

SECTION 1: IDENTIFICATION

1.1. Product Identifier

Product Form: Mixture

Product Name: FM96

1.2. Intended Use of the Product Flexible insulating material

1.3. Name, Address, and Telephone of the Responsible Party

Manufacturer

Flexmag Industries- Arnold Magnetic Technologies

107 Industry Road

Marietta, OH 45750

800-543-4426

www.arnoldmagnetics.com

1.4. Emergency Telephone Number

Emergency Number : Within USA and Canada 1-800-424-9300 or +1 703-527-3887 (collect calls accepted)

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the Substance or Mixture

Classification (GHS-US)

Carc. 2 H351

Repr. 1B H360

Full text of H-phrases: see section 16

2.2. Label Elements

GHS-US Labeling

Hazard Pictograms (GHS-US)

:



GHS08

Signal Word (GHS-US)

: Danger

Hazard Statements (GHS-US)

: H351 - Suspected of causing cancer.

H360 - May damage fertility or the unborn child.

Precautionary Statements (GHS-US)

: P201 - Obtain special instructions before use.

P202 - Do not handle until all safety precautions have been read and understood.

P280 - Wear protective gloves, protective clothing, and eye protection.

P308+P313 - If exposed or concerned: Get medical advice/attention.

P405 - Store locked up.

P501 - Dispose of contents/container in accordance with local, regional, national, and international regulations.

2.3. Other Hazards Under normal conditions of use and handling in the solid form, harmful substances cannot be released. Much of the information provided in this SDS is for situations of use in which hazardous exposures may occur, such as laser cutting or machining.

2.4. Unknown Acute Toxicity (GHS-US) 4.18 percent of the mixture consists of ingredient(s) of unknown acute toxicity

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substance Not applicable

3.2. Mixture

Name	Product Identifier	%	Classification (GHS-US)
Limestone	(CAS No) 1317-65-3	76.4 - 80.4	Not classified
Proprietary chemical	(CAS No) Proprietary	0.56	Skin Irrit. 2, H315 Eye Irrit. 2B, H320 Carc. 2, H351 Repr. 1B, H360 STOT SE 3, H335
Carbonic acid, calcium salt (1:1)	(CAS No) 471-34-1	<= 0.17	Not classified
Talc	(CAS No) 14807-96-6	<= 0.13	Comb. Dust

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Quartz	(CAS No) 14808-60-7	<= 0.08	Carc. 1A, H350 STOT SE 3, H335 STOT RE 1, H372
Tetrachloromethane	(CAS No) 56-23-5	0.02	Acute Tox. 3 (Oral), H301 Acute Tox. 3 (Dermal), H311 Acute Tox. 3 (Inhalation), H331 Carc. 1B, H350 STOT RE 1, H372 Aquatic Acute 3, H402 Aquatic Chronic 3, H412 Ozone 1, H420

The specific chemical identity and/or exact percentage of composition have been withheld as a trade secret [29 CFR 1910.1200].

Full text of H-phrases: see section 16

SECTION 4: FIRST AID MEASURES

4.1. Description of First Aid Measures

First-aid Measures General: Never give anything by mouth to an unconscious person. IF exposed or concerned: Get medical advice/attention.

First-aid Measures After Inhalation: When symptoms occur: go into open air and ventilate suspected area.

First-aid Measures After Skin Contact: Remove contaminated clothing. Drench affected area with water for at least 15 minutes.

First-aid Measures After Eye Contact: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

First-aid Measures After Ingestion: Rinse mouth. Do NOT induce vomiting.

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

Symptoms/Injuries: Under normal conditions of use not expected to present a significant hazard. During processing or physical alteration, flakes or powder cause irritation of the respiratory tract, eyes, skin, and are harmful. Molten material may release toxic, and irritating fumes. There are potential chronic health effects to consider.

Symptoms/Injuries After Inhalation: For particulates and dust: May cause respiratory irritation.

Symptoms/Injuries After Skin Contact: For particulates and dust: May cause skin irritation. May cause an allergic reaction in sensitive individuals.

Symptoms/Injuries After Eye Contact: For particulates and dust: May cause eye irritation.

Symptoms/Injuries After Ingestion: Ingestion is likely to be harmful or have adverse effects.

Chronic Symptoms: For particulates and dust: May damage fertility or the unborn child. Suspected of causing cancer.

4.3. Indication of Any Immediate Medical Attention and Special Treatment Needed

If you feel unwell, seek medical advice (show the label where possible).

SECTION 5: FIRE-FIGHTING MEASURES

5.1. Extinguishing Media

Suitable Extinguishing Media: Use extinguishing media appropriate for surrounding fire.

Unsuitable Extinguishing Media: None known.

5.2. Special Hazards Arising From the Substance or Mixture

Fire Hazard: Product is not flammable. Under fire conditions, hazardous fumes will be present.

Explosion Hazard: Product is not explosive.

Reactivity: Hazardous reactions are not expected to occur under normal conditions.

5.3. Advice for Firefighters

Precautionary Measures Fire: Exercise caution when fighting any chemical fire.

Protection During Firefighting: Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal Precautions, Protective Equipment and Emergency Procedures

General Measures: Do not allow product to spread into the environment.

6.2. Environmental Precautions Prevent entry to sewers and public waters.

6.3. Methods and Material for Containment and Cleaning Up

Methods for Cleaning Up: Clear up spills immediately and dispose of waste safely.

6.4. Reference to Other Sections

See Section 8, Exposure Controls and Personal Protection. See Section 13, Disposal Considerations.

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SECTION 7: HANDLING AND STORAGE

7.1. Precautions for Safe Handling

Precautions for Safe Handling: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood.

Hygiene Measures: Handle in accordance with good industrial hygiene and safety procedures. Wash hands and other exposed areas with mild soap and water before eating, drinking, or smoking and again when leaving work.

7.2. Conditions for Safe Storage, Including Any Incompatibilities

Storage Conditions: Store in a dry, cool and well-ventilated place. Keep container closed when not in use.

Incompatible Products: Fluorine. Magnesium. Acids.

7.3. Specific End Use(s) Flexible insulating material

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control Parameters

For substances listed in section 3 that are not listed here, there are no established exposure limits from the manufacturer, supplier, importer, or the appropriate advisory agency including: ACGIH (TLV), NIOSH (REL), or OSHA (PEL).

Talc (14807-96-6)		
USA ACGIH	ACGIH TWA (mg/m ³)	2 mg/m ³ (particulate matter containing no asbestos and <1% crystalline silica, respirable fraction)
USA ACGIH	ACGIH chemical category	Not Classifiable as a Human Carcinogen containing no asbestos fibers
USA NIOSH	NIOSH REL (TWA) (mg/m ³)	2 mg/m ³ (containing no Asbestos and <1% Quartz-respirable dust)
USA IDLH	US IDLH (mg/m ³)	1000 mg/m ³ (containing no asbestos and <1% quartz)
Carbonic acid, calcium salt (1:1) (471-34-1)		
USA NIOSH	NIOSH REL (TWA) (mg/m ³)	10 mg/m ³ (total dust) 5 mg/m ³ (respirable dust)
Limestone (1317-65-3)		
USA NIOSH	NIOSH REL (TWA) (mg/m ³)	10 mg/m ³ (total dust) 5 mg/m ³ (respirable dust)
USA OSHA	OSHA PEL (TWA) (mg/m ³)	15 mg/m ³ (total dust) 5 mg/m ³ (respirable fraction)
Quartz (14808-60-7)		
USA ACGIH	ACGIH TWA (mg/m ³)	0.025 mg/m ³ (respirable fraction)
USA ACGIH	ACGIH chemical category	A2 - Suspected Human Carcinogen
USA NIOSH	NIOSH REL (TWA) (mg/m ³)	0.05 mg/m ³ (respirable dust)
USA IDLH	US IDLH (mg/m ³)	50 mg/m ³ (respirable dust)
USA OSHA	OSHA PEL (STEL) (mg/m ³)	250 mppcf/%SiO ₂ +5, 10mg/m ³ /%SiO ₂ +2
Tetrachloromethane (56-23-5)		
USA ACGIH	ACGIH TWA (ppm)	5 ppm
USA ACGIH	ACGIH STEL (ppm)	10 ppm
USA ACGIH	ACGIH chemical category	Skin - potential significant contribution to overall exposure by the cutaneous route,Suspected Human Carcinogen
USA NIOSH	NIOSH REL (STEL) (mg/m ³)	12.6 mg/m ³
USA NIOSH	NIOSH REL (STEL) (ppm)	2 ppm
USA IDLH	US IDLH (ppm)	200 ppm
USA OSHA	OSHA PEL (TWA) (ppm)	10 ppm
USA OSHA	OSHA PEL (Ceiling) (ppm)	25 ppm
Bis(2-ethylhexyl) phthalate (117-81-7)		
USA ACGIH	ACGIH TWA (mg/m ³)	5 mg/m ³
USA ACGIH	ACGIH chemical category	Confirmed Animal Carcinogen with Unknown Relevance to Humans
USA NIOSH	NIOSH REL (TWA) (mg/m ³)	5 mg/m ³
USA NIOSH	NIOSH REL (STEL) (mg/m ³)	10 mg/m ³
USA IDLH	US IDLH (mg/m ³)	5000 mg/m ³

8.2. Exposure Controls

Appropriate Engineering Controls

: Ensure adequate ventilation, especially in confined areas. Ensure all national/local regulations are observed.

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Personal Protective Equipment	: Not generally required. The use of personal protective equipment may be necessary as conditions warrant.
Materials for Protective Clothing	: For particulates and dust: Chemically resistant materials and fabrics.
Hand Protection	: For particulates and dust: Wear chemically resistant protective gloves.
Eye Protection	: For particulates and dust: Chemical safety goggles.
Respiratory Protection	: If exposure limits are exceeded or irritation is experienced, approved respiratory protection should be worn.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on Basic Physical and Chemical Properties

Physical State	: Solid
Appearance	: Solid sheets
Odor	: Odorless
Odor Threshold	: Odorless
pH	: N/A
Evaporation Rate	: N/A
Melting Point	: N/A
Freezing Point	: No Data Available
Boiling Point	: N/A
Flash Point	: N/A
Auto-ignition Temperature	: No Data Available
Decomposition Temperature	: No Data Available
Flammability (solid, gas)	: No
Vapor Pressure	: N/A
Relative Vapor Density at 20 °C	: N/A
Relative Density	: 3.6 (ASTM D-792)
Solubility	: Negligible
Partition Coefficient: N-Octanol/Water	: No Data Available
Viscosity	: N/A

9.2. **Other Information** No additional information available

SECTION 10: STABILITY AND REACTIVITY

- 10.1. **Reactivity:** Hazardous reactions are not expected to occur under normal conditions.
- 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:** None known.
- 10.5. **Incompatible Materials:** Fluorine. Magnesium. Acids.
- 10.6. **Hazardous Decomposition Products:** Thermal decomposition generates chlorine gas. Thermal decomposition above 825 °C to calcium oxide and carbon dioxide.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information On Toxicological Effects

Acute Toxicity: Not classified

Carbonic acid, calcium salt (1:1) (471-34-1)	
LD50 Oral Rat	6450 mg/kg
Quartz (14808-60-7)	
LD50 Oral Rat	> 5000 mg/kg
LD50 Dermal Rat	> 5000 mg/kg
Tetrachloromethane (56-23-5)	
LD50 Oral Rat	2350 mg/kg
LD50 Dermal Rat	5070 mg/kg
LC50 Inhalation Rat	8000 ppm/4h
Bis(2-ethylhexyl) phthalate (117-81-7)	
LD50 Oral Rat	6860 mg/kg
LD50 Dermal Rabbit	25 g/kg
LC50 Inhalation Rat	> 23.67 mg/l (Exposure time: 1 h)

Skin Corrosion/Irritation: Not classified

Serious Eye Damage/Irritation: Not classified

Respiratory or Skin Sensitization: Not classified

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Germ Cell Mutagenicity: Not classified

Carcinogenicity: Suspected of causing cancer.

Talc (14807-96-6)	
IARC group	3
National Toxicology Program (NTP) Status	Evidence of Carcinogenicity, Twelfth Report - Items under consideration.
Quartz (14808-60-7)	
IARC group	1
National Toxicology Program (NTP) Status	Known Human Carcinogens.
OSHA Hazard Communication Carcinogen List	In OSHA Hazard Communication Carcinogen list.
Tetrachloromethane (56-23-5)	
IARC group	2B
National Toxicology Program (NTP) Status	Reasonably anticipated to be Human Carcinogen.
OSHA Hazard Communication Carcinogen List	In OSHA Hazard Communication Carcinogen list.
Bis(2-ethylhexyl) phthalate (117-81-7)	
IARC group	2B
National Toxicology Program (NTP) Status	Evidence of Carcinogenicity, Reasonably anticipated to be Human Carcinogen, Twelfth Report - Items under consideration.
OSHA Hazard Communication Carcinogen List	In OSHA Hazard Communication Carcinogen list.

Reproductive Toxicity: May damage fertility or the unborn child.

Specific Target Organ Toxicity (Single Exposure): Not classified

Specific Target Organ Toxicity (Repeated Exposure): Not classified

Aspiration Hazard: Not classified

Symptoms/Injuries After Inhalation: For particulates and dust: May cause respiratory irritation.

Symptoms/Injuries After Skin Contact: For particulates and dust: May cause skin irritation. May cause an allergic reaction in sensitive individuals.

Symptoms/Injuries After Eye Contact: For particulates and dust: May cause eye irritation.

Symptoms/Injuries After Ingestion: Ingestion is likely to be harmful or have adverse effects.

Chronic Symptoms: May damage fertility or the unborn child. Suspected of causing cancer.

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity

Ecology - General : Not classified.

Talc (14807-96-6)	
LC50 Fish 1	> 100 g/l (Exposure time: 96 h - Species: Brachydanio rerio [semi-static])
Tetrachloromethane (56-23-5)	
LC50 Fish 1	36.3 - 47.3 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])
EC50 Daphnia 1	29 mg/l (Exposure time: 48 h - Species: Daphnia magna)
LC 50 Fish 2	9.68 - 11.3 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static])
Bis(2-ethylhexyl) phthalate (117-81-7)	
LC50 Fish 1	> 0.16 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static])
EC50 Daphnia 1	> 0.16 mg/l (Exposure time: 48 h - Species: Daphnia magna)
LC 50 Fish 2	> 0.200 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [static])
EC50 Daphnia 2	9.4 mg/l (Exposure time: 48 h - Species: Daphnia magna)
NOEC chronic crustacea	0.158 (Exposure time: 21d - Species: Daphnia magna)

12.2. Persistence and Degradability Not established

12.3. Bioaccumulative Potential

Talc (14807-96-6)	
BCF fish 1	(no known bioaccumulation)
Carbonic acid, calcium salt (1:1) (471-34-1)	
BCF fish 1	(no bioaccumulation)
Tetrachloromethane (56-23-5)	
BCF fish 1	17.7 - 30
Log Pow	2.75 (at 23 °C)
Bis(2-ethylhexyl) phthalate (117-81-7)	
BCF fish 1	1 - 29.7

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Log Pow	5.03
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12.4. Mobility in Soil No additional information available

12.5. Other Adverse Effects

Other Information : Avoid release to the environment.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Waste Disposal Recommendations: Dispose of waste material in accordance with all local, regional, national, and international regulations.

SECTION 14: TRANSPORT INFORMATION

14.1. In Accordance with DOT Not regulated for transport

14.2. In Accordance with IMDG Not regulated for transport

14.3. In Accordance with IATA Not regulated for transport

SECTION 15: REGULATORY INFORMATION

15.1 US Federal Regulations

Talc (14807-96-6)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

Carbonic acid, calcium salt (1:1) (471-34-1)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

Limestone (1317-65-3)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

Quartz (14808-60-7)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard Delayed (chronic) health hazard
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Tetrachloromethane (56-23-5)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

Listed on United States SARA Section 313
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SARA Section 313 - Emission Reporting	0.1 %
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Zinc compounds (RR-00578-7)

Listed on United States SARA Section 313
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SARA Section 313 - Emission Reporting	1.0 %
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Bis(2-ethylhexyl) phthalate (117-81-7)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

Listed on United States SARA Section 313
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EPA TSCA Regulatory Flag	T - T - indicates a substance that is the subject of a Section 4 test rule under TSCA.
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SARA Section 313 - Emission Reporting	0.1 %
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15.2 US State Regulations

Quartz (14808-60-7)

U.S. - California - Proposition 65 - Carcinogens List	WARNING: This product contains chemicals known to the State of California to cause cancer.
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Tetrachloromethane (56-23-5)

U.S. - California - Proposition 65 - Carcinogens List	WARNING: This product contains chemicals known to the State of California to cause cancer.
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Bis(2-ethylhexyl) phthalate (117-81-7)

U.S. - California - Proposition 65 - Carcinogens List	WARNING: This product contains chemicals known to the State of California to cause cancer.
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U.S. - California - Proposition 65 - Developmental Toxicity	WARNING: This product contains chemicals known to the State of California to cause birth defects.
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U.S. - California - Proposition 65 - Reproductive Toxicity - Male	WARNING: This product contains chemicals known to the State of California to cause (Male) reproductive harm.
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Talc (14807-96-6)

U.S. - Massachusetts - Right To Know List

U.S. - New Jersey - Right to Know Hazardous Substance List
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U.S. - Pennsylvania - RTK (Right to Know) List
Limestone (1317-65-3)
U.S. - Massachusetts - Right To Know List U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) List
Quartz (14808-60-7)
U.S. - Massachusetts - Right To Know List U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) List
Tetrachloromethane (56-23-5)
U.S. - Massachusetts - Right To Know List U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List U.S. - Pennsylvania - RTK (Right to Know) - Special Hazardous Substances U.S. - Pennsylvania - RTK (Right to Know) List
Zinc compounds (RR-00578-7)
U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List U.S. - Pennsylvania - RTK (Right to Know) List
Bis(2-ethylhexyl) phthalate (117-81-7)
U.S. - Massachusetts - Right To Know List U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List U.S. - Pennsylvania - RTK (Right to Know) - Special Hazardous Substances U.S. - Pennsylvania - RTK (Right to Know) List

SECTION 16: OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION

Revision Date : 05/07/2015

Other Information : This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200.

GHS Full Text Phrases:

Acute Tox. 3 (Dermal)	Acute toxicity (dermal) Category 3
Acute Tox. 3 (Inhalation)	Acute toxicity (inhalation) Category 3
Acute Tox. 3 (Oral)	Acute toxicity (oral) Category 3
Aquatic Acute 1	Hazardous to the aquatic environment - Acute Hazard Category 1
Aquatic Acute 3	Hazardous to the aquatic environment - Acute Hazard Category 3
Aquatic Chronic 2	Hazardous to the aquatic environment - Chronic Hazard Category 2
Aquatic Chronic 3	Hazardous to the aquatic environment - Chronic Hazard Category 3
Aquatic Chronic 4	Hazardous to the aquatic environment - Chronic Hazard Category 4
Carc. 1A	Carcinogenicity Category 1A
Carc. 1B	Carcinogenicity Category 1B
Carc. 2	Carcinogenicity Category 2
Comb. Dust	Combustible Dust
Eye Irrit. 2A	Serious eye damage/eye irritation Category 2A
Eye Irrit. 2B	Serious eye damage/eye irritation Category 2B
Ozone 1	Hazardous to the ozone layer Category 1
Repr. 1B	Reproductive toxicity Category 1B
Skin Irrit. 2	Skin corrosion/irritation Category 2
Skin Sens. 1	Skin sensitization Category 1
STOT RE 1	Specific target organ toxicity (repeated exposure) Category 1
STOT SE 3	Specific target organ toxicity (single exposure) Category 3
Comb. Dust	May form combustible dust concentrations in air
H301	Toxic if swallowed
H311	Toxic in contact with skin

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H315	Causes skin irritation
H317	May cause an allergic skin reaction
H319	Causes serious eye irritation
H320	Causes eye irritation
H331	Toxic if inhaled
H335	May cause respiratory irritation
H350	May cause cancer
H351	Suspected of causing cancer
H360	May damage fertility or the unborn child
H372	Causes damage to organs through prolonged or repeated exposure
H400	Very toxic to aquatic life
H402	Harmful to aquatic life
H411	Toxic to aquatic life with long lasting effects
H412	Harmful to aquatic life with long lasting effects
H413	May cause long lasting harmful effects to aquatic life
H420	Harms public health and the environment by destroying ozone in the upper atmosphere

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

SDS US (GHS HazCom)