

## SAFETY DATA SHEET

## Fire Foam 2-K

The safety data sheet is in accordance with Commission Regulation (EU) 2020/878 of 18 June 2020 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)

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

Date issued 07.05.2019

Revision date 25.03.2024

**1.1. Product identifier**

Product name Fire Foam 2-K

UFI 67E3-FVF1-P00E-HXF6

Article no. 100901

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

Use of the substance / mixture Sealant Sealant. Insulation.

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

Company name Fireseal AB

Postal address Esbogatan 14

Postcode SE-164 74

City Kista

Country Sweden

Email [info@fireseal.se](mailto:info@fireseal.se)

**1.4. Emergency telephone number**

Emergency telephone Telephone number: 112  
Description: Request poison information.

**SECTION 2: Hazards identification****2.1. Classification of the substance or mixture**

Classification according to Regulation (EC) No 1272/2008 Aerosol 1; H222

[CLP / GHS] Aerosol 1; H229

Skin Irrit. 2; H315

CLP classification, comments	<p>Skin Sens. 1; H317</p> <p>Eye Irrit. 2; H319</p> <p>Resp. Sens. 1; H334</p> <p>STOT SE 3; H335</p> <p>Carc. 2; H351</p> <p>STOT RE 2; H373</p> <p>The full text for all hazard statements is displayed in section 16.</p>
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## 2.2. Label elements

### Hazard pictograms (CLP)



Composition on the label	4,4' diphenylmethanediisocyanate, isomere, homologue and mixtures
Signal word	Danger
Hazard statements	<p>H222 Extremely flammable aerosol.</p> <p>H229 Pressurised container: May burst if heated.</p> <p>H315 Causes skin irritation.</p> <p>H317 May cause an allergic skin reaction.</p> <p>H319 Causes serious eye irritation.</p> <p>H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.</p> <p>H335 May cause respiratory irritation.</p> <p>H351 Suspected of causing cancer .</p> <p>H373 May cause damage to organs through prolonged or repeated exposure</p>
Precautionary statements	<p>P101 If medical advice is needed, have product container or label at hand.</p> <p>P102 Keep out of reach of children.</p> <p>P202 Do not handle until all safety precautions have been read and understood.</p> <p>P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.</p> <p>P211 Do not spray on an open flame or other ignition source.</p> <p>P251 Do not pierce or burn, even after use.</p> <p>P260 Do not breathe dust / fume / gas / mist / vapours / spray.</p> <p>P271 Use only outdoors or in a well-ventilated area.</p> <p>P280 Wear protective gloves / protective clothing / eye protection / face protection.</p> <p>P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.</p> <p>P312 Call a POISON CENTER / doctor / if you feel unwell.</p> <p>P342+P311 If experiencing respiratory symptoms: Call a POISON CENTER or doctor / physician.</p> <p>P405 Store locked up.</p> <p>P410+P412 Protect from sunlight. Do no expose to temperatures exceeding 50 °C / 122°F.</p> <p>P501 Dispose of contents / container to avfallscentral i enlighet med lokala/ nationella bestämmelser.</p>

Supplemental label information	<p>EUH 204 Contains isocyanates. May produce an allergic reaction.</p> <p>As from 24 August 2023 adequate training is required before industrial or professional use.</p> <p>Persons already sensitised to diisocyanates may develop allergic reactions when using this product. Persons suffering from asthma, eczema or skin problems should avoid contact, including dermal contact, with this product. This product should not be used under conditions of poor ventilation unless a protective mask with an appropriate gas filter (i.e. type A1 according to standard EN 14387) is used</p>
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### 2.3. Other hazards

PBT / vPvB	Not PBT or vPvB.
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## SECTION 3: Composition / information on ingredients

### 3.2. Mixtures

Composition type	Mixture			
Substance	Identification	Classification	Contents	Notes
4,4'-diphenylmethanediisocyanate, isomere, homologue and mixtures	CAS No.: 9016-87-9 EC No.: 618-498-9	Carc. 2; H351 Acute tox. 4; H332 Resp. Sens. 1; H334 Skin Sens. 1; H317 STOT RE 2; H373 Eye Irrit. 2; H319 STOT SE 3; H335 Skin Irrit. 2; H315	10 - -20 %	
Ethanediol	CAS No.: 107-21-1 EC No.: 203-473-3 Index No.: 603-027-00-1 REACH Reg. No.: 01-2119456816-28-XXXX	Acute Tox. 4; H302 STOT RE 2; H373	5 - 10 %	
Dimethyl ether	CAS No.: 115-10-6 EC No.: 204-065-8 Index No.: 603-019-00-8 REACH Reg. No.: 01-2119472128-37-XXXX	Flam. Gas 1; H220 Press. Gas (Comp.) ; H280 CLP classification, notes: U	5 - 10 %	
Isobutane	CAS No.: 75-28-5 EC No.: 200-857-2 Index No.: 601-004-00-0 REACH Reg. No.: 01-2119485395-27-XXXX	Flam. Gas 1; H220 Press. Gas (Comp.) CLP classification, notes: C; U	5 - 10 %	
Propane	CAS No.: 74-98-6 EC No.: 200-827-9 Index No.: 601-003-00-5 REACH Reg. No.: 01-2119486944-21-XXXX	Flam. Gas 1; H220 Press. Gas (Comp.) CLP classification, notes: U	2,5 - 5 %	
Substance comments	The full text for all hazard statements is displayed in section 16.			

## SECTION 4: First aid measures

#### 4.1. Description of first aid measures

General	Remove affected person from source of contamination. Get medical attention. Upon contact with the doctor, show the safety data sheet or label.
Inhalation	Move the exposed person to fresh air at once.
Skin contact	Immediately remove contaminated clothing. Wash the skin immediately with soap and water. Contact physician if irritation persists.
Eye contact	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.
Ingestion	Do not induce vomiting. Rinse mouth. Ge inte mjölk eller alkoholhaltiga drycker. Do not give victim anything to drink if he is unconscious. Get medical attention.

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

Acute symptoms and effects	Allergic reaction. Breathing difficulty. Irritation of the respiratory tract. Skin irritation.
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#### 4.3. Indication of any immediate medical attention and special treatment needed

Medical treatment	Treat symptomatically.
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### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

Suitable extinguishing media	Foam, carbon dioxide or dry powder. Water spray.
Improper extinguishing media	Waterjet.

#### 5.2. Special hazards arising from the substance or mixture

Fire and explosion hazards	Extremely flammable aerosol. Aerosol cans may explode in a fire.
Hazardous combustion products	Hydrogen cyanide (HCN). Carbon monoxide (CO). Carbon dioxide (CO <sub>2</sub> ). Nitrous gases (NO <sub>x</sub> ). Chlorine compounds. Bromine compounds

#### 5.3. Advice for firefighters

Personal protective equipment	Use breathing apparatus.
Fire fighting procedures	Avoid breathing fire vapours. Dike and collect extinguishing water. Use water to keep fire exposed containers cool and disperse vapours.

### SECTION 6: Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

General measures	Ensure good ventilation. Keep away from ignition sources. Provide adequate ventilation. Observe Occupational Exposure Limits and minimise the risk of inhalation of vapours. Evacuate area.
Personal protection measures	Wear necessary protective equipment.

## 6.2. Environmental precautions

Environmental precautionary measures	Do not discharge into drains, water courses or onto the ground. Contact local authorities in case of spillage to drain/aquatic environment.
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## 6.3. Methods and material for containment and cleaning up

Clean up	Absorb spilled substance with sand or earth. Collect spillage in containers, seal securely and deliver for disposal according to local regulations.
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## 6.4. Reference to other sections

Other instructions	See section 7, 8 and 13.
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## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Handling	Observe good chemical hygiene practices. When using do not eat, drink or smoke. Wash hands and contaminated areas with water and soap after finished work. Change contaminated clothing. Avoid contact with skin and eyes. Persons susceptible to allergic reactions should not handle this product. Take precautionary measures against static discharge.
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### Protective safety measures

Safety measures to prevent fire	Keep away from heat / sparks / open flames / hot surfaces. – No smoking. Store separated from ignition sources. Take precautionary measures against static discharge. Do not spray on an open flame or other ignition source.
Advice on general occupational hygiene	Good personal hygiene is necessary. Wash hands and contaminated areas with water and soap before leaving the work site.

### 7.2. Conditions for safe storage, including any incompatibilities

Storage	Aerosol cans: Must not be exposed to direct sunlight or temperatures above 50°C. Avoid contact with oxidising agents. Keep away from food, drink and animal feeding stuffs. Keep container tightly closed. Store in a well-ventilated place. Keep cool. Risk of explosion if heated under confinement. Do not use solvents.
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### 7.3. Specific end use(s)

Recommendations	Do not handle until all safety precautions have been read and understood.
Specific use(s)	The identified uses for this product are detailed in Section 1.2.

## SECTION 8: Exposure controls / personal protection

### 8.1. Control parameters

Substance	Identification	Exposure limits	TWA Year
4,4'-diphenylmethanediisocyanate, isomere, homologue and	CAS No.: 9016-87-9	Limit value (8 h) : 0,002 ppm <b>Limit value (short term)</b>	TWA Year: 2011

mixtures		Value: 0,005 ppm
Ethanediol	CAS No.: 107-21-1	Limit value (8 h) : 10 mg/m <sup>3</sup>
Dimethyl ether	CAS No.: 115-10-6	Limit value (8 h) : 400 ppm Limit value (8 h) : 766 mg/m <sup>3</sup> <b>Limit value (short term)</b> Value: 500 ppm <b>Limit value (short term)</b> Value: 958 mg/m <sup>3</sup>
Control parameters comments	EH40/2005, Workplace exposure limits 2005, with amendments.	

## 8.2. Exposure controls

### Safety signs



### Precautionary measures to prevent exposure

Appropriate engineering controls	Well-ventilated area. Observe occupational exposure limits and minimise the risk of inhalation of vapours and mist. Provide eyewash, quick drench.
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### Eye / face protection

Suitable eye protection	Wear tight-fitting goggles or face shield. EN 166:2001
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### Hand protection

Skin- / hand protection, short term contact	Use protective gloves made of: Nitrile. Butyl rubber. (> 0,1 mm)
Skin- / hand protection, long term contact	Use protective gloves made of: Viton rubber (fluor rubber). (0,4 mm)
Suitable gloves type	Be aware that the liquid may penetrate the gloves. Frequent change is advisable.
Breakthrough time	Value: > 30 minute(s) Comments: Viton

### Skin protection

Suitable protective clothing	Wear appropriate clothing to prevent reasonably probable skin contact. EN ISO 20345 Long sleeved clothing.
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### Respiratory protection

Respiratory protection necessary at	Suitable respiratory protection must be used at high concentrations. In case of inadequate ventilation wear respiratory protection.
Recommended type of equipment	A1: < 1000 ppm; A2: < 5000 ppm; A3: < 10000 ppm Use high efficiency particulate respirator with appropriate filter.

### Appropriate environmental exposure control

Environmental exposure controls	Avoid release to the environment.
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## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Form	Aerosol dispenser: foam aerosol
Physical state	Aerosol.
Colour	Misc. colours.
Odour	Data lacking.
Odour limit	Comments: Not entered.
pH	Comments: Not entered.
Melting point / melting range	Comments: Not entered.
Freezing point	Comments: No data.
Boiling point / boiling range	Comments: No data recorded.
Flash point	Comments: No data recorded.
Evaporation rate	Comments: No data recorded.
Flammability	Extremely flammable aerosol.
Lower explosion limit with unit of measurement	Comments: No information.
Upper explosion limit with units of measurement	Comments: No information.
Explosion limit	Comments: No information
Vapour pressure	Value: 5100 hPa
Vapour density	Comments: Not determined.
Relative density	Comments: Not determined.
Density	Value: 1,00 g/cm <sup>3</sup> Temperature: 23 °C
Bulk density	Comments: Not entered.
Solubility	Comments: Data lacking.
Partition coefficient: n-octanol/ water	Comments: Data lacking.
Auto-ignition temperature	Comments: Data lacking.
Decomposition temperature	Comments: No information.
Viscosity	Comments: Data lacking.

### 9.2. Other information

#### Other physical and chemical properties

Physical and chemical properties	Not entered.
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## SECTION 10: Stability and reactivity

### 10.1. Reactivity

Reactivity	Pressurized container: Do not pierce or burn, even after use. There are no known reactivity hazards associated with this product.
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### 10.2. Chemical stability

Stability	Stable under normal temperature conditions and recommended use.
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### 10.3. Possibility of hazardous reactions

Possibility of hazardous reactions	Not known.
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### 10.4. Conditions to avoid

Conditions to avoid	Avoid heat, flames and other sources of ignition.
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### 10.5. Incompatible materials

Materials to avoid	Data lacking.
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### 10.6. Hazardous decomposition products

Hazardous decomposition products	None under normal conditions.
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## SECTION 11: Toxicological information

### 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity	Effect tested: LD50 Route of exposure: Oral Value: > 630 mg/kg Species: Rat Comments: CAS no: 1244733-77-4
	Effect tested: LC50 Route of exposure: Inhalation. (dust / mist) Duration: 4 hour(s) Value: > 7 mg/l Species: Rat Comments: CAS no: 1244733-77-4
	Effect tested: LD50 Route of exposure: Dermal Value: > 5000 mg/kg Species: Rabbit Comments: CAS no: 1244733-77-4
	Effect tested: LD50 Route of exposure: Oral Value: > 10 000 mg/kg Species: Rat



Comments: CAS no: 9016-87-9

Effect tested: LC50  
 Route of exposure: Inhalation. (dust / mist)  
 Duration: 4 hour(s)  
 Value: 1,5 mg/l  
 Comments: CAS no: 9016-87-9  
 Expert assessment: The substance is moderately toxic after short-term inhalation.

Effect tested: LD50  
 Route of exposure: Dermal  
 Value: > 9.400 mg/kg  
 Species: Rabbit  
 Comments: CAS no: 9016-87-9

### Other information regarding health hazards

Assessment of acute toxicity, classification	No specific health warnings noted.
Assessment of skin corrosion / irritation, classification	Irritating.
Assessment of eye damage or irritation, classification	Causes serious eye irritation.
Assessment of respiratory sensitisation, classification	May cause an asthma-like shortness of breath.
Assessment of skin sensitisation, classification	May cause an allergic skin reaction.
Assessment of germ cell mutagenicity, classification	No specific health warnings noted.
Assessment of carcinogenicity, classification	Suspected of causing cancer
Assessment of reproductive toxicity, classification	No specific health warnings noted.
Assessment of specific target organ toxicity - single exposure, classification	May cause respiratory irritation.
Assessment of specific target organ toxicity - repeated exposure, classification	May cause damage to organs through prolonged or repeated exposure inandning.
Assessment of aspiration hazard, classification	No specific health warnings noted.

### Symptoms of exposure

In case of ingestion	May cause irritation to the mouth and throat.
In case of skin contact	Skin irritation. May cause sensitisation by skin contact.
In case of inhalation	Irritating. May cause allergy or asthma symptoms or difficulty breathing if inhaled.
In case of eye contact	Splashes may irritate and cause redness.

## 11.2 Other information

Endocrine disruption	This product does not contain any substances considered to be endocrine disruptors in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.
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## SECTION 12: Ecological information

### 12.1. Toxicity

Aquatic toxicity, fish	Value: > 1000 mg/l Effect dose concentration: LC50 Exposure time: 96 hour(s) Species: Zebrafisk - Danio rerio Comments: CAS no: 9016-87-9
Aquatic toxicity, algae	Toxicity type: Chronic Value: 82 mg/l Exposure time: 72 hour(s) Species: Pseudokirchneriella subcapitata Method: OECD 201 Comments: CAS no: 1244733-77-4  Value: > 1640 mg/l Effect dose concentration: EC50 Exposure time: 72 hour(s) Species: Scenedesmus subspicatus Comments: CAS no: 9016-87-9  Value: 13 mg/l Effect dose concentration: NOEC Exposure time: 72 hour(s) Species: Pseudokirchneriella subcapitata Method: OECD 201 Comments: CAS no: 1244733-77-4
Aquatic toxicity, crustacean	Toxicity type: Chronic Value: 32 mg/l Exposure time: 21 day(s) Species: Daphnia magna Method: OECD 202 Comments: CAS no: 1244733-77-4
Ecotoxicity	Not classified as dangerous to the environment.

### 12.2. Persistence and degradability

Persistence and degradability description/evaluation	No recommendation given.
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### 12.3. Bioaccumulative potential

Bioaccumulation, evaluation	Data lacking.
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### 12.4. Mobility in soil

Mobility	Data lacking.
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## 12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment	Not Classified as PBT/vPvB by current EU criteria.
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## 12.6. Endocrine disrupting properties

Endocrine disrupting properties	This product does not contain any substances considered to be endocrine disruptors in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.
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## 12.7. Other adverse effects

Additional ecological information	No recommendation given.
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## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

EWC waste code	EWC waste code: 160504 gases in pressure containers (including halons) containing dangerous substances Classified as hazardous waste: Yes
EWL packing	EWC waste code: 150110 packaging containing residues of or contaminated by dangerous substances Classified as hazardous waste: Yes
Other information	When handling waste, consideration should be made to the safety precautions applying to handling of the product. Waste to be treated as controlled waste. Disposal to licensed waste disposal site in accordance with local Waste Disposal Authority. Avoid release to the environment.

## SECTION 14: Transport information

Dangerous goods	Yes
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### 14.1. UN number

ADR/RID/ADN	1950
IMDG	1950
ICAO/IATA	1950

### 14.2. UN proper shipping name

Proper shipping name English ADR/RID/ADN	AEROSOLS
ADR/RID/ADN	AEROSOLS
IMDG	AEROSOLS
ICAO/IATA	AEROSOLS, FLAMMABLE

### 14.3. Transport hazard class(es)

ADR/RID/ADN	2.1
Classification code ADR/RID/ADN	5F
IMDG	2.1
ICAO/IATA	2.1

#### 14.4. Packing group

Comments	No recommendation given.
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#### 14.5. Environmental hazards

IMDG Marine pollutant	No
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#### 14.6. Special precautions for user

Special safety precautions for user	Data lacking.
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#### 14.7. Maritime transport in bulk according to IMO instruments

Product name	AEROSOLS, FLAMMABLE
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#### Additional information

Hazard label ADR/RID/ADN	2.1
Hazard label IMDG	2.1
Hazard label ICAO/IATA	2.1

#### ADR/RID Other information

Tunnel restriction code	D
Transport category	2

#### IMDG Other information

EmS	F-D, S-U
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#### ICAO/IATA Other information

Additional information ICAO/IATA	Y203
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### SECTION 15: Regulatory information

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

VOC	VOC percent by weight: 18,25
Nanomaterial	No
Legislation and regulations	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 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, including amendments.  
 Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 (REACH).  
 EH40/2005, Workplace exposure limits 2005, with amendments.  
 The List of Wastes (England) (Amendment) Regulations 2005. (SI 2005 No. 895).

## 15.2. Chemical safety assessment

Chemical safety assessment performed	No
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## SECTION 16: Other information

Supplier's notes	The information on this data sheet represents our current data and is reliable provided that the product is used under the prescribed conditions and in accordance with the application specified on the packaging and/or in the technical guidance literature. Any other use of the product which involves using the product in combination with any other product or any other process is the responsibility of the user.
List of relevant H-phrases (Section 2 and 3)	H220 Extremely flammable gas. H222 Extremely flammable aerosol. H229 Pressurised container: May burst if heated. H280 Contains gas under pressure; may explode if heated. H302 Harmful if swallowed. H315 Causes skin irritation. H317 May cause an allergic skin reaction. H319 Causes serious eye irritation. H332 Harmful if inhaled. H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled. H335 May cause respiratory irritation. H351 Suspected of causing cancer H351 Suspected of causing cancer . H373 May cause damage to organs through prolonged or repeated exposure
Key literature references and sources for data	MSDS supplied by the manufacturer
Information added, deleted or revised	Relevant changes compared to the previous version of the safety data sheet are indicated with verticle lines in the left margin.
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