

Material Safety Data Sheet



AmgFlex (IAQ)

1. Product and company identification

Product names	: AmgFlex (IAQ)
Material uses	: Flex duct with advanced Indoor Air Quality (IAQ) enhancements.
Supplier/Manufacturer	: QuietFlex Manufacturing Company L.P. 4518 Brittmoore Rd. Houston, Texas 77041 Tel : (713) 849-2163 Toll Free : 1-877-694-3669 Fax : (713) 849-0753
Validation date	: 08/30/2008
Responsible name	: Atrion Regulatory Services, Inc.
In case of emergency	: CANUTEC (613) 996-6666 CHEMTREC, U.S. : (800) 424-9300 International: (703) 527-3887

2. Hazards identification

Physical state	: Solid.
OSHA/HCS status	: This product is an Article under the United States Hazard Communication System. Therefore it is EXEMPTED from the regulatory requirements under HCS.
Emergency overview	: Ducts are manufactured Articles and as such are not considered to be controlled products under O.S.H.A. when used in accordance with industry safety standards.
Potential acute health effects	
Inhalation	: No known significant effects or critical hazards.
Ingestion	: No known significant effects or critical hazards.
Skin	: No known significant effects or critical hazards.
Eyes	: No known significant effects or critical hazards.
Potential chronic health effects	
Chronic effects	: No known significant effects or critical hazards.
Carcinogenicity	: No known significant effects or critical hazards.
Mutagenicity	: No known significant effects or critical hazards.
Teratogenicity	: No known significant effects or critical hazards.
Developmental effects	: No known significant effects or critical hazards.
Fertility effects	: No known significant effects or critical hazards.
Over-exposure signs/symptoms	
Inhalation	: No specific data.
Ingestion	: No specific data.
Skin	: No specific data.
Eyes	: No specific data.
Medical conditions aggravated by over-exposure	: Pre-existing disorders involving any target organs mentioned in this MSDS as being at risk may be aggravated by over-exposure to this product.

See toxicological information (section 11)

3 . Composition/information on ingredients

United States

Name	CAS number	%
Fibre glass	65997-17-3	60 - 100
Carbon Black	1333-86-4	5 - 10
Antimony trioxide	1309-64-4	0.1 - 1

This product is an Article under the United States Hazard Communication System. Therefore it is EXEMPTED from the regulatory requirements under HCS. To the best of our knowledge, the toxicological properties of this product have not been thoroughly investigated.

Carbon black is a component of some black products only and is encapsulated within binder or coatings. Note: Due to the product form, exposures to hazardous dusts or fumes are not expected to occur. Exposure limits are given for reference only.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

4 . First aid measures

- Eye contact** : Check for and remove any contact lenses. In case of contact with eyes, rinse immediately with plenty of water. Get medical attention if symptoms occur.
- Skin contact** : Wash with soap and water. Get medical attention if symptoms occur.
- Inhalation** : These products are a solid and are not likely to be hazardous by inhalation. However, if exposed to fumes from overheating or combustion, remove to fresh air.
- Ingestion** : Do not induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention if symptoms appear.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.
- Notes to physician** : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

5 . Fire-fighting measures

- Flammability of the product** : No specific fire or explosion hazard.
- Extinguishing media**
 - Suitable** : Use dry chemical, CO₂, water spray (fog) or foam.
 - Not suitable** : None known.
- Special exposure hazards** : These products can be combusted by remaining in contact with flame. If flame source is stationary these products will shrink away and self-extinguish. If these products remain in contact with a flame they can continue to burn slowly, dropping flaming liquid which can spread the fire.
- Hazardous thermal decomposition products** : Decomposition products may include the following materials: carbon dioxide, carbon monoxide, nitrogen oxides, organic acids, aldehydes and alcohols. During processing, film may pick up a strong static charge. Avoid discharge into dust or solvent laden air as a flash fire or explosion may result.
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

6 . Accidental release measures

- Personal precautions** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see section 8).
- Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
- Methods for cleaning up**
- Small spill** : Move containers from spill area. Vacuum or sweep up material and place in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor.
- Large spill** : Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Vacuum or sweep up material and place in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor. Note: see section 1 for emergency contact information and section 13 for waste disposal.

7 . Handling and storage

- Handling** : Put on appropriate personal protective equipment (see section 8). Avoid skin contact with sharp edges of film. Rolls of film may telescope. Use caution when handling. Plastic packaging materials can pick up a static charge. Polyester film rolls packaged with shrink-wrap or other plastic overwrap should be opened or unwrapped only in non-process areas where ignition sources such as solvents are not in use or in storage
- Storage** : Store away from heat and sources of ignition. Do not store in direct sunlight. Recommended storage temperatures are -6°C (20°F) to 37.8°C (100°F).

8 . Exposure controls/personal protection

	United States
Product name	Exposure limits
Fibre glass	<p>ACGIH TLV (United States). TWA: 10 mg/m³ Form: Total dust TWA: 5 mg/m³ Form: Respirable</p> <p>OSHA PEL (United States). TWA: 15 mg/m³ Form: Total dust TWA: 5 mg/m³ Form: Respirable</p> <p>NIOSH REL (United States). TWA: 5 mg/m³ Form: Total dust</p>
Carbon Black	<p>ACGIH TLV (United States, 1/2008). TWA: 3.5 mg/m³ 8 hour(s).</p> <p>NIOSH REL (United States, 12/2001). TWA: 3.5 mg/m³ 10 hour(s). TWA: 0.1 mg of PAHs/cm³ 10 hour(s).</p> <p>OSHA PEL (United States, 11/2006). TWA: 3.5 mg/m³ 8 hour(s).</p>
Antimony trioxide	<p>ACGIH TLV (United States, 1/2008). TWA: 0.5 mg/m³, (as Sb) 8 hour(s).</p> <p>OSHA PEL (United States, 11/2006). TWA: 0.5 mg/m³, (as Sb) 8 hour(s).</p>

Consult local authorities for acceptable exposure limits.

- Recommended monitoring procedures** : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment.

8 . Exposure controls/personal protection

Engineering measures : If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Personal protection

Eyes : Safety glasses.

Skin : Lab coat.

Respiratory : A respirator is not needed under normal and intended conditions of use.

Hands : Natural rubber (latex).

Personal protective equipment (Pictograms) :



HMIS Code/Personal protective equipment : B

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

9 . Physical and chemical properties

Physical state : Solid.

10 . Stability and reactivity

Stability : The product is stable.

Hazardous polymerization : Under normal conditions of storage and use, hazardous polymerization will not occur.

Conditions to avoid : Avoid exposure - obtain special instructions before use.

Materials to avoid : Reactive or incompatible with the following materials: oxidizing materials.
Non-reactive or compatible with the following materials: reducing materials, combustible materials, organic materials, metals, acids, alkalis and moisture.

Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

11 . Toxicological information

Acute toxicity

Product/ingredient name	Species	Dose	Result	Exposure
Carbon Black	Rabbit	>3 g/kg	LD50 Dermal	-
	Rat	>15400 mg/kg	LD50 Oral	-

Inhalation : No known significant effects or critical hazards.

Ingestion : No known significant effects or critical hazards.

Skin : No known significant effects or critical hazards.

Eyes : No known significant effects or critical hazards.

11 . Toxicological information

Carcinogenicity

Classification

Product/ingredient name	ACGIH	IARC	EPA	NIOSH	NTP	OSHA
Carbon Black	A4	2B	-	+	-	-
Antimony trioxide	A2	2B	-	-	-	-

12 . Ecological information

Environmental effects : No known significant effects or critical hazards.

Aquatic ecotoxicity

Product/ingredient name	Species	Exposure	Result
Antimony trioxide	Daphnia	48 hours	Acute EC50 423450 to 496000 ug/L
	Fish	96 hours	Acute LC50 >530 mg/L

Other adverse effects : No known significant effects or critical hazards.

13 . Disposal considerations

Waste disposal : The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe way. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees.

14 . Transport information

Regulatory information

DOT/IMDG/IATA : Not regulated.

15 . Regulatory information

United States

HCS Classification : This product is an Article under the United States Hazard Communication System. Therefore it is EXEMPTED from the regulatory requirements under HCS.

U.S. Federal regulations : TSCA 8(a) PAIR: N,N'-ethylenebis(3,4,5,6-tetrabromophthalimide)
United States inventory (TSCA 8b): All components are listed or exempted.
 TSCA 8(d) H and S data reporting: N,N'-ethylenebis(3,4,5,6-tetrabromophthalimide): 1990

SARA 302/304/311/312 extremely hazardous substances: No products were found.

SARA 302/304 emergency planning and notification: No products were found.

SARA 302/304/311/312 hazardous chemicals: Carbon Black

SARA 311/312 MSDS distribution - chemical inventory - hazard identification

Carbon Black: Immediate (acute) health hazard, Delayed (chronic) health hazard

Clean Water Act (CWA) 307: Antimony trioxide; Phenol; Zinc stearate

Clean Water Act (CWA) 311: Antimony trioxide; Phenol

Clean Air Act (CAA) 112 accidental release prevention No products were found.

Clean Air Act (CAA) 112 regulated flammable substances No products were found.

Clean Air Act (CAA) 112 regulated toxic substances No products were found.

15 . Regulatory information

SARA 313

	Product name	CAS number	Concentration
Form R - Reporting requirements	: Antimony trioxide	1309-64-4	0.1 - 1
Supplier notification	: Antimony trioxide	1309-64-4	0.1 - 1

SARA 313 notifications must not be detached from the MSDS and any copying and redistribution of the MSDS shall include copying and redistribution of the notice attached to copies of the MSDS subsequently redistributed.

- State regulations** :
- Connecticut Carcinogen Reporting:** None of the components are listed.
 - Connecticut Hazardous Material Survey:** None of the components are listed.
 - Florida substances:** None of the components are listed.
 - Illinois Chemical Safety Act** None of the components are listed.
 - Illinois Toxic Substances Disclosure to Employee Act** None of the components are listed.
 - Louisiana Reporting:** None of the components are listed.
 - Louisiana Spill:** None of the components are listed.
 - Massachusetts Spill:** None of the components are listed.
 - Massachusetts Substances:** The following components are listed: Carbon Black
 - Michigan Critical Material:** None of the components are listed.
 - Minnesota Hazardous Substances:** None of the components are listed.
 - New Jersey Hazardous Substances:** The following components are listed: Carbon Black;Antimony trioxide
 - New Jersey Spill:** None of the components are listed.
 - New Jersey Toxic Catastrophe Prevention Act:** None of the components are listed.
 - New York Acutely Hazardous Substances:** The following components are listed: Antimony trioxide
 - New York Toxic Chemical Release Reporting:** None of the components are listed.
 - Pennsylvania RTK Hazardous Substances:** The following components are listed: Carbon Black;Antimony trioxide
 - Rhode Island Hazardous Substances:** None of the components are listed.

California Prop. 65

WARNING: This product contains a chemical known to the State of California to cause cancer.

Ingredient name	Cancer	Reproductive	No significant risk level	Maximum acceptable dosage level
Carbon Black	Yes.	No.	No.	No.
Antimony trioxide	Yes.	No.	No.	No.

International regulations

- International lists** :
- This product, (and its ingredients) is (are) listed on national inventories, or is (are) exempted from being listed, in Australia (AICS), in Europe (EINECS/ELINCS), in Korea (TCCL), in Japan (METI), in the Philippines (RA6969).

16 . Other information

- Label requirements** :
- Ducts are manufactured Articles and as such are not considered to be controlled products under O.S.H.A. when used in accordance with industry safety standards.

Hazardous Material Information System (U.S.A.)

Health	0
Fire hazard	0
Physical Hazard	0
Personal protection	B

HAZARD RATINGS

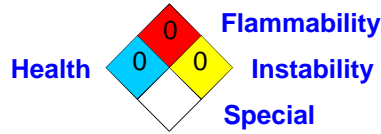
- 4- Extreme
- 3- Serious
- 2- Moderate
- 1- Slight
- 0- Minimal

See section 8 for more detailed information on personal protection.

The customer is responsible for determining the PPE code for this material.

16 . Other information

National Fire Protection Association (U.S.A.) :



References : ANSI Z400.5, MSDS Standard, 2004. - Manufacturer's Material Safety Data Sheet. - 29CFR Part1910.1200 OSHA MSDS Requirements. - 49CFR Table List of Hazardous Materials, UN#, Proper Shipping Names, PG.

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Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.