

# SAFETY DATA SHEET



ARBOSHIELD PRO B1 FR FOAM GUN GRADE

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

### 1.1 Product identifier

**Product name** : ARBOSHIELD PRO B1 FR FOAM GUN GRADE  
**Product description** : Not available.  
**Other means of identification** : Not available.

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

Identified uses	
Not available.	
Uses advised against	Reason
For professional use only.	

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

Adshead Ratcliffe & Co. Ltd.  
Derby Road, Belper  
Derbyshire.  
DE56 1WJ  
+44 (0)1773 826661

**e-mail address of person responsible for this SDS** : SDSQueries@carlisleccm.com

### 1.4 Emergency telephone number

#### National advisory body/Poison Center

**Telephone number** : National Poisons Information Service (NPIS)  
Tel: 0344 892 0111 (for healthcare professionals only)  
Website: <http://www.npis.org/>  
Members of Public in England, Scotland and Wales can contact NHS 111/NHS 24 by dialling 111. In Northern Ireland contact your local GP.

#### Supplier

**Telephone number** : +44 (0)1773 826661  
(Office hours: 8.30 - 17.00)

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

**Product definition** : Mixture

#### Classification according to UK CLP/GHS

Aerosol 1, H222, H229  
Acute Tox. 4, H302  
Acute Tox. 4, H332  
Eye Irrit. 2, H319  
Resp. Sens. 1, H334  
Skin Sens. 1, H317  
Carc. 2, H351  
STOT SE 3, H335  
STOT RE 2, H373

The product is classified as hazardous according to UK CLP Regulation SI 2019/720 as amended.  
See Section 16 for the full text of the H statements declared above.

## SECTION 2: Hazards identification

See Section 11 for more detailed information on health effects and symptoms.

### 2.2 Label elements

#### Hazard pictograms



#### Signal word

: Danger

#### Hazard statements

: H222, H229 - Extremely flammable aerosol. Pressurized container: may burst if heated.  
 H302 + H332 - Harmful if swallowed or if inhaled.  
 H315 - Causes skin irritation.  
 H317 - May cause an allergic skin reaction.  
 H319 - Causes serious eye irritation.  
 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

##### Prevention

: P280 - Wear protective gloves, protective clothing and eye or face protection.  
 P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
 P211 - Do not spray on an open flame or other ignition source.  
 P271 - Use only outdoors or in a well-ventilated area.  
 P251 - Pressurized container: Do not pierce or burn, even after use.

##### Response

: P304 + P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
 P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

##### Storage

: P410 + P412 - Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.

##### Disposal

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

#### Supplemental label elements

: Contains isocyanates. May produce an allergic reaction.

#### Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles

: Not applicable.

#### Special packaging requirements

##### Containers to be fitted with child-resistant fastenings

: Not applicable.

##### Tactile warning of danger

: Not applicable.

### 2.3 Other hazards

#### Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII

: This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

#### Other hazards which do not result in classification

: None known.

**SECTION 3: Composition/information on ingredients****3.2 Mixtures** : Mixture

Product/ingredient name	Identifiers	%	Classification	Type
diphenylmethane-diisocyanate, isomers and homologues	REACH #: 01-2119457024-46 CAS: 9016-87-9	≥25 - ≤50	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	[1] [2]
reaction products of phosphoryl trichloride and 2-methyloxirane	REACH #: 01-2119486772-26 CAS: 1244733-77-4	≥10 - ≤25	Acute Tox. 4, H302 Aquatic Chronic 3, H412	[1]
dimethyl ether	REACH #: 01-2119472128-37 EC: 204-065-8 CAS: 115-10-6 Index: 603-019-00-8	≤10	Flam. Gas 1A, H220 Press. Gas (Comp.), H280	[2]
triethyl phosphate	EC: 201-114-5 CAS: 78-40-0 Index: 015-013-00-7	≤3	Acute Tox. 4, H302 Eye Irrit. 2, H319	[1]
			<b>See Section 16 for the full text of the H statements declared above.</b>	

Type

[1] Substance classified with a health or environmental hazard

[2] Substance with a workplace exposure limit

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs, vPvBs or Substances of equivalent concern, or have been assigned a workplace exposure limit and hence require reporting in this section.

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

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

- Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In the event of any complaints or symptoms, avoid further exposure.
- Skin contact** : Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention. If necessary, call a poison center or physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get

## SECTION 4: First aid measures

medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

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

#### Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:  
 pain or irritation  
 watering  
 redness
- Inhalation** : Adverse symptoms may include the following:  
 respiratory tract irritation  
 coughing  
 wheezing and breathing difficulties  
 asthma
- Skin contact** : Adverse symptoms may include the following:  
 irritation  
 redness
- Ingestion** : No specific data.

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

- Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- Specific treatments** : No specific treatment.

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

- Suitable extinguishing media** : Use an extinguishing agent suitable for the surrounding fire.
- Unsuitable extinguishing media** : None known.

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

- Hazards from the substance or mixture** : Extremely flammable aerosol. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Gas may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back, causing fire or explosion. Bursting aerosol containers may be propelled from a fire at high speed.
- Hazardous combustion products** : Decomposition products may include the following materials:  
 carbon dioxide  
 carbon monoxide  
 phosphorus oxides

### 5.3 Advice for firefighters

- Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

**SECTION 5: Firefighting measures**

- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to British standard BS EN 469 will provide a basic level of protection for chemical incidents.

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

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. In the case of aerosols being ruptured, care should be taken due to the rapid escape of the pressurized contents and propellant. If a large number of containers are ruptured, treat as a bulk material spillage according to the instructions in the clean-up section. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Do not breathe dust or mist. Put on appropriate personal protective equipment.
- For emergency responders** : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

- 6.2 Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

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

- Small spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Absorb with an inert material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
- Large spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations.

- 6.4 Reference to other sections** : See Section 1 for emergency contact information.  
See Section 8 for information on appropriate personal protective equipment.  
See Section 13 for additional waste treatment information.

**SECTION 7: Handling and storage**

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

**7.1 Precautions for safe handling**

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems or asthma, allergies or chronic or recurrent respiratory disease should not be employed in any process in which this product is used. Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C. Do not pierce or burn, even after use. Avoid exposure - obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Avoid breathing gas. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Empty containers retain product residue and can be hazardous.

## SECTION 7: Handling and storage

**Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

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

Store in accordance with local regulations. Store away from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

### Seveso Directive - Reporting thresholds

#### Danger criteria

Category	Notification and MAPP threshold	Safety report threshold
P3a	150 tonnes	500 tonnes

### 7.3 Specific end use(s)

**Recommendations** : Not available.

**Industrial sector specific solutions** : Not available.

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

#### Occupational exposure limits

Product/ingredient name	Exposure limit values
diphenylmethane-diisocyanate, isomers and homologues	<b>EH40/2005 WELs (United Kingdom (UK), 1/2020) [isocyanates, all, except methyl isocyanate]</b> Inhalation sensitizer. STEL 15 minutes: 0.07 mg/m <sup>3</sup> (as -NCO). TWA 8 hours: 0.02 mg/m <sup>3</sup> (as -NCO).
dimethyl ether	<b>EH40/2005 WELs (United Kingdom (UK), 1/2020)</b> STEL 15 minutes: 958 mg/m <sup>3</sup> . STEL 15 minutes: 500 ppm. TWA 8 hours: 400 ppm. TWA 8 hours: 766 mg/m <sup>3</sup> .

#### Biological exposure indices

Product/ingredient name	Exposure indices
diphenylmethane-diisocyanate, isomers and homologues	<b>EH40/2005 BMGVs (United Kingdom (UK), 1/2020) [Isocyanates]</b> BMGV: 1 µmol/mol creatinine, diamine [in urine]. Sampling time: post task.

**Recommended monitoring procedures** : Reference should be made to monitoring standards, such as the following: British Standard BS EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) British Standard BS EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) British Standard BS EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

#### DNELs/DMELs

Product/ingredient name	Result

## SECTION 8: Exposure controls/personal protection

reaction products of phosphoryl trichloride and 2-methyloxirane

**DNEL - General population - Long term - Oral**  
0.52 mg/kg bw/day  
Effects: Systemic

**DNEL - General population - Long term - Dermal**  
1.04 mg/kg bw/day  
Effects: Systemic

**DNEL - General population - Long term - Inhalation**  
1.45 mg/m<sup>3</sup>  
Effects: Systemic

**DNEL - General population - Short term - Oral**  
2 mg/kg bw/day  
Effects: Systemic

**DNEL - Workers - Long term - Dermal**  
2.91 mg/kg bw/day  
Effects: Systemic

**DNEL - General population - Short term - Inhalation**  
5.6 mg/m<sup>3</sup>  
Effects: Systemic

**DNEL - Workers - Long term - Inhalation**  
8.2 mg/m<sup>3</sup>  
Effects: Systemic

**DNEL - Workers - Short term - Inhalation**  
22.6 mg/m<sup>3</sup>  
Effects: Systemic

dimethyl ether

**DNEL - General population - Long term - Inhalation**  
471 mg/m<sup>3</sup>  
Effects: Systemic

**DNEL - Workers - Long term - Inhalation**  
1894 mg/m<sup>3</sup>  
Effects: Systemic

triethyl phosphate

**DNEL - General population - Short term - Oral**  
5 mg/kg bw/day  
Effects: Systemic

**DNEL - General population - Long term - Oral**  
1 mg/kg bw/day  
Effects: Systemic

**DNEL - General population - Long term - Dermal**  
1 mg/kg bw/day  
Effects: Systemic

**DNEL - General population - Long term - Inhalation**  
1.74 mg/m<sup>3</sup>  
Effects: Systemic

**DNEL - Workers - Long term - Dermal**  
2 mg/kg bw/day  
Effects: Systemic

**DNEL - Workers - Long term - Inhalation**  
9.9 mg/m<sup>3</sup>  
Effects: Systemic

## SECTION 8: Exposure controls/personal protection

### PNECs

#### **Product/ingredient name**

reaction products of phosphoryl trichloride and 2-methyloxirane

#### **Result**

##### **Fresh water**

0.32 mg/l

##### **Fresh water**

0.51 mg/l

##### **Marine water**

0.032 mg/l

##### **Sewage Treatment Plant**

19.1 mg/l

##### **Fresh water sediment**

11.5 mg/kg dwt

##### **Marine water sediment**

1.15 mg/kg dwt

##### **Soil**

0.34 mg/kg dwt

##### **Secondary Poisoning**

11.6 mg/kg

### **8.2 Exposure controls**

#### **Appropriate engineering controls**

- : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

#### **Individual protection measures**

##### **Hygiene measures**

- : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations are close to the workstation location.

##### **Eye/face protection**

- : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.

##### **Skin protection**

##### **Hand protection**

- : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

**SECTION 8: Exposure controls/personal protection**

- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves. Refer to British Standard BS EN 1149 for further information on material and design requirements and test methods.
- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.
- Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

**SECTION 9: Physical and chemical properties**

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

**9.1 Information on basic physical and chemical properties****Appearance**

- Physical state** : Liquid.
- Color** : Pink.
- Odor** : Not available.
- Odor threshold** : Not available.
- Melting point/freezing point** : Not available.
- Initial boiling point and boiling range** : Not available.
- Flammability (solid, gas)** : Not available.
- Upper/lower flammability or explosive limits** : Not available.
- Flash point** : Not applicable.
- Auto-ignition temperature** : 410°C (770°F)
- Decomposition temperature** : Not available.
- pH** : Not applicable.
- Viscosity** : Dynamic (room temperature): Not available.  
Kinematic (room temperature): Not available.  
Kinematic (40°C): Not available.
- Solubility in water** : Not available.
- Partition coefficient: n-octanol/ water** : Not applicable.
- Vapor pressure** : 300 kPa (2250.18 mm Hg) [50°C (122°F)]
- Evaporation rate** : Not available.
- Relative density** : Not available.
- Density** : 1.1 g/cm<sup>3</sup>
- Vapor density** : Not available.
- Explosive properties** : Not available.
- Oxidizing properties** : Not available.
- Particle characteristics**
- Median particle size** : Not applicable.

## SECTION 9: Physical and chemical properties

### 9.2 Other information

**Heat of combustion** : 17.68 kJ/g

#### Aerosol product

**Type of aerosol** : Spray

## SECTION 10: Stability and reactivity

**10.1 Reactivity** : No specific test data related to reactivity available for this product or its ingredients.

**10.2 Chemical stability** : The product is stable.

**10.3 Possibility of hazardous reactions** : Under normal conditions of storage and use, hazardous reactions will not occur.

**10.4 Conditions to avoid** : Avoid all possible sources of ignition (spark or flame).

**10.5 Incompatible materials** : No specific data.

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

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

#### Acute toxicity

##### **Product/ingredient name**

diphenylmethane-diisocyanate, isomers and homologues

reaction products of phosphoryl trichloride and 2-methyloxirane

dimethyl ether

triethyl phosphate

##### **Result**

##### **Rat - Oral - LD50**

49 g/kg

Toxic effects: Behavioral - Somnolence (general depressed activity) Gastrointestinal - Hypermotility, diarrhea Changes in Chemistry or Temperature - Body temperature decrease

##### **Rabbit - Dermal - LD50**

>9400 mg/kg

##### **Rat - Inhalation - LC50 Vapor**

490 mg/m<sup>3</sup> [4 hours]

Toxic effects: Eye - Other Lung, Thorax, or Respiration - Respiratory depression Blood - Hemorrhage

##### **Rat - Inhalation - LC50 Dusts and mists**

>7 mg/l [4 hours]

##### **Rat - Inhalation - LC50 Vapor**

309 g/m<sup>3</sup> [4 hours]

##### **Rat - Inhalation - LC50 Gas.**

164000 ppm [4 hours]

Toxic effects: Behavioral - Ataxia Behavioral - Coma

##### **Rat - Oral - LD50**

1165 mg/kg

Toxic effects: Brain and Coverings - Recordings from specific areas of CNS Behavioral - Somnolence (general depressed activity) Behavioral - Ataxia

**Conclusion/Summary [Product]** : Not available.

#### Acute toxicity estimates

ARBOSHIELD PRO B1 FR FOAM GUN GRADE

**SECTION 11: Toxicological information**

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapors) (mg/l)	Inhalation (dusts and mists) (mg/l)
ARBOSHIELD PRO B1 FR FOAM GUN GRADE	500	N/A	N/A	11	N/A
diphenylmethane-diisocyanate, isomers and homologues	49000	N/A	N/A	11	N/A
reaction products of phosphoryl trichloride and 2-methyloxirane	500	N/A	N/A	N/A	N/A
dimethyl ether	N/A	N/A	164000	309	N/A
triethyl phosphate	1165	N/A	N/A	N/A	N/A

**Skin corrosion/irritation**

Not available.

**Conclusion/Summary [Product]** : Not available.**Serious eye damage/eye irritation****Product/ingredient name**

diphenylmethane-diisocyanate, isomers and homologues

triethyl phosphate

**Result****Rabbit - Eyes - Mild irritant**Amount/concentration applied: 100 mg**Rabbit - Eyes - Moderate irritant**Amount/concentration applied: 100 mg**Conclusion/Summary [Product]** : Not available.**Respiratory corrosion/irritation**

Not available.

**Conclusion/Summary [Product]** : Not available.**Respiratory or skin sensitization**

Not available.

**Skin****Conclusion/Summary [Product]** : Not available.**Respiratory****Conclusion/Summary [Product]** : Not available.**Germ cell mutagenicity**

Not available.

**Conclusion/Summary [Product]** : Not available.**Carcinogenicity**

Not available.

**Conclusion/Summary [Product]** : Not available.

## SECTION 11: Toxicological information

### Reproductive toxicity

Not available.

**Conclusion/Summary [Product]** : Not available.

### Specific target organ toxicity (single exposure)

<b>Product/ingredient name</b>	<b>Result</b>
ARBOSHIELD PRO B1 FR FOAM GUN GRADE	STOT SE 3, H335 (Respiratory tract irritation)
diphenylmethane-diisocyanate, isomers and homologues	STOT SE 3, H335 (Respiratory tract irritation)

### Specific target organ toxicity (repeated exposure)

<b>Product/ingredient name</b>	<b>Result</b>
ARBOSHIELD PRO B1 FR FOAM GUN GRADE	STOT RE 2, H373
diphenylmethane-diisocyanate, isomers and homologues	STOT RE 2, H373

### Aspiration hazard

Not available.

### Information on the likely routes of exposure

Not available.

### Potential acute health effects

<b>Eye contact</b>	: Causes serious eye irritation.
<b>Inhalation</b>	: Harmful if inhaled. May cause respiratory irritation. May cause allergy or asthma symptoms or breathing difficulties if inhaled.
<b>Skin contact</b>	: May cause an allergic skin reaction.
<b>Ingestion</b>	: Harmful if swallowed.

### Symptoms related to the physical, chemical and toxicological characteristics

<b>Eye contact</b>	: Adverse symptoms may include the following: pain or irritation watering redness
<b>Inhalation</b>	: Adverse symptoms may include the following: respiratory tract irritation coughing wheezing and breathing difficulties asthma
<b>Skin contact</b>	: Adverse symptoms may include the following: irritation redness
<b>Ingestion</b>	: No specific data.

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

#### **Short term exposure**

<b>Potential immediate effects</b>	: Not available.
<b>Potential delayed effects</b>	: Not available.

#### **Long term exposure**

<b>Potential immediate effects</b>	: Not available.
<b>Potential delayed effects</b>	: Not available.

**SECTION 11: Toxicological information****Potential chronic health effects**

Not available.

**Conclusion/Summary [Product]** : Not available.**General** : May cause damage to organs through prolonged or repeated exposure. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.**Carcinogenicity** : Suspected of causing cancer. Risk of cancer depends on duration and level of exposure.**Mutagenicity** : No known significant effects or critical hazards.**Reproductive toxicity** : No known significant effects or critical hazards.**Other information**

Not available.

**SECTION 12: Ecological information****12.1 Toxicity****Product/ingredient name**

triethyl phosphate

**Result****Acute - EC50 - Fresh water**

OECD

Fish - Zebra danio - *Danio rerio* - Embryo

Age: &lt;2 hours

1240 mg/l [96 hours]

Effect: Histology

**Conclusion/Summary [Product]** : Not available.**12.2 Persistence and degradability**

Not available.

**Conclusion/Summary [Product]** : Not available.**12.3 Bioaccumulative potential**

Product/ingredient name	LogP <sub>ow</sub>	BCF	Potential
dimethyl ether	0.07	-	Low
triethyl phosphate	1.11	<1.3 [OECD 305 C]	Low

**12.4 Mobility in soil****Soil/Water partition coefficient** : Not available.**Mobility** : Not available.**12.5 Results of PBT and vPvB assessment**

Product/ingredient name	PBT	P	B	T	vPvB	vP	vB
diphenylmethane-diisocyanate, isomers and homologues	N/A	N/A	N/A	Yes	N/A	N/A	N/A
reaction products of phosphoryl trichloride and 2-methyloxirane	No	N/A	N/A	No	N/A	N/A	N/A
dimethyl ether	No	N/A	N/A	No	N/A	N/A	N/A
triethyl phosphate	No	N/A	No	No	No	N/A	No

## SECTION 12: Ecological information

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

## SECTION 13: Disposal considerations

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

### 13.1 Waste treatment methods

#### Product

**Methods of disposal** : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.





**Hazardous waste** : The classification of the product may meet the criteria for a hazardous waste.

#### Packaging

**Methods of disposal** : The generation of waste should be avoided or minimized wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

**Special precautions** : This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Do not puncture or incinerate container.

## SECTION 14: Transport information

	ADR/RID	ADN	IMDG	IATA
<b>14.1 UN number</b>	UN1950	UN1950	UN1950	UN1950
<b>14.2 UN proper shipping name</b>	(Isobutane, dimethyl ether)	(Isobutane, dimethyl ether)	(Isobutane, dimethyl ether)	(Isobutane, dimethyl ether)
<b>14.3 Transport hazard class(es)</b>	2 	2 	2.1 	2.1 
<b>14.4 Packing group</b>	-	-	-	-
<b>14.5 Environmental hazards</b>	No.	No.	No.	No.

### Additional information

**ADR/RID** : **Tunnel code** (D)

**14.6 Special precautions for user** : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

**14.7 Transport in bulk according to IMO instruments** : Not available.

## SECTION 15: Regulatory information

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

#### UK (GB)/REACH

##### Annex XIV - List of substances subject to authorization

###### Annex XIV

None of the components are listed.

###### Substances of very high concern

None of the components are listed.

###### Ozone depleting substances

Not listed.

###### Prior Informed Consent (PIC)

Not listed.

###### Persistent Organic Pollutants

Not listed.

##### Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles

Product/ingredient name	%	Designation [Usage]
ARBOSHIELD PRO B1 FR FOAM GUN GRADE	≥90	3

**Labeling** : Not applicable.

**Aerosol dispensers** :



Extremely flammable

#### Seveso Directive

This product is controlled under the Seveso Directive.

#### Danger criteria

Category
P3a

#### EU regulations

**Industrial emissions (integrated pollution prevention and control) - Air** : Not listed

**Industrial emissions (integrated pollution prevention and control) - Water** : Not listed

#### International regulations

##### Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

#### Montreal Protocol

Not listed.

## SECTION 15: Regulatory information

### Stockholm Convention on Persistent Organic Pollutants

Not listed.

### Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

### UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

### Inventory list

<b>Australia</b>	: Not determined.
<b>Canada</b>	: Not determined.
<b>Chile</b>	: Not determined.
<b>China</b>	: Not determined.
<b>Colombia</b>	: Not determined.
<b>Eurasian Economic Union</b>	: <b>Russian Federation inventory</b> : All components are listed or exempted.
<b>Japan</b>	: <b>Japan inventory (CSCL)</b> : Not determined. <b>Japan inventory (ISHL)</b> : Not determined.
<b>New Zealand</b>	: All components are listed or exempted.
<b>Philippines</b>	: Not determined.
<b>Republic of Korea</b>	: Not determined.
<b>Taiwan</b>	: Not determined.
<b>Thailand</b>	: Not determined.
<b>Turkey</b>	: Not determined.
<b>United States</b>	: Not determined.
<b>Viet Nam</b>	: All components are listed or exempted.
<b>15.2 Chemical Safety Assessment</b>	: This product contains substances for which Chemical Safety Assessments are still required.

## SECTION 16: Other information

📌 Indicates information that has changed from previously issued version.

<b>Abbreviations and acronyms</b>	: ATE = Acute Toxicity Estimate GB CLP = UK CLP (EC No 1272/2008) on the Classification, Labelling and Packaging of Substances and Mixtures as amended by (EU Exit) Regulations 2019 No. 720 and amendments DMEL = Derived Minimal Effect Level DNEL = Derived No Effect Level EUH statement = GB CLP-specific Hazard statement N/A = Not available PBT = Persistent, Bioaccumulative and Toxic PNEC = Predicted No Effect Concentration RRN = REACH Registration Number SGG = Segregation Group vPvB = Very Persistent and Very Bioaccumulative
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### Procedure used to derive the classification

Classification	Justification
Aerosol 1, H222, H229	Expert judgment
Acute Tox. 4, H302	Expert judgment
Acute Tox. 4, H332	Expert judgment
Eye Irrit. 2, H319	Expert judgment
Resp. Sens. 1, H334	Expert judgment
Skin Sens. 1, H317	Expert judgment
Carc. 2, H351	Expert judgment
STOT SE 3, H335	Expert judgment
STOT RE 2, H373	Expert judgment

### Full text of abbreviated H statements

ARBOSHIELD PRO B1 FR FOAM GUN GRADE

**SECTION 16: Other information**

H220	Extremely flammable gas.
H222, H229	Extremely flammable aerosol. Pressurized 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.

**Full text of classifications**

Acute Tox. 4	ACUTE TOXICITY - Category 4
Aerosol 1	AEROSOLS - Category 1
Aquatic Chronic 3	AQUATIC HAZARD (LONG-TERM) - Category 3
Carc. 2	CARCINOGENICITY - Category 2
Eye Irrit. 2	SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2
Flam. Gas 1A	FLAMMABLE GASES - Category 1A
Press. Gas (Comp.)	GASES UNDER PRESSURE - Compressed gas
Resp. Sens. 1	RESPIRATORY SENSITIZATION - Category 1
Skin Irrit. 2	SKIN CORROSION/IRRITATION - Category 2
Skin Sens. 1	SKIN SENSITIZATION - Category 1
STOT RE 2	SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2
STOT SE 3	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) - Category 3

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To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.