

---

**SAFETY DATA SHEET**

according to Regulation (EC) No. 1907/2006

**0892152501 - Fire Rated Gun Foam**

---

Version 3.0	Revision Date 30.06.2015	Print Date 02.07.2015	GB / EN
	Date of last issue: 19.12.2014		
	Date of first issue: 24.05.2013		

---

**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1 Product identifier**

Commercial Product Name : Fire Rated Gun Foam  
Product code : 0892152501  
SDS-Identcode : 10044865

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

Use of the Substance/Mixture : Sealant

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

Company : Wurth UK Ltd  
1 Centurion Way  
Erith, Kent  
United Kingdom  
Telephone : +44 (0)3300 555 444  
Telefax : +44 (0)3300 555 666  
Company : WÜRTH IRELAND LTD.  
Monaclinoe Ind. Est. Ballysimon Road  
Limerick  
Ireland  
Telephone : +353 61 430200  
Telefax : +353 61 412428

Responsible/issuing person : E-mail address: prodsafe@wuerth.com

**1.4 Emergency telephone number**

National Chemical Emergency Centre  
+44 (0)870 190 6777

---

**SECTION 2: Hazards identification****2.1 Classification of the substance or mixture****Classification (REGULATION (EC) No 1272/2008)**

Aerosols, Category 1	H222: Extremely flammable aerosol. H229: Pressurised container: May burst if heated.
Acute toxicity, Category 4	H332: Harmful if inhaled.
Skin irritation, Category 2	H315: Causes skin irritation.
Eye irritation, Category 2	H319: Causes serious eye irritation.
Respiratory sensitisation, Category 1	H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled.

## SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

### 0892152501 - Fire Rated Gun Foam

Version 3.0

Revision Date 30.06.2015

Print Date 02.07.2015

GB / EN

Date of last issue:

19.12.2014

Date of first issue:

24.05.2013

Skin sensitisation, Category 1  
 Carcinogenicity, Category 2  
 Specific target organ toxicity - single exposure, Category 3, Respiratory system  
 Specific target organ toxicity - repeated exposure, Category 2

H317: May cause an allergic skin reaction.

H351: Suspected of causing cancer.

H335: May cause respiratory irritation.

H373: May cause damage to organs through prolonged or repeated exposure.

#### Classification (67/548/EEC, 1999/45/EC)

Extremely flammable

R12: Extremely flammable.

Harmful

R20: Harmful by inhalation.

R48/20: Harmful: danger of serious damage to health by prolonged exposure through inhalation.

Carcinogenic Category 3

R40: Limited evidence of a carcinogenic effect.

Sensitising




R42/43: May cause sensitisation by inhalation and skin contact.

Irritant

R36/37/38: Irritating to eyes, respiratory system and skin.

## 2.2 Label elements

### Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms	:	  
Signal word	:	Danger
Hazard statements	:	H222 Extremely flammable aerosol. H229 Pressurised container: May burst if heated. 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. H373 May cause damage to organs through prolonged or repeated exposure.
Precautionary statements	:	<b>Prevention:</b> P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

## SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

### 0892152501 - Fire Rated Gun Foam

Version 3.0

Revision Date 30.06.2015

Print Date 02.07.2015

GB / EN

Date of last issue:

19.12.2014

Date of first issue:

24.05.2013

P211	Do not spray on an open flame or other ignition source.
P251	Do not pierce or burn, even after use.
P260	Do not breathe spray.
P280	Wear protective gloves/ protective clothing/ eye protection/ face protection.
P284	Wear respiratory protection.
<b>Response:</b>	
P304 + P340 + P312	IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor/ physician if you feel unwell.
P308 + P313	IF exposed or concerned: Get medical advice/ attention.
<b>Storage:</b>	
P410 + P412	Protect from sunlight. Do not expose to temperatures exceeding 50 °C/ 122 °F.

Hazardous components which must be listed on the label:

- Diphenylmethanediisocyanate, isomeres and homologues

#### Additional Labelling:

EUH204 Contains isocyanates. May produce an allergic reaction.

#### 2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

## SECTION 3: Composition/information on ingredients

### 3.2 Mixtures

#### Hazardous components

Chemical Name	CAS-No.	Classification (67/548/EEC)	Classification (1272/2008/EC)	Concentration [%]
	EC-No.			
	Registration number			

**SAFETY DATA SHEET**
*according to Regulation (EC) No. 1907/2006*
**0892152501 - Fire Rated Gun Foam**

Version 3.0

Revision Date 30.06.2015

Print Date 02.07.2015

GB / EN

Date of last issue:

19.12.2014

Date of first issue:

24.05.2013

Diphenylmethanediisocyanate, isomeres and homologues	9016-87-9	Xn; R20-R48/20 Xi; R36/37/38 Carc.Cat.3; R40 R42/43	Acute Tox. 4; H332 Skin Irrit. 2; H315 Eye Irrit. 2; H319 Resp. Sens. 1; H334 Skin Sens. 1; H317 Carc. 2; H351 STOT SE 3; H335 STOT RE 2; H373	>= 45 - < 50
Reaction mass of tris(2-chloropropyl) phosphate and tris(2-chloro-1-methylethyl) phosphate and Phosphoric acid, bis(2-chloro-1-methylethyl) 2-chloropropyl ester and Phosphoric acid, 2-chloro-1-methylethyl bis(2-chloropropyl) ester	911-815-4	Xn; R22	Acute Tox. 4; H302 Aquatic Chronic 3; H412	>= 15 - < 20
	01-2119486772-26			
2,2-dimethylpropan-1-ol, tribromo derivative	36483-57-5	Xi; R36	Eye Irrit. 2; H319	>= 3 - < 5
	253-057-0			
Substances with a workplace exposure limit :				
dimethyl ether	115-10-6	F+; R12	Flam. Gas 1; H220 Press. Gas Liquefied gas; H280	>= 7 - < 10
	204-065-8			
	01-2119472128-37			

For the full text of the R-phrases mentioned in this Section, see Section 16.

For the full text of the H-Statements mentioned in this Section, see Section 16.

**SECTION 4: First aid measures**
**4.1 Description of first aid measures**

- General advice : Symptoms of poisoning may appear several hours later. Call a doctor immediately if allergic signs, particularly in the respiratory tract, are observed. In the case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). First aider needs to protect himself. Move out of dangerous area. Never give anything by mouth to an unconscious person. Take off contaminated clothing and shoes immediately.
- If inhaled : If breathed in, move person into fresh air. Call a physician immedi-

---

**SAFETY DATA SHEET**

according to Regulation (EC) No. 1907/2006

**0892152501 - Fire Rated Gun Foam**

Version 3.0

Revision Date 30.06.2015

Print Date 02.07.2015

GB / EN

Date of last issue:

19.12.2014

Date of first issue:

24.05.2013

---

ately. Keep patient warm and at rest. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.

In case of skin contact : Call a physician immediately. In case of contact, immediately flush skin with soap and plenty of water. Do NOT use solvents or thinners. Wash off with polyethylene glycol and afterwards with plenty of water.

In case of eye contact : Protect unharmed eye. If easy to do, remove contact lens, if worn. In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

If swallowed : If swallowed, seek medical advice immediately and show this container or label. If swallowed, DO NOT induce vomiting. If a person vomits when lying on his back, place him in the recovery position.

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

No data available

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

No data available

---

**SECTION 5: Firefighting measures****5.1 Extinguishing media**

Suitable extinguishing media : Carbon dioxide (CO<sub>2</sub>), Dry powder, Water spray jet, Alcohol-resistant foam

Unsuitable extinguishing media : High volume water jet

**5.2 Special hazards arising from the substance or mixture**

Specific hazards during fire-fighting : Do not use a solid water stream as it may scatter and spread fire. Exposure to decomposition products may be a hazard to health.

**5.3 Advice for firefighters**

Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus. Use personal protective equipment.

Further information : Standard procedure for chemical fires. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. In the event of fire and/or explosion do not breathe fumes. Use water spray to cool unopened containers. Collect contaminated

---

---

**SAFETY DATA SHEET**

according to Regulation (EC) No. 1907/2006

**0892152501 - Fire Rated Gun Foam**

Version 3.0

Revision Date 30.06.2015

Print Date 02.07.2015

GB / EN

Date of last issue:

19.12.2014

Date of first issue:

24.05.2013

---

fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. If the temperature rises there is danger of the vessels bursting due to the high vapor pressure.

---

**SECTION 6: Accidental release measures****6.1 Personal precautions, protective equipment and emergency procedures**

Refer to protective measures listed in sections 7 and 8. Use personal protective equipment. Remove all sources of ignition. Avoid contact with skin and eyes. Ensure adequate ventilation, especially in confined areas. Immediately evacuate personnel to safe areas. Avoid inhalation of vapour or mist. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.

**6.2 Environmental precautions**

Do not flush into surface water or sanitary sewer system. Prevent further leakage or spillage if safe to do so. If the product contaminates rivers and lakes or drains inform respective authorities.

**6.3 Methods and materials for containment and cleaning up**

Contain and collect spillage with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations. Do not flush with water. Clean contaminated surface thoroughly.

**6.4 Reference to other sections**

see chapter: 7, 8, 11, 12 and 13

---

**SECTION 7: Handling and storage****7.1 Precautions for safe handling**

Advice on safe handling

: For personal protection see section 8. Limit the stocks at work place. Use with local exhaust ventilation. Use only in well-ventilated areas. Do not breathe vapours or spray mist. Avoid contact with skin and eyes. Do not spray on a naked flame or any incandescent material. Prevent the creation of flammable or explosive concentrations of vapour in air and avoid vapour concentration higher than the occupational exposure limits. Take precautionary measures against static discharges. Handle with care. Persons with a history of skin sensitisation problems or asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this mixture is being used.

## SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

### 0892152501 - Fire Rated Gun Foam

Version 3.0

Revision Date 30.06.2015

Print Date 02.07.2015

GB / EN

Date of last issue:

19.12.2014

Date of first issue:

24.05.2013

Advice on protection against fire and explosion : Normal measures for preventive fire protection. Vapours are heavier than air and may spread along floors. Vapours may form explosive mixtures with air. Keep away from heat and sources of ignition. Do not smoke. No sparking tools should be used. Electrical equipment should be protected to the appropriate standard.

Dust explosion class : Not applicable

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

Requirements for storage areas and containers : Store in a place accessible by authorized persons only. Store in original container. BEWARE: Aerosol is pressurized. Keep away from heat. Keep away from direct sunlight. Do not open by force or throw into fire even after use. Do not spray on flames or red-hot objects. Keep in a well-ventilated place. Do not keep the container sealed. Please observe the storage instructions for aerosols!

Advice on common storage : Keep away from food, drink and animal feedingstuffs. Never allow product to get in contact with water during storage. Do not store together with oxidizing and self-igniting products.

Other data : No decomposition if stored and applied as directed.

#### 7.3 Specific end use(s)

No data available

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

Components	CAS-No.	Control parameters	Basis	Update
Diphenylmethanediisocyanate, isomers and homologues	9016-87-9	TWA: 0,02 mg/m <sup>3</sup> , 53+54, 55, Sen, 56, STEL: 0,07 mg/m <sup>3</sup> , 53+54, 55, Sen, 56,	GB EH40	2011-12-01
dimethyl ether	115-10-6	TWA: 766 mg/m <sup>3</sup> , 400 ppm STEL: 958 mg/m <sup>3</sup> , 500 ppm	GB EH40	2005-04-06
dimethyl ether	115-10-6	TWA: 1.920 mg/m <sup>3</sup> , 1.000 ppm	2000/39/EC	2009-12-19

---

**SAFETY DATA SHEET**

according to Regulation (EC) No. 1907/2006

**0892152501 - Fire Rated Gun Foam**

Version 3.0

Revision Date 30.06.2015

Print Date 02.07.2015

GB / EN

Date of last issue:

19.12.2014

Date of first issue:

24.05.2013

---

Other information on limit values: see chapter 16

**8.2 Exposure controls****Engineering measures**

Provide sufficient air exchange and/or exhaust in work rooms.

**Personal protective equipment**

Respiratory protection : 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.

Hand protection

Material : Low density polyethylene (LDPE)

Glove thickness : 0,02 mm

Break through time: : < 5 min

Remarks : Choose gloves to protect hands against chemicals depending on the concentration and quantity of the hazardous substance and specific to place of work. For special applications, we recommend clarifying the resistance to chemicals of the aforementioned protective gloves with the glove manufacturer.

Eye protection : Tightly fitting safety goggles

Skin and body protection : Flame retardant antistatic protective clothing.  
Choose body protection according to the amount and concentration of the dangerous substance at the work place.



---

**SAFETY DATA SHEET**

according to Regulation (EC) No. 1907/2006

**0892152501 - Fire Rated Gun Foam**

Version 3.0

Revision Date 30.06.2015

Print Date 02.07.2015

GB / EN

Date of last issue:

19.12.2014

Date of first issue:

24.05.2013

---

**Hygiene measures**

- : Handle in accordance with good industrial hygiene and safety practice.
- General industrial hygiene practice.
- Do not inhale aerosol.
- Avoid contact with skin, eyes and clothing.
- When using do not eat, drink or smoke.
- Wash hands before breaks and at the end of workday.
- Follow the skin protection plan.
- Take off all contaminated clothing immediately.
- Wash contaminated clothing before re-use.

**Environmental exposure controls****General advice**

- : Do not flush into surface water or sanitary sewer system.
  - Prevent further leakage or spillage if safe to do so.
  - If the product contaminates rivers and lakes or drains inform respective authorities.
- 

**SECTION 9: Physical and chemical properties****9.1 Information on basic physical and chemical properties**

- Appearance : Aerosol containing a liquefied gas
- Propellant : dimethyl ether, isobutane, propane
- Colour : No data available
- Odour : characteristic
- Odour Threshold : No data available
- Flash point : -97 °C
- Active ingredient
- Ignition temperature : No data available
- Thermal decomposition : No data available
- Lower explosion limit : 3,0 %(V)
- Upper explosion limit : 18,6 %(V)
- Explosive properties : Not explosive  
In use, may form flammable/explosive vapour-air mixture.
- Flammability : solid / gaseous: Extremely flammable aerosol.
- Oxidizing properties : No data available
- Auto-ignition temperature : not auto-flammable

---

**SAFETY DATA SHEET**

according to Regulation (EC) No. 1907/2006

**0892152501 - Fire Rated Gun Foam**

Version 3.0

Revision Date 30.06.2015

Print Date 02.07.2015

GB / EN

Date of last issue:

19.12.2014

Date of first issue:

24.05.2013

---

Burning number : No data available  
Molecular weight : No data available  
pH : No data available  
Melting point/range : Not applicable  
Boiling point/boiling range : Not applicable  
Vapour pressure : No data available  
Density : No data available  
Bulk density : No data available  
Water solubility : insoluble

Partition coefficient: n-octanol/water : No data available  
Solubility in other solvents : No data available  
Viscosity, dynamic : No data available  
Viscosity, kinematic : No data available  
Flow time : No data available  
Impact sensitivity : No data available  
Relative vapour density : No data available  
Surface tension : No data available  
Evaporation rate : No data available  
Minimum ignition energy : No data available  
Acid number : No data available  
Refraction index : No data available  
Miscibility in water : No data available  
Solvent separation test : No data available

**9.2 Other information**

None known.

---

**SECTION 10: Stability and reactivity****10.1 Reactivity**

No data available

**10.2 Chemical stability**

The product is chemically stable.

**10.3 Possibility of hazardous reactions**

Stability : No decomposition if stored and applied as directed.

Vapours may form explosive mixtures with air. Evolution of CO<sub>2</sub> in closed containers causes overpressure and produces a risk of bursting. If the temperature rises there is danger of the vessels bursting due to the high vapor pressure. Mixture reacts slowly with water resulting in evolution of CO<sub>2</sub>.

**10.4 Conditions to avoid**

---

**SAFETY DATA SHEET**

according to Regulation (EC) No. 1907/2006

**0892152501 - Fire Rated Gun Foam**

Version 3.0

Revision Date 30.06.2015

Print Date 02.07.2015

GB / EN

Date of last issue:

19.12.2014

Date of first issue:

24.05.2013

---

Heat, flames and sparks.

**10.5 Incompatible materials**

Materials to avoid : Water

**10.6 Hazardous decomposition products**

Hazardous decomposition products : Build-up of dangerous/toxic fumes possible in cases of fire/high temperature.

---

**SECTION 11: Toxicological information****11.1 Information on toxicological effects****Acute toxicity**

Acute oral toxicity : Acute toxicity estimate : > 2.000 mg/kg  
Method: Calculation method

Acute inhalation toxicity : Acute toxicity estimate : 3 mg/l  
Test atmosphere: dust/mist  
Exposure time: 4 h  
Method: Calculation method

Acute dermal toxicity:

Diphenylmethanediisocyanate, isomeres and homologues : LD50 Rabbit: > 2.000 mg/kg

Reaction mass of tris(2-chloropropyl) phosphate and tris(2-chloro-1-methylethyl) phosphate and Phosphoric acid, bis (2-chloro-1-methylethyl) 2-chloropropyl ester and Phosphoric acid, 2-chloro-1-methylethyl bis(2-chloropropyl) ester : LD50 Rat: > 2.000 mg/kg

2,2-dimethylpropan-1-ol, tribromo derivative : LD50 Rat, male and female: > 2.000 mg/kg  
Method: OECD Test Guideline 402

Acute toxicity (other routes of administration):

No data available

---

---

**SAFETY DATA SHEET**

according to Regulation (EC) No. 1907/2006

**0892152501 - Fire Rated Gun Foam**

Version 3.0

Revision Date 30.06.2015

Print Date 02.07.2015

GB / EN

Date of last issue:

19.12.2014

Date of first issue:

24.05.2013

---

**Skin corrosion/irritation**

Diphenylmethanediisocyanate, isomeres and homologues : Species: Rabbit  
Skin irritation

Reaction mass of tris(2-chloropropyl) phosphate and tris(2-chloro-1-methylethyl) phosphate and Phosphoric acid, bis (2-chloro-1-methylethyl) 2-chloropropyl ester and Phosphoric acid, 2-chloro-1-methylethyl bis(2-chloropropyl) ester : Species: Rabbit  
No skin irritation

2,2-dimethylpropan-1-ol, tribromo derivative : Species: Rabbit  
No skin irritation  
Method: OECD Test Guideline 404

**Serious eye damage/eye irritation**

Diphenylmethanediisocyanate, isomeres and homologues : Irritation to eyes, reversing within 7 days

Reaction mass of tris(2-chloropropyl) phosphate and tris(2-chloro-1-methylethyl) phosphate and Phosphoric acid, bis (2-chloro-1-methylethyl) 2-chloropropyl ester and Phosphoric acid, 2-chloro-1-methylethyl bis(2-chloropropyl) ester : Species: Rabbit  
No eye irritation

2,2-dimethylpropan-1-ol, tribromo derivative : Species: Rabbit  
Irritation to eyes, reversing within 21 days  
Method: OECD Test Guideline 405

**Respiratory or skin sensitisation**

Sensitisation : May cause sensitisation by inhalation and skin contact.

**Germ cell mutagenicity**Genotoxicity in vitro:

Diphenylmethanediisocyanate, isomeres and homologues : Type: Ames test  
Result: negative

---

**SAFETY DATA SHEET**

according to Regulation (EC) No. 1907/2006

**0892152501 - Fire Rated Gun Foam**

Version 3.0

Revision Date 30.06.2015

Print Date 02.07.2015

GB / EN

Date of last issue:

19.12.2014

Date of first issue:

24.05.2013

---

2,2-dimethylpropan-1-ol, tribromo derivative : Type: Ames test  
Test species: Salmonella typhimurium with and without metabolic activation  
Result: negative  
Method: OECD Test Guideline 471

Genotoxicity in vivo:

Diphenylmethanediisocyanate, isomeres and homologues : Type: Micronucleus test  
Test species: Rat  
Application Route: inhalation (dust/mist/fume)  
Result: negative  
Method: OECD Test Guideline 474

2,2-dimethylpropan-1-ol, tribromo derivative : Type: Micronucleus test  
Test species: Mouse  
Application Route: Oral  
Result: negative  
Method: OECD Test Guideline 474

**Carcinogenicity**

Diphenylmethanediisocyanate, isomeres and homologues : Species: Rat  
Application Route: inhalation (dust/mist/fume)  
Exposure time: 2

## Remarks

Diphenylmethanediisocyanate, isomeres and homologues : Carcinogenicity:  
Limited evidence of carcinogenicity in animal studies

**Reproductive toxicity**

No data available

**Teratogenicity**

No data available

**STOT - single exposure**

Diphenylmethanediisocyanate, isomeres and homologues : May cause respiratory irritation.

**STOT - repeated exposure**

Diphenylmethanediisocyanate, isomeres and homologues : NOAEL: Rat: 1,4 mg/m<sup>3</sup>  
Application Route: inhalation (dust/mist/fume)  
Exposure time: 13 w

---

**SAFETY DATA SHEET**

according to Regulation (EC) No. 1907/2006

**0892152501 - Fire Rated Gun Foam**

Version 3.0

Revision Date 30.06.2015

Print Date 02.07.2015

GB / EN

Date of last issue:

19.12.2014

Date of first issue:

24.05.2013

---

Diphenylmethanediisocyanate,  
isomeres and homologues

: Exposure routes: inhalation (dust/mist/fume)  
Target Organs: Respiratory system  
Shown to produce significant health effects in animals at concentrations of >0.02 to 0.2 mg/l/6h/d.

**Aspiration hazard**Aspiration toxicity

No data available

**Neurological effects**

No data available

**Toxicology Assessment**Toxicology, Metabolism, Distribution

No data available

Acute effects

No data available

**Further information**

: Persons allergic to isocyanates, and particularly those suffering from asthma or other respiratory conditions, should not work with isocyanates.

---

**SECTION 12: Ecological information****12.1 Toxicity**Toxicity to fish

Diphenylmethanediisocyanate,  
isomeres and homologues

: LC50 (Danio rerio (zebra fish)): > 1.000 mg/l  
Exposure time: 96 h

Reaction mass of tris(2-chloropropyl) phosphate and tris(2-chloro-1-methylethyl) phosphate and Phosphoric acid, bis (2-chloro-1-methylethyl) 2-chloropropyl ester and Phosphoric acid, 2-chloro-1-methylethyl bis(2-chloropropyl) ester

: LC50 (Danio rerio (zebra fish)): 56,2 mg/l  
Exposure time: 96 h

---

**SAFETY DATA SHEET**

according to Regulation (EC) No. 1907/2006

**0892152501 - Fire Rated Gun Foam**

Version 3.0

Revision Date 30.06.2015

Print Date 02.07.2015

GB / EN

Date of last issue:

19.12.2014

Date of first issue:

24.05.2013

---

dimethyl ether : LC50 (Poecilia reticulata (guppy)):  $\geq 4,1$  mg/l  
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates

Reaction mass of tris(2-chloropropyl) phosphate and tris(2-chloro-1-methylethyl) phosphate and Phosphoric acid, bis (2-chloro-1-methylethyl) 2-chloropropyl ester and Phosphoric acid, 2-chloro-1-methylethyl bis(2-chloropropyl) ester : EC50 (Daphnia magna (Water flea)): 131 mg/l  
Exposure time: 48 h

dimethyl ether : EC50 (Daphnia magna (Water flea)):  $> 4,4$  mg/l  
Exposure time: 48 h

Toxicity to algae

Diphenylmethanediisocyanate, isomeres and homologues : ErC50 (Desmodesmus subspicatus (green algae)):  $> 1.640$  mg/l  
Exposure time: 72 h

Reaction mass of tris(2-chloropropyl) phosphate and tris(2-chloro-1-methylethyl) phosphate and Phosphoric acid, bis (2-chloro-1-methylethyl) 2-chloropropyl ester and Phosphoric acid, 2-chloro-1-methylethyl bis(2-chloropropyl) ester : NOEC (Pseudokirchneriella subcapitata (green algae)): 13 mg/l  
Exposure time: 72 h  
Method: OECD Test Guideline 201

ErC50 (Pseudokirchneriella subcapitata (microalgae)): 82 mg/l  
Exposure time: 72 h  
Method: OECD Test Guideline 201

2,2-dimethylpropan-1-ol, tribromo derivative : NOEC (Pseudokirchneriella subcapitata (algae)): 2,2 mg/l  
Exposure time: 72 h  
Method: OECD Test Guideline 201

EC50 (Pseudokirchneriella subcapitata (algae)):  $> 100$  mg/l  
Exposure time: 72 h  
Method: OECD Test Guideline 201

dimethyl ether : EC50 : 154,917 mg/l  
Exposure time: 96 h  
Note: Calculation

---

**SAFETY DATA SHEET**

according to Regulation (EC) No. 1907/2006

**0892152501 - Fire Rated Gun Foam**

Version 3.0

Revision Date 30.06.2015

Print Date 02.07.2015

GB / EN

Date of last issue:

19.12.2014

Date of first issue:

24.05.2013

---

Toxicity to bacteria

Reaction mass of tris(2-chloropropyl) phosphate and tris(2-chloro-1-methylethyl) phosphate and Phosphoric acid, bis (2-chloro-1-methylethyl) 2-chloropropyl ester and Phosphoric acid, 2-chloro-1-methylethyl bis(2-chloropropyl) ester : EC50 : 784 mg/l  
Exposure time: 3 h

2,2-dimethylpropan-1-ol, tribromo derivative : EC50 : ca. 400 mg/l  
Exposure time: 30 min  
Method: OECD Test Guideline 209

Toxicity to fish (Chronic toxicity)

2,2-dimethylpropan-1-ol, tribromo derivative : NOEC: 5,6 mg/l  
Exposure time: 14 d  
Species: Cyprinus carpio (Carp)  
Method: OECD Test Guideline 204

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)

Diphenylmethanediisocyanate, isomeres and homologues : NOEC: > 10 mg/l  
Exposure time: 21 d  
Species: Daphnia magna (Water flea)

Reaction mass of tris(2-chloropropyl) phosphate and tris(2-chloro-1-methylethyl) phosphate and Phosphoric acid, bis (2-chloro-1-methylethyl) 2-chloropropyl ester and Phosphoric acid, 2-chloro-1-methylethyl bis(2-chloropropyl) ester : NOEC: 32 mg/l  
Exposure time: 21 d  
Species: Daphnia magna (Water flea)

**12.2 Persistence and degradability**Biodegradability

Diphenylmethanediisocyanate, isomeres and homologues : Result: Not readily biodegradable.  
Biodegradation: 0 %



---

**SAFETY DATA SHEET**

according to Regulation (EC) No. 1907/2006

**0892152501 - Fire Rated Gun Foam**

Version 3.0

Revision Date 30.06.2015

Print Date 02.07.2015

GB / EN

Date of last issue:

19.12.2014

Date of first issue:

24.05.2013

---

Exposure time: 28 d

Reaction mass of tris(2-chloropropyl) phosphate and tris(2-chloro-1-methylethyl) phosphate and Phosphoric acid, bis (2-chloro-1-methylethyl) 2-chloropropyl ester and Phosphoric acid, 2-chloro-1-methylethyl bis(2-chloropropyl) ester

: Result: Not readily biodegradable.

2,2-dimethylpropan-1-ol, tribromo derivative

: Result: Not rapidly biodegradable  
Biodegradation: 2,5 %  
Exposure time: 28 d  
Method: OECD Test Guideline 310

**12.3 Bioaccumulative potential**Bioaccumulation

Reaction mass of tris(2-chloropropyl) phosphate and tris(2-chloro-1-methylethyl) phosphate and Phosphoric acid, bis (2-chloro-1-methylethyl) 2-chloropropyl ester and Phosphoric acid, 2-chloro-1-methylethyl bis(2-chloropropyl) ester

: Species: Cyprinus carpio (Carp)  
Exposure time: 42 d  
Bioconcentration factor (BCF): 0,8 - < 14

**12.4 Mobility in soil**

No data available

**12.5 Results of PBT and vPvB assessment**

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

**12.6 Other adverse effects**Additional ecological information

: The product should not be allowed to enter drains, water courses or the soil.

---

**SECTION 13: Disposal considerations****13.1 Waste treatment methods**

---

**SAFETY DATA SHEET**

according to Regulation (EC) No. 1907/2006

**0892152501 - Fire Rated Gun Foam**

Version 3.0

Revision Date 30.06.2015

Print Date 02.07.2015

GB / EN

Date of last issue:

19.12.2014

Date of first issue:

24.05.2013

---

Advice on disposal and packaging : Disposal:  
In accordance with local and national regulations.  
Waste codes should be assigned by the user based on the application for which the product was used.

The following Waste Codes are only suggestions:

Waste Code (EWC) : Waste Key (unused product):  
160505, gases in pressure containers other than those mentioned in  
16 05 04

Waste key (used product):  
160505, gases in pressure containers other than those mentioned in  
16 05 04

Disposal of uncleaned packaging : Waste key (uncleaned packaging):  
150104, metallic packaging

Note: Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not burn, or use a cutting torch on, the empty drum. Please ensure aerosol cans are sprayed completely empty (including propellant) Containers that have not been emptied in compliance with regulations are regarded as hazardous waste. Dispose of as unused product.

---

**SECTION 14: Transport information****14.1 UN number**

ADR : 1950  
RID : 1950  
IMDG : 1950  
IATA : 1950

**14.2 Proper shipping name**

ADR : AEROSOLS  
RID : AEROSOLS  
IMDG : AEROSOLS  
IATA : AEROSOLS, FLAMMABLE

**14.3 Transport hazard class(es)**

ADR : 2  
RID : 2  
IMDG : 2.1  
IATA : 2.1

**14.4 Packing group**

ADR

---

**SAFETY DATA SHEET**

according to Regulation (EC) No. 1907/2006

**0892152501 - Fire Rated Gun Foam**

Version 3.0

Revision Date 30.06.2015

Print Date 02.07.2015

GB / EN

Date of last issue:

19.12.2014

Date of first issue:

24.05.2013

---

Classification Code : 5F  
Labels : 2.1  
Limited quantity : 1,00 L  
Tunnel restriction code : (D)

**RID**

Classification Code : 5F  
Hazard Identification Number : 23  
Labels : 2.1  
Limited quantity : 1,00 L

**IMDG**

Labels : 2.1  
EmS Number : F-D, S-U

**IATA**

Packing instruction (cargo aircraft) : 203  
Packing instruction (passenger aircraft) : 203  
Packing instruction (LQ) : Y203  
Labels : 2.1

**14.5 Environmental hazards****ADR**

Environmentally hazardous : no

**RID**

Environmentally hazardous : no

**IMDG**

Marine pollutant : no

**IATA**

Environmentally hazardous : no

**14.6 Special precautions for user**

see chapter: 6, 7 and 8

**14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

Not applicable for product as supplied.

---

**SECTION 15: Regulatory information****15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

---

**SAFETY DATA SHEET**

according to Regulation (EC) No. 1907/2006

**0892152501 - Fire Rated Gun Foam**

Version 3.0

Revision Date 30.06.2015

Print Date 02.07.2015

GB / EN

Date of last issue:

19.12.2014

Date of first issue:

24.05.2013

---

VOC : Directive 2010/75/EU of 24 November 2010 on industrial emissions (integrated pollution prevention and control)  
16,9 %  
VOC content less water: 179,5 g/l

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances. : Update: Quantity 1 Quantity 2

FLAMMABLE AEROSOLS 150 t 500 t

Update:  
Liquefied extremely flammable gases (including LPG) and natural gas 50 t 200 t

Seveso II - Directive 2003/105/EC amending Council Directive 96/82/EC on the control of major-accident hazards involving dangerous substances : Update:  
  
Extremely flammable 10 t 50 t

National legislation

Other regulations : Take note of Dir 92/85/EEC on the safety and health at work of pregnant workers.  
Take note of Dir 94/33/EC on the protection of young people at work.

Further information : Ensure a continuous supply of fresh air during and after operation.  
Persons who suffer from allergies or who have a chronic disposition to respiratory illness must not be required to work with this material.  
Reserved for industrial and professional use.

**15.2 Chemical Safety Assessment**

No data available

---

**SECTION 16: Other information****Full text of R-phrases referred to under sections 2 and 3**

---

**SAFETY DATA SHEET**

according to Regulation (EC) No. 1907/2006

**0892152501 - Fire Rated Gun Foam**

Version 3.0

Revision Date 30.06.2015

Print Date 02.07.2015

GB / EN

Date of last issue:

19.12.2014

Date of first issue:

24.05.2013

---

R12	Extremely flammable.
R20	Harmful by inhalation.
R22	Harmful if swallowed.
R36	Irritating to eyes.
R36/37/38	Irritating to eyes, respiratory system and skin.
R40	Limited evidence of a carcinogenic effect.
R42/43	May cause sensitisation by inhalation and skin contact.
R48/20	Harmful: danger of serious damage to health by prolonged exposure through inhalation.

**Full text of H-Statements referred to under sections 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.
H373	May cause damage to organs through prolonged or repeated exposure.
H412	Harmful to aquatic life with long lasting effects.

**Other information**

53+54	Substances that can cause occupational asthma (also known as asthmagens and respiratory sensitisers) can induce a state of specific airway hyper-responsiveness via an immunological, irritant or other mechanism. Once the airways have become hyper-responsive, further exposure to the substance, sometimes even to tiny quantities, may cause respiratory symptoms. These symptoms can range in severity from a runny nose to asthma. Not all workers who are exposed to a sensitiser will become hyper-responsive and it is impossible to identify in advance those who are likely to become hyper-responsive. 54 Substances that can cause occupational asthma should be distinguished from substances which may trigger the symptoms of asthma in people with pre-existing airway hyper-responsiveness, but which do not include the disease themselves. The latter substances are not classified asthmagens or respiratory sensitisers.
55	Wherever it is reasonably practicable, exposure to substances that can cause occupational asthma should be prevented. Where this is not possible, the primary aim is to apply adequate standards of control to prevent workers from becoming hyper-responsive. For substances that can cause occupational asthma, COSHH requires that exposure be reduced as low as is reasonably practicable. Activities giving rise to short-term peak concentrations should receive particular attention when risk management is being considered. Health surveillance is appropriate for all employees exposed or liable to be exposed to a substance which may cause occupational asthma and there should be appropriate consultation with an occupational health professional over the degree of risk and level of surveillance.
56	The 'Sen' notation in the list of WELs has been assigned only to those substances which

---

**SAFETY DATA SHEET**

according to Regulation (EC) No. 1907/2006

**0892152501 - Fire Rated Gun Foam**

Version 3.0

Revision Date 30.06.2015

Print Date 02.07.2015

GB / EN

Date of last issue:

19.12.2014

Date of first issue:

24.05.2013

---

Sen

may cause occupational asthma.

Capable of causing occupational asthma. The identified substances are those which: - are assigned the risk phrase 'R42: May cause sensitisation by inhalation'; or 'R42/43: May cause sensitisation by inhalation and skin contact' or - are listed in section C of HSE publication 'Asthmagen? Critical assessments of the evidence for agents implicated in occupational asthma' as updated from time to time, or any other substance which the risk assessment has shown to be a potential cause of occupational asthma.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

---

Prepared by : SAP Business Compliance Services GmbH  
Birlenbacher Str. 19  
D-57078 Siegen  
Germany  
Telephone: +49-(0)271-88072-0

Ref.: WGB100000496

---