

Chemical name: Carbon
CAS number: 7440-44-0
EC number: 231-153-3
Registration number is not available for this substance since this substance or its use is exempted from registration based on Article 2 of REACH regulation, or registration is not necessary due to the annual tonnage band.

1.2. **Relevant identified uses of the substance or mixture and uses advised against:**
Vapour suppressor for industrial and professional use.

1.3. **Details of the supplier of the safety data sheet:**

Information about the manufacturer:
FyterTech Nonwovens, LLC
2121-B American Blvd
De Pere, WI 54115
Tel: (800) 615-8699
Web: www.fytertech.com
Email: cs@fytertech.com

1.3.1. Responsible person: Customer Service
E-mail: cs@fytertech.com

1.4. **Emergency telephone number:** (800) 424-9300 (USA); +1 (703) 527-3887 (International and Maritime)

SECTION 2: HAZARDS IDENTIFICATION

2.1. **Classification of the substance or mixture:**

Classification according to Regulation (EC) No 1272/2008 (CLP):

Not considered as hazardous substance.

Hazard statements: No hazard statements.

2.2. **Label elements:**

Chemical name: Carbon
CAS number: 7440-44-0
EC number: 231-153-3

Hazard statements: No hazard statements.

Precautionary statements: No precautionary statements.

2.3. **Other hazards:**

Exposure may aggravate pre-existing eye, skin, or respiratory conditions.
May form combustible dust concentrations in air. Accumulation and dispersion of dust with an ignition source can cause a combustible dust explosion. Keep dust levels to a minimum and follow applicable regulations. Wet activated carbon depletes oxygen from air and, therefore, dangerously low levels of oxygen may be encountered. Whenever workers enter a vessel containing activated carbon, the vessel's oxygen content should be determined and work procedures for potentially low oxygen areas be followed
Results of PBT and vPvB assessment: Not relevant – no registration required.
Endocrine disrupting property: Not an endocrine disruptor.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. **Substances:**

Chemical name: Carbon
Synonym: Activated carbon
CAS number: 7440-44-0
EC number: 231-153-3; 931-328-0
Molecular formula: C
Purity: 100 %

SECTION 4: FIRST AID MEASURES

4.1. **Description of first aid measures**:

General information: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

INGESTION:

Measures:

- Rinse mouth.
- Do NOT induce vomiting.
- Obtain medical attention.

INHALATION:

Measures:

- Use proper respiratory protection, move the exposed person to fresh air at once.
- Encourage exposed person to cough, spit out, and blow nose to remove dust.
- Immediately call a poison centre, physician, or emergency medical service.

SKIN CONTACT:

Measures:

- Remove contaminated clothing.
- Drench affected area with water for at least 5 minutes.
- Obtain medical attention if irritation develops or persists.

EYE CONTACT:

Measures:

- Rinse cautiously with water for at least 5 minutes.
- Remove contact lenses, if present and easy to do. Continue rinsing.
- Obtain medical attention if irritation develops or persists.

4.2. **Most important symptoms and effects, both acute and delayed:**

Symptoms/effects: Not expected to present a significant hazard under anticipated conditions of normal use.
Symptoms/effects after inhalation: Dust may be harmful or cause irritation. Wet activated carbon removes oxygen from air causing a severe hazard to workers inside carbon vessels and enclosed or confined spaces. Before entering such an area, sampling and work procedures for low oxygen levels should be taken to ensure ample oxygen availability, observing all regulations.
Symptoms/effects after skin contact: Prolonged exposure may cause skin irritation. Skin contact with large amounts of dust may cause mechanical irritation.
Symptoms/effects after eye contact: May cause slight irritation to eyes. May cause mechanical eye irritation.
Symptoms/effects after ingestion: Ingestion may cause adverse effects.
Chronic symptoms : None known.

4.3. **Indication of any immediate medical attention and special treatment needed:**

If exposed or concerned, get medical advice and attention.
If medical advice is needed, have product container or label at hand.

SECTION 5: FIREFIGHTING MEASURES

5.1. **Extinguishing media:**

5.1.1. **Suitable extinguishing media:**

Water spray, fog, carbon dioxide (CO_2), alcohol-resistant foam, or dry chemical.

5.1.2. **Unsuitable extinguishing media:**

Do not use full water jet, because it can disperse and spread fire.

5.2. **Special hazards arising from the substance or mixture:**

Combustible dust.

Dust explosion hazard in air.

Hazardous reactions will not occur under normal conditions. This product may react with strong oxidizing agents. Contact with ammonium or ammonium compounds will cause the generation of gases.

In case of fire, smoke and other combustion products (carbon oxides (CO, CO_2)) may be formed; the inhalation of such combustion products can have serious adverse effects on health.

5.3. **Advice for firefighters:**

Exercise caution when fighting any chemical fire.

Do not enter fire area without proper protective equipment, including respiratory protection.

Cool the fire-affected containers with water spray. Avoid raising dust.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. **Personal precautions, protective equipment and emergency procedures:**

6.1.1. **For non-emergency personnel:**

Allow only well-trained experts wearing suitable protective clothing to abide in the field of the accident.

Use appropriate personal protective equipment (PPE). Evacuate unnecessary personnel.

6.1.2. **For emergency responders:**

Avoid all contact with skin, eyes, or clothing. Avoid breathing dust. Avoid generating dust. Remove ignition sources. Keep away from heat, hot surfaces, sparks, open flames, and other ignition sources. No smoking.

Equip clean-up crew with proper protection.

Upon arrival at the scene, a first responder is expected to recognize the presence of dangerous goods, protect oneself and the public, secure the area, and call for the assistance of trained personnel as soon as conditions permit. Ventilate area.

6.2. **Environmental precautions:**

Dispose of the spillage and the resulting waste according to the applicable environmental regulations. Do not allow the product and the resulting waste to enter sewers/soil/surface or ground water. Notify the respective authorities in accordance with local law in the case of environmental pollution immediately.

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

For containment: Contain solid spills with appropriate barriers and prevent migration and entry into sewers or streams. Avoid generation of dust during clean-up of spills.

Methods for cleaning up: Clean up spills immediately and dispose of waste safely. Use explosion proof vacuum during clean-up, with appropriate filter. Do not mix with other materials. Vacuum clean-up is preferred. If sweeping is required use a dust suppressant. Use only non-sparking tools. Contact competent authorities after a spill.

6.4. **Reference to other sections:**

For further and detailed information see Sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1. **Precautions for safe handling:**

Observe conventional hygiene precautions.

Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

Avoid prolonged contact with eyes, skin and clothing.

Avoid breathing dust.

Use appropriate personal protective equipment (PPE).

Observe the pertinent regulations on industrial safety and basic hygiene rules.

Technical measures:

Wet activated carbon depletes oxygen from air and, therefore, dangerously low levels of oxygen may be encountered. Whenever workers enter a vessel containing activated carbon, the vessel's oxygen content should be determined and work procedures for potentially low oxygen areas be followed.

Avoid creating or spreading dust.

Precautions against fire and explosion:
Accumulation and dispersion of dust with an ignition source can cause a combustible dust explosion.
Keep dust levels to a minimum and follow applicable regulations.
Keep away from heat, sparks, open flames, and hot surfaces. No smoking.

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

Technical measures and storage condition:
Comply with applicable regulations.
Avoid creating or spreading dust.
Use explosion-proof electrical, ventilating, lighting equipment.
Proper grounding procedures to avoid static electricity should be followed.
Keep container closed when not in use.
Store in a dry, cool and well-ventilated place.
Keep/Store away from direct sunlight, extremely high or low temperatures and incompatible materials.
Keep/store only in original packaging.
Storage temperature: <50 °C with relevant humidity < 70 %.
Incompatible materials: See Section 10.5.
Packaging material: No special prescriptions.

7.3. **Specific end use(s):**
No specific instructions available.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. **Control parameters:**

Occupational exposure limit values (Commission Directive (EC) No 2000/39 of 8 June 2000):
The substance is not regulated with exposure limit value.

DNEL values		Oral exposure		Dermal exposure		Inhalative exposure	
		Short term (acute)	Long term (chronic)	Short term (acute)	Long term (chronic)	Short term (acute)	Long term (chronic)
Consumer	Local	no data	no data	no data	no data	no data	no data
	Systemic	no data	no data	no data	no data	no data	no data
Worker	Local	no data	no data	no data	no data	no data	no data
	Systemic	no data	no data	no data	no data	no data	no data

PNEC values		
Compartment	Value	Note(s)
Freshwater	no data	no notes
Marine water	no data	no notes
Freshwater sediment	no data	no notes
Marine water sediment	no data	no notes
Sewage Treatment Plant (STP)	no data	no notes
Intermittent release	no data	no notes
Secondary poisoning	no data	no notes
Soil	no data	no notes

8.2. **Exposure controls:**
In case of a hazardous material with no controlled concentration limit it is the employer's duty to keep concentration levels down to a minimum achievable by existing scientific and technological means, where the hazardous substance poses no harm to workers.

8.2.1. **Appropriate engineering controls:**
In pursuance of work is proper foresight needed to avoid spilling onto clothes and floors and to avoid contact with eyes and skin. Suitable eye/body wash equipment should be available in the vicinity of any potential exposure. Ensure adequate ventilation, especially in confined areas. Proper grounding procedures to avoid static electricity should be followed. Use explosion-proof equipment. Use local exhaust or general dilution ventilation or other suppression methods to maintain dust levels below exposure limits. Power equipment should be equipped with proper dust collection devices. It is recommended that all dust control equipment such as local exhaust ventilation and material transport systems involved in handling of this product contain explosion relief vents or an explosion suppression system or an oxygen-deficient environment. Wet activated carbon removes oxygen from air causing a severe hazard to workers inside carbon vessels and enclosed or confined spaces. Before entering such an area,

sampling and work procedures for low oxygen levels should be taken to ensure ample oxygen availability, observing all local, state, federal or national regulations. Ensure all national/local regulations are observed.

8.2.2. **Individual protection measures, such as personal protective equipment:**
Materials for protective clothing: Chemically resistant materials and fabrics.
Do not eat, drink, or smoke when using this product.

1. **Eye/face protection:** Use appropriate protective glasses (EN ISO 16321-1:2022; EN 166).
2. **Skin protection:**
   a. **Hand protection:** Use appropriate protective gloves (EN 374).
   b. **Other:** Use appropriate protective clothing.
3. **Respiratory protection:** If exposure limits are exceeded or irritation is experienced, approved respiratory protection should be worn. In case of inadequate ventilation, oxygen deficient atmosphere, or where exposure levels are not known wear approved respiratory protection.
4. **Thermal hazards:** No thermal hazards known.

8.2.3. **Environmental exposure controls:**
No specific prescription.
The requirements detailed in Section 8 assume skilled work under normal conditions and usage of the product for appropriate aims. If conditions differ from normal or work is carried out under extreme conditions, an expert's advice is necessary before deciding upon further protective measures.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. **Information on basic physical and chemical properties:**

	Parameter	Value / Test method / Remarks
1.	Physical state	irregular, dry granular solid
2.	Colour	black
3.	Odour, odour threshold	odourless
4.	Melting point/freezing point	no data*
5.	Boiling point or initial boiling point and boiling range	no data*
6.	Flammability	no data*
7.	Lower and upper explosion limit	no data*
8.	Flash point	no data*
9.	Auto-ignition temperature	350 °C
10.	Decomposition temperature	no data*
11.	pH	no data*
12.	Kinematic viscosity	no data*
13.	Solubility in water in other solvents	insoluble no data*
14.	Partition coefficient n-octanol/water (log value)	no data*
15.	Vapour pressure	no data*
16.	Density and/or relative density	1.9 – 2.2 (water = 1)
17.	Relative vapour density	0.4 – 0.8
18.	Particle characteristics	no data*

9.2. **Other information:**

9.2.1. **Information with regard to physical hazard classes:**
Combustible dust. Dust explosion hazard in air.

9.2.2. **Other safety characteristics:**
No other characteristics available.

*: The manufacturer did not carry out any tests on this parameter for the product or the results of the tests are not available at the time of publication of the data sheet, or the property is not applicable for the product.

SECTION 10: STABILITY AND REACTIVITY

10.1. **Reactivity:**
Hazardous reactions will not occur under normal conditions.
This product may react with strong oxidizing agents.
Contact with ammonium or ammonium compounds will cause the generation of gases.

10.2. **Chemical stability:**
Stable under recommended handling and storage conditions (see section 7).

10.3. **Possibility of hazardous reactions:**
Hazardous polymerization will not occur.

10.4. **Conditions to avoid:**
Direct sunlight, extremely high or low temperatures, and incompatible materials.
Sparks, heat, open flame and other sources of ignition.
Dust accumulation (to minimize explosion hazard).

10.5. **Incompatible materials:**
Strong acids, strong bases, strong oxidizers. Ozone. Chlorine. Permanganates. Ketones. Ammonia.

10.6. **Hazardous decomposition products:**
Thermal decomposition may produce: Carbon oxides (CO, CO_2).

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. **Information on hazard classes as defined in Regulation (EC) No 1272/2008:**
Acute toxicity: Based on available data, the classification criteria are not met.
Skin corrosion/irritation: Based on available data, the classification criteria are not met.
Serious eye damage/irritation: Based on available data, the classification criteria are not met.
Respiratory or skin sensitisation: 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: Based on available data, the classification criteria are not met.

11.1.1. **Summaries of the information derived from the test conducted:**
No data available.

11.1.2. **Relevant toxicological properties:**
Carbon (CAS: 7440-44-0):
Acute toxicity:
LD_{50} (oral, rat): >10,000 mg/kg

11.1.3. **Information on likely routes of exposure:**
Ingestion, inhalation, skin contact, eye contact.

11.1.4. **Symptoms related to the physical, chemical and toxicological characteristics:**
Symptoms/effects: Not expected to present a significant hazard under anticipated conditions of normal use.
Symptoms/effects after inhalation: Dust may be harmful or cause irritation. Wet activated carbon removes oxygen from air causing a severe hazard to workers inside carbon vessels and enclosed or confined spaces. Before entering such an area, sampling and work procedures for low oxygen levels should be taken to ensure ample oxygen availability, observing all regulations.
Symptoms/effects after skin contact: Prolonged exposure may cause skin irritation. Skin contact with large amounts of dust may cause mechanical irritation.
Symptoms/effects after eye contact: May cause slight irritation to eyes. May cause mechanical eye irritation.
Symptoms/effects after ingestion: Ingestion may cause adverse effects.
Chronic symptoms : None known.

11.1.5. **Delayed and immediate effects as well as chronic effects from short and long-term exposure:**
No data available.

11.1.6. **Interactive effects:**
No data available.

11.1.7. **Absence of specific data:**
No information.

11.2. **Information on other hazards:**
Endocrine disrupting properties:
Endocrine disrupting property: Not an endocrine disruptor.
Other information:
No data available.

SECTION 12: ECOLOGICAL INFORMATION

12.1. **Toxicity:**
The substance is not classified as hazardous for the environment.
12.2. **Persistence and degradability:**
No data available.
12.3. **Bioaccumulative potential:**
No data available.
12.4. **Mobility in soil:**
No data available.
12.5. **Results of PBT and vPvB assessment:**
Not relevant – no registration required.
12.6. **Endocrine disrupting properties:**
Endocrine disrupting property: Not an endocrine disruptor.
12.7. **Other adverse effects:**
Avoid release to the environment.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. **Waste treatment methods:**
Disposal according to the local regulations.
13.1.1. **Information regarding the disposal of the product:**
Dispose of in accordance with applicable regulations.
Avoid release to the environment.
List of Waste Code:
No waste disposal key according to the List of Waste Code (LoW code) can be determined for this product, as only the purpose of application defined by the user enables an allocation. The LoW code number has to be determined after a discussion with a waste disposal specialist.
13.1.2. **Information regarding the disposal of the packaging:**
Dispose of in accordance with applicable regulations.
Container may remain hazardous when empty. Continue to observe all precautions.
13.1.3. **Physical/chemical properties that may affect waste treatment options shall be specified:**
No data available.
13.1.4. **Sewage disposal:**
No data available.
13.1.5. **Special precautions for any recommended waste treatment:**
No data available.

SECTION 14: TRANSPORT INFORMATION

ADR/RID; ADN; IMDG; IATA:
Not subject to the conventions of carriage of dangerous goods.

14.1. **UN number or ID number:**
No UN number.
14.2. **UN proper shipping name:**
No proper shipping name.
14.3. **Transport hazard class(es):**
No transport hazard classes.
14.4. **Packing group:**
No packing group.

14.5. **Environmental hazards:**
Environmentally hazardous: No.
Marine pollutant: No.

14.6. **Special precautions for user:**
No relevant information available.

14.7. **Maritime transport in bulk according to IMO instruments:**
Not applicable.

SECTION 15: REGULATORY INFORMATION

15.1. **Safety, health and environmental regulations/legislation specific for the substance or mixture:**

REGULATION (EC) No 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive (EC) No 1999/45 and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive (EEC) No 76/769 and Commission Directives (EEC) No 91/155, (EEC) No 93/67, (EC) No 93/105 and (EC) No 2000/21

REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives (EEC) No 67/548 and (EC) No 1999/45, and amending Regulation (EC) No 1907/2006

COMMISSION REGULATION (EU) 2020/878 of 18 June 2020 amending Annex II to Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)

No REACH Annex XVII restrictions.
Not on the REACH Candidate List.
Not on the REACH Annex XIV List.

15.2. **Chemical safety assessment:** Has not been carried out.

SECTION 16: OTHER INFORMATION

Information regarding the revision of the safety data sheet:
The safety data sheet has been revised according to Regulation (EU) 2020/878.
The hazard classification of the substance did not change compared to the previous version.

This safety data sheet supersedes all previous versions according to Annex II of Regulation (EC) No 1907/2006.

Literature references / data sources:
Previous version of the safety data sheet (30. 09. 2022, version 2)

Relevant hazard statements (code and full text) of Sections 2 and 3: No relevant statements.

Training advice: No data available.

Full text of the abbreviations in the safety data sheet:
ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways.
ADR: Agreement concerning the International Carriage of Dangerous Goods by Road.
ATE: Acute Toxicity Estimate.
AOX: Adsorbable organic halides.
BCF: Bioconcentration factor.
BOD: Biological Oxygen Demand.
CAS number: Chemical Abstract Service number.
CLP: Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures.
CMR effects: Carcinogenic, mutagenic, reprotoxic effects.
COD: Chemical Oxygen Demand.
CSA: Chemical Safety Assessment.
CSR: Chemical Safety Report.
DNEL: Derived-No-Effect-Level.
ECHA: European Chemical Agency.
EC: European Community.
EC number: EINECS and ELINCS numbers (see also EINECS and ELINCS).
EEC: European Economic Community.
EEA: European Economic Area (EU + Iceland, Liechtenstein and Norway).
EINECS: European Inventory of Existing Commercial Chemical Substances.
ELINCS: European List of Notified Chemical Substances.
EN: European Norm.
EU: European Union.
EuPCS: European Product Categorisation System.
EWC: European Waste Catalogue (replaced by LoW – see below).
GHS: Globally Harmonized System of Classification and Labelling of Chemicals.
IATA: International Air Transport Association.
ICAO-TI: Technical Instructions for the Safe Transport of Dangerous Goods by Air.
IMDG: International Maritime Dangerous Goods.
IMO: International Maritime Organization.
IMSBC: International Maritime Solid Bulk Cargoes.
IUCLID: International Uniform Chemical Information Database.
IUPAC: International Union of Pure and Applied Chemistry.
Kow: n-Octanol - Water Partition Coefficient.
LC50: Lethal concentration resulting in 50 % mortality.
LD50: Lethal dose resulting in 50 % mortality (median lethal dose).
LoW: List of Waste.
LOEC: Lowest Observed Effect Concentration.
LOEL: Lowest Observed Effect Level.
NOEC: No Observed Effect Concentration.
NOEL: No Observed Effect Level.
NOAEC: No Observed Adverse Effect Concentration.
NOAEL: No Observed Adverse Effect Level.
OECD: Organization for Economic Cooperation and Development.
OSHA: Occupational Safety and Health Administration.
PBT: Persistent, Bioaccumulative and Toxic.
PNEC: Predicted No Effect Concentration.
QSAR: Quantitative Structure Activity Relationship.
REACH: Regulation 1907/2006/EC concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals.
RID: Regulations Concerning the International Transport of Dangerous Goods by Rail.
SCBA: Self Contained Breathing Apparatus.
SDS: Safety Data Sheet.
STOT: Specific Target Organ Toxicity.
SVHC: Substances of Very High Concern.
UN: United Nations.
UVCB: Chemical Substances of Unknown or Variable Composition, Complex Reaction Products and Biological Materials.
VOC: Volatile Organic Compound.
vPvB: very Persistent and very Bioaccumulative.

This safety data sheet had been prepared on the basis of information provided by the manufacturer/supplier and conform to the relevant regulations.
The information, data and recommendations contained herein are provided in good faith, obtained from reliable sources and believed to be true and accurate as of the date issued; however, no representation is made as to the comprehensiveness of the information.
The SDS shall be used only as a guide for handling the product; in the course of handling and using the product other considerations may arise or be required.
Users are cautioned to determine the appropriateness and applicability of the above information to their particular circumstances and purposes and assume all risk associated with the use of this product.
It is the responsibility of the user to fully comply with local, national and international regulations concerning the use of this product.

Safety data sheet was prepared by:
MSDS-Europe
International branch of ToxInfo Kft.

Professional help regarding the explanation of the safety data sheet:
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www.msds-europe.com