

VFI-5217 ISO A side

Safety Data Sheet

according to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012.

Date of issue: 01/06/2021

Revision date: N/A

Version: 1.0

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product name : VFI-5217 ISO A side
Product code : Not available.

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture : Flexible Spray Foam.

1.3. Details of the supplier of the safety data sheet

Volatile Free, Inc.
19500 Janacek Ct
Brookfield, WI 53045 - USA
T (800) 307-9218

1.4. Emergency telephone number

Emergency Telephone: (outside the U.S.): : 1-703-527-3887 / (U.S. and Canada) 1-800-424-9300
Association/Organization: CHEMTREC

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GHS-US classification

Skin Irritation 2
Eye Irritation 2A
Respiratory Sensitization 1
Skin Sensitization 1
Specific Target Organ Toxicity After Single Exposure 3
Specific Target Organ Toxicity After Repeated Exposure 2

2.2. Label elements

GHS-US labelling

Hazard pictograms (GHS-US) :



GHS07

GHS08

Signal word (GHS-US) :

Danger

Hazard statements (GHS-US) :

Causes skin irritation. Causes serious eye irritation. May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause an allergic skin reaction. May cause respiratory irritation. May cause damage to organs through prolonged or repeated exposure.

Precautionary statements (GHS-US) :

Wash hands thoroughly after handling. Wear protective gloves/ eye protection/face protection. In case of inadequate ventilation wear respiratory protection. Contaminated work clothing must not be allowed out of the workplace. Use only outdoors or in a well-ventilated area. Do not breathe gas/mist/vapors/spray. Get medical advice/attention if you feel unwell. If on skin: Wash with plenty of water. Take off contaminated clothing and wash it before reuse. If skin irritation or rash occurs: Get medical advice/attention. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. If inhaled: Remove person to fresh air and keep comfortable for breathing. If experiencing respiratory symptoms: Call a poison center/doctor. Store in a well-ventilated place. Keep container tightly closed. Store locked up. Dispose of contents and container in accordance with all local, regional, national and international regulations.

2.3. Other hazards

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

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3.2. Mixture

Name	Product identifier	%	GHS-US classification
Isocyanic acid, polymethylenepolyphenylene ester	(CAS No) 9016-87-9	13 - 30	Skin Irrit. 2 Eye Irrit. 2A Resp. Sens. 1 Skin Sens. 1 STOT RE 2 STOT SE 3
4,4'-Methylenediphenyl diisocyanate	(CAS No) 101-68-8	30 - 60	Skin Irrit. 2 Eye Irrit. 2A Resp. Sens. 1 Skin Sens. 1 STOT SE 3 STOT RE 2
Benzene, 1-isocyanato-2-[(4-isocyanatophenyl)methyl]-	(CAS No) 5873-54-1	5 - 10	Skin Irrit. 2 Eye Irrit. 2A Resp. Sens. 1 Skin Sens. 1 STOT SE 3 STOT RE 2

* The exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200.

SECTION 4: First aid measures

4.1. Description of first aid measures

- First-aid measures after inhalation : If inhaled and if breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical advice/attention if you feel unwell.
- First-aid measures after skin contact : In case of contact, immediately flush skin with plenty of water. Remove contaminated clothing and shoes. Wash clothing before reuse. Call a physician if irritation develops and persists.
- First-aid measures after eye contact : In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. If easy to do, remove contact lenses, if worn. If irritation persists, get medical attention.
- First-aid measures after ingestion : If swallowed, do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical advice/attention if you feel unwell.

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

- Symptoms/injuries after inhalation : May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause respiratory tract irritation.
- Symptoms/injuries after skin contact : Causes skin irritation. Symptoms may include redness, edema, drying, defatting and cracking of the skin. May cause sensitization by skin contact.
- Symptoms/injuries after eye contact : Causes serious eye irritation. Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva.
- Symptoms/injuries after ingestion : May be harmful if swallowed. May cause stomach distress, nausea or vomiting.

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

Symptoms may not appear immediately. In case of accident or if you feel unwell, seek medical advice immediately (show the label or SDS where possible).

SECTION 5: Firefighting measures

5.1. Extinguishing media

- Suitable extinguishing media : Treat for surrounding material.
- Unsuitable extinguishing media : None known.

5.2. Special hazards arising from the substance or mixture

- Fire hazard : Products of combustion may include, and are not limited to: oxides of carbon.

5.3. Advice for firefighters

- Protection during firefighting : Keep upwind of fire. Wear full fire fighting turn-out gear (full Bunker gear) and respiratory protection (SCBA).

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

- General measures : Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel.

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6.2. Methods and material for containment and cleaning up

- For containment : Contain and/or absorb spill with inert material (e.g. sand, vermiculite), then place in a suitable container. Do not flush to sewer or allow to enter waterways. Use appropriate Personal Protective Equipment (PPE).
- Methods for cleaning up : Scoop up material and place in a disposal container. Provide ventilation.

6.3. Reference to other sections

See section 8 for further information on protective clothing and equipment and section 13 for advice on waste disposal.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Precautions for safe handling : Avoid contact with skin and eyes. Do not breathe vapour or mist. Do not swallow. Handle and open container with care. When using do not eat, drink or smoke.
- Hygiene measures : Wash hands before eating, drinking, or smoking. Launder contaminated clothing before reuse.

7.2. Conditions for safe storage, including any incompatibilities

- Storage conditions : Keep out of the reach of children. Keep container tightly closed and in a well-ventilated place.

7.3. Specific end use(s)

Not available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Isocyanic acid, polymethylenepolyphenylene ester (9016-87-9)		
USA ACGIH	ACGIH TWA (mg/m ³)	Not applicable.
USA OSHA	OSHA PEL (TWA) (mg/m ³)	Not applicable.
4,4'-Methylenediphenyl diisocyanate (101-68-8)		
USA ACGIH	ACGIH TWA (ppm)	0.005 ppm
USA OSHA	OSHA PEL (Ceiling) (mg/m ³)	0.2 mg/m ³
USA OSHA	OSHA PEL (Ceiling) (ppm)	0.02 ppm
Benzene, 1-isocyanato-2-[(4-isocyanatophenyl)methyl]- (5873-54-1)		
USA ACGIH	ACGIH TWA	Not available.
USA OSHA	OSHA PEL	Not available.

8.2. Exposure controls

- Appropriate engineering controls : Use ventilation adequate to keep exposures (airborne levels of dust, fume, vapor, etc.) below recommended exposure limits.
- Hand protection : Wear chemically resistant protective gloves.
- Eye protection : Wear eye protection.
- Skin and body protection : Wear suitable protective clothing.
- Respiratory protection : In case of insufficient ventilation, wear suitable respiratory equipment. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.
- Environmental exposure controls : Maintain levels below Community environmental protection thresholds.
- Other information : Do not eat, smoke or drink where material is handled, processed or stored. Wash hands carefully before eating or smoking. Handle according to established industrial hygiene and safety practices.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

- Physical state : Liquid.
- Appearance : No data available.
- Colour : Dark brown.
- Odour : Faint aromatic.
- Odour threshold : No data available.
- pH : No data available.

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Relative evaporation rate (butylacetate=1)	: No data available.
Melting point	: No data available.
Freezing point	: No data available.
Boiling point	: No data available.
Flash point	: >110 °C (>230 °F)
Auto-ignition temperature	: No data available.
Decomposition temperature	: No data available
Flammability (solid, gas)	: Not flammable.
Vapour pressure	: No data available.
Relative vapour density at 20 °C	: No data available.
Relative density	: 1.19 g/cm ³
Solubility	: No data available.
Log Pow	: No data available.
Log Kow	: No data available.
Viscosity, kinematic	: No data available.
Viscosity, dynamic	: 250 - 400 cPs
Explosive properties	: No data available.
Oxidising properties	: No data available.
Explosive limits	: No data available.

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No dangerous reaction known under conditions of normal use.

10.2. Chemical stability

Stable under normal storage conditions.

10.3. Possibility of hazardous reactions

No dangerous reaction known under conditions of normal use.

10.4. Conditions to avoid

Heat. Incompatible materials.

10.5. Incompatible materials

Oxidizers.

10.6. Hazardous decomposition products

May include, and are not limited to: oxides of carbon.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

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LD50 oral rat	> 2000 mg/kg
LD50 dermal rabbit	> 2000 mg/kg
LC50 inhalation rat	No data available

Isocyanic acid, polymethylenepolyphenylene ester (9016-87-9)	
LD50 oral rat	49 g/kg
LD50 dermal rabbit	>9400 mg/kg
LC50 inhalation rat	490 mg/m ³ /4/h

4,4'-Methylenediphenyl diisocyanate (101-68-8)	
LD50 oral rat	9200 mg/kg
LD50 dermal rabbit	>9400 mg/kg
LC50 inhalation rat	369 mg/m ³ /4/h

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Benzene, 1-isocyanato-2-[(4-isocyanatophenyl)methyl]- (5873-54-1)	
LC50 inhalation rat	387 mg/m ³ /4 h

Skin corrosion/irritation	: Causes skin irritation.
Serious eye damage/irritation	: Causes serious eye irritation.
Respiratory or skin sensitisation	: May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause an allergic skin reaction.
Germ cell mutagenicity	: Based on available data, the classification criteria are not met.
Carcinogenicity	: Based on available data, the classification criteria are not met.

Isocyanic acid, polymethylenepolyphenylene ester (9016-87-9)	
IARC group	3 - Not classifiable

4,4'-Methylenediphenyl diisocyanate (101-68-8)	
IARC group	3 - Not classifiable

Reproductive toxicity	: Based on available data, the classification criteria are not met.
Specific target organ toxicity (single exposure)	: May cause respiratory irritation.
Specific target organ toxicity (repeated exposure)	: May cause damage to organs through prolonged or repeated exposure.
Aspiration hazard	: Based on available data, the classification criteria are not met..
Symptoms/injuries after inhalation	: May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause respiratory tract irritation.
Symptoms/injuries after skin contact	: Causes skin irritation. Symptoms may include redness, edema, drying, defatting and cracking of the skin. May cause sensitisation by skin contact.
Symptoms/injuries after eye contact	: Causes serious eye irritation. Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva.
Symptoms/injuries after ingestion	: May be harmful if swallowed. May cause stomach distress, nausea or vomiting.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general	: May cause long-term adverse effects in the aquatic environment.
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12.2. Persistence and degradability

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Persistence and degradability	No additional information available.

12.3. Bioaccumulative potential

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Bioaccumulative potential	No additional information available.

12.4. Mobility in soil

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Ecology - soil	No additional information available.

12.5. Other adverse effects

Other adverse effects	: No additional information available.
Effect on ozone layer	: No additional information available
Effect on the global warming	: No known ecological damage caused by this product.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal recommendations	: This material must be disposed of in accordance with all local, state, provincial, and federal regulations. The generation of waste should be avoided or minimized wherever possible.
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SECTION 14: Transport information

In accordance with DOT

14.1. UN number

Not applicable

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according to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012.

14.2. UN proper shipping name

Not applicable

14.3. Additional information

Other information : No supplementary information available.

Special transport precautions : Do not handle until all safety precautions have been read and understood.

SECTION 15: Regulatory information

15.1. US Federal regulations

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory.

Isocyanic acid, polymethylenepolyphenylene ester (9016-87-9)

Listed on United States SARA Section 313

SARA Section 313 - Emission Reporting	1.0 %
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4,4'-Methylenediphenyl diisocyanate (101-68-8)

Listed on United States SARA Section 313

SARA Section 313 - Emission Reporting	1.0 %
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15.3. US State regulations

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State or local regulations	This product does not contain a chemical known to the State of California to cause cancer, birth defects or other reproductive harm.
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SECTION 16: Other information

Indication of changes : None.

Date of issue : 01/06/2021

Data sources : SDS prepared pursuant to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012.

Other information : None.

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