

SAFETY DATA SHEET

QAS Acoustical Flex



Section 1. Identification

GHS product identifier : QAS Acoustical Flex
Product code : Not available.
Other means of identification : Flexible Duct
Product code : Not available.
Product type : Solid.

Identified uses

Flexible Duct for the residential and manufactured home marketplace for the HVAC industry.

Supplier's details : 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
Web site: <http://www.quietflex.com>

Emergency telephone number (with hours of operation) : CANUTEC: +1-613-996-6666 or *666 (cellular)
CHEMTREC, U.S. : 1-800-424-9300 International: +1-703-527-3887
24/7

Section 2. Hazards identification

OSHA/HCS status : While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.

Classification of the substance or mixture : Not classified.

GHS label elements

Signal word : No signal word.
Hazard statements : No known significant effects or critical hazards.
Precautionary statements
Prevention : Not applicable.
Response : Not applicable.
Storage : Not applicable.
Disposal : Not applicable.

Hazards not otherwise classified (HNOC) : None known.



Section 3. Composition/information on ingredients

Substance/mixture : Mixture
Other means of identification : Flexible Duct

CAS number/other identifiers

Ingredient name	CAS number	%
Antimony trioxide	1309-64-4	0.1 - 1

Antimony trioxide is an ingredient found in the adhesive used to CONSTRUCT the outer jacket of our Flexible Duct products. Antimony trioxide and other glue chemicals are APPLIED between TWO IMPERVIOUS PET films during the curing process. The final product is the outer jacket, a solid, which will not cause exposure to Antimony Trioxide. The adhesive ENCAPSULATED BETWEEN THE FILMS BECOMES A CURED SOLID AND PROVIDES NO PATH FOR OCCUPATIONAL EXPOSURE TO ANTIMONY TRIOXIDE.

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

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.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

- Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs. Do not rub or scratch eyes. Dust particles may cause the eye to be scratched.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur. 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.
- Skin contact** : Flush contaminated skin with plenty of water. Get medical attention if symptoms occur.
- Ingestion** : Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.

Most important symptoms/effects, acute and delayed

Potential acute health effects

- Eye contact** : Dusts and fibers form of this product may cause temporary mechanical irritation to the eyes.
- Inhalation** : Dusts and fibers form of this product may cause temporary mechanical irritation to the nose, throat and respiratory track.
- Skin contact** : Dusts and fibers form of this product may cause temporary mechanical irritation and redness to the skin.
- Ingestion** : Ingestion of this product is unlikely; however, ingestion may cause gastrointestinal irritation.

Over-exposure signs/symptoms

- Eye contact** : No known significant effects or critical hazards.
- Inhalation** : No known significant effects or critical hazards.
- Skin contact** : No known significant effects or critical hazards.
- Ingestion** : No known significant effects or critical hazards.

Indication of immediate medical attention and special treatment needed, if necessary

Section 4. First aid measures

- 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.
- Specific treatments** : No specific treatment.
- Protection of first-aiders** : No special protection is required.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media : Use dry chemical, CO₂, water spray (fog) or foam.

Unsuitable extinguishing media : None known.

Specific hazards arising from the chemical : These products may 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 may continue to burn slowly, dropping flaming liquid which may spread the fire.

Hazardous thermal decomposition products : Decomposition products may include the following materials: carbon dioxide, carbon monoxide, water.

Special protective actions for fire-fighters : No special measures are required.

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.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : Put on appropriate personal protective equipment.

For emergency responders : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Environmental precautions : Pick up large pieces and dispose as listed in Section 13 of this SDS.

Methods and materials for containment and cleaning up

Spill : Pick up large pieces. Vacuum dusts and loose fibers. If sweeping is necessary, use dust suppressant such as water. Do not dry sweep dust. Never use compressed air for clean-up. Dispose of via a licensed waste disposal contractor. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8).
- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. See also Section 8 for additional information on hygiene measures.
- Storage** : Storage should be in accordance with packaging directions, if any. Material should be stored in a dry place and kept in its original packaging until use.

- Conditions for safe storage, including any incompatibilities** : Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use.

Section 8. Exposure controls/personal protection

Control parameters

- Occupational exposure limits** : The Occupational Safety and Health Administration (OSHA) have not adopted specific exposure standards for fiber glass. Fiber glass is treated as a nuisance dust and is regulated by OSHA as a particulate not otherwise regulated (total dust) shown in CFR 1910.1000 Table Z-3.

Ingredient name	Exposure limits
Antimony trioxide	ACGIH TLV (United States, 3/2015). TWA: 0.5 mg/m ³ , (as Sb) 8 hours. OSHA PEL (United States, 2/2013). TWA: 0.5 mg/m ³ , (as Sb) 8 hours. NIOSH REL (United States, 10/2013). TWA: 0.5 mg/m ³ , (as Sb) 10 hours. OSHA PEL 1989 (United States, 3/1989). TWA: 0.5 mg/m ³ , (as Sb) 8 hours.

Antimony trioxide is an ingredient found in the adhesive used to CONSTRUCT the outer jacket of our Flexible Duct products. Antimony trioxide and other glue chemicals are APPLIED between TWO IMPERVIOUS PET films during the curing process. The final product is the outer jacket, a solid, which will not cause exposure to Antimony Trioxide. The adhesive ENCAPSULATED BETWEEN THE FILMS BECOMES A CURED SOLID AND PROVIDES NO PATH FOR OCCUPATIONAL EXPOSURE TO ANTIMONY TRIOXIDE.

- Appropriate engineering controls** : Good general ventilation should be sufficient to control worker exposure to airborne dust.
- Environmental exposure controls** : Pick up solid pieces and dispose of as listed in Section 13.

Individual protection measures

- Hygiene measures** : Wash hands, forearms and face thoroughly after handling products, before eating, smoking and using the lavatory and at the end of the working period. Ensure that eyewash stations and safety showers are close to the workstation location.
- Eye/face protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to possible insulation dusts.
- Skin protection**
 - Hand protection** : Cotton or leather gloves should be worn to protect against mechanical abrasion. Use caution when handling the inner Core as the taped ends may come loose during handling exposing the wire used to construct the inner Core.

Section 8. Exposure controls/personal protection

- Body protection** : Wear a cap, a loose-fitting long sleeved shirt and long pants to protect skin from mechanical irritation. Exposed skin areas should be washed with soap and water after handling or working with fiberglass.
- Other skin protection** : Clothing should be washed separately from other cloths, and the washer should be rinsed thoroughly (run empty for a wash cycle). This will help reduce the chances of fiber glass being transferred to other clothing.
- Respiratory protection** : A respirator is not needed under normal and intended conditions of use.

Section 9. Physical and chemical properties

Appearance

- Physical state** : Solid. [Flexible duct.]
- Color** : Silver.
- Odor** : Not available.
- Odor threshold** : Not available.
- pH** : Not applicable.
- Melting point** : Not available.
- Boiling point** : Not applicable.
- Flash point** : Not applicable.
- Evaporation rate** : Not applicable.
- Flammability (solid, gas)** : Non-flammable.
- Lower and upper explosive (flammable) limits** : Not available.
- Vapor pressure** : Not applicable.
- Vapor density** : Not applicable.
- Relative density** : Not applicable.
- Solubility** : Negligible in water.
- Partition coefficient: n-octanol/water** : Not available.
- Auto-ignition temperature** : Not available.
- Decomposition temperature** : Not available.
- Viscosity** : Not applicable.
- Volatility** : Not available.
- VOC (w/w)** : 0 % (w/w)

Section 10. Stability and reactivity

- Reactivity** : No specific test data related to reactivity available for this product or its ingredients.
- Chemical stability** : The product is stable under normal conditions.
- Possibility of hazardous reactions** : Under normal conditions of storage and use, hazardous reactions will not occur.
- Conditions to avoid** : Keep away from heat, direct sunlight and flames.
- Incompatible materials** : None.

Section 10. Stability and reactivity

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

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

There is no data available.

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Antimony trioxide	Eyes - Mild irritant	Rabbit	-	100 mg	-

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Sensitization

There is no data available.

Carcinogenicity

Classification

Product/ingredient name	OSHA	IARC	NTP	ACGIH	EPA	NIOSH
Glass, oxide, chemicals	-	3	-	A4	-	-
Antimony trioxide	-	2B	-	A2	-	-

Specific target organ toxicity (single exposure)

There is no data available.

Specific target organ toxicity (repeated exposure)

There is no data available.

Aspiration hazard

There is no data available.

Information on the likely routes of exposure : Dermal contact. Eye contact. Inhalation. Ingestion.

Potential acute health effects

- Eye contact** : Dusts and fibers form of this product may cause temporary mechanical irritation to the eyes.
- Inhalation** : Dusts and fibers form of this product may cause temporary mechanical irritation to the nose, throat and respiratory track.
- Skin contact** : Dusts and fibers form of this product may cause temporary mechanical irritation and redness to the skin.
- Ingestion** : Ingestion of this product is unlikely; however, ingestion may cause gastrointestinal irritation.

Symptoms related to the physical, chemical and toxicological characteristics

- Eye contact** : No known significant effects or critical hazards.
- Inhalation** : No known significant effects or critical hazards.
- Skin contact** : No known significant effects or critical hazards.
- Ingestion** : No known significant effects or critical hazards.

Section 11. Toxicological information

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : No known significant effects or critical hazards.

Potential delayed effects : No known significant effects or critical hazards.

Long term exposure

Potential immediate effects : No known significant effects or critical hazards.

Potential delayed effects : No known significant effects or critical hazards.

Potential chronic health effects

General : 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.

Numerical measures of toxicity

Acute toxicity estimates

There is no data available.

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
Antimony trioxide	Acute EC50 730 µg/L Fresh water	Algae - Pseudokirchneriella subcapitata	72 hours
	Acute EC50 740 µg/L Fresh water	Algae - Pseudokirchneriella subcapitata	96 hours
	Acute EC50 560 mg/L Fresh water	Crustaceans - Cypris subglobosa	48 hours
	Acute EC50 423450 to 496000 µg/L Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 >530 mg/L Fresh water	Fish - Lepomis macrochirus - Young of the year	96 hours
	Chronic NOEC 200 µg/L Fresh water	Algae - Pseudokirchneriella subcapitata	96 hours

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Persistence and degradability

There is no data available.

Bioaccumulative potential

There is no data available.

Mobility in soil

Soil/water partition coefficient (K_{oc}) : There is no data available.

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

Section 13. Disposal considerations

Disposal methods : This product is not expected to be a hazardous waste when it is disposed of according to the U.S. Environmental Protection Agency (EPA). Disposal of this product, solutions and any by-products should comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.

Section 14. Transport information

	DOT	IMDG	IATA
UN number	Not regulated.	Not regulated.	Not regulated.
UN proper shipping name	-	-	-
Transport hazard class(es)	-	-	-
Packing group	-	-	-
Environmental hazards	No.	No.	No.
Additional information	-	-	-

AERG : Not applicable.

Special precautions for user : These products are not classified as dangerous goods according to international transport regulations.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code : Not available.

Section 15. Regulatory information

U.S. Federal regulations : **TSCA 8(a) PAIR**: N,N'-ethylenebis(3,4,5,6-tetrabromophthalimide)
TSCA 8(a) CDR Exempt/Partial exemption: Not determined
United States inventory (TSCA 8b): All components are listed or exempted.
Clean Water Act (CWA) 307: Antimony trioxide; Zinc distearate
Clean Water Act (CWA) 311: Antimony trioxide

Antimony trioxide and N,N'-ethylenebis(3,4,5,6-tetrabromophthalimide) are ingredients found in the adhesive used to CONSTRUCT the outer jacket of our Flexible Duct products. Antimony trioxide and other glue chemicals are APPLIED between TWO IMPERVIOUS PET films during the curing process. The final product is the outer jacket, a solid, which will not cause occupational exposure or environmental release of these chemicals into the environment under normal conditions of use.

Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs) : Listed

Clean Air Act Section 602 Class I Substances : Not listed

Section 15. Regulatory information

Clean Air Act Section 602 Class II Substances : Not listed

DEA List I Chemicals (Precursor Chemicals) : Not listed

DEA List I Chemicals (Precursor Chemicals) : Not listed

SARA 302/304

Composition/information on ingredients

No products were found.

SARA 304 RQ : Not applicable.

SARA 311/312

Classification : Not applicable.

Composition/information on ingredients

Name	%	Fire hazard	Sudden release of pressure	Reactive	Immediate (acute) health hazard	Delayed (chronic) health hazard
Antimony trioxide	0.1 - 1	No.	No.	No.	Yes.	Yes.

SARA 313

	Product name	CAS number	%
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 SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

State regulations

Massachusetts : The following components are listed: Glass, oxide, chemicals

New York : The following components are listed: Antimony trioxide

New Jersey : The following components are listed: Antimony trioxide

Pennsylvania : The following components are listed: Antimony trioxide

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
Antimony trioxide	Yes.	No.	No.	No.
Crystalline silica, quartz	Yes.	No.	No.	No.

Section 16. Other information

History

Date of issue mm/dd/yyyy : 07/15/2015

Version : 1

Prepared by : KMK Regulatory Services Inc.

Section 16. Other information

Key to abbreviations

- : ATE = Acute Toxicity Estimate
- BCF = Bioconcentration Factor
- GHS = Globally Harmonized System of Classification and Labelling of Chemicals
- IATA = International Air Transport Association
- IBC = Intermediate Bulk Container
- IMDG = International Maritime Dangerous Goods
- LogPow = logarithm of the octanol/water partition coefficient
- MARPOL 73/78 = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
- UN = United Nations

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.