

SAFETY DATA SHEET

ARBO

ARBOFOAM G

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

1.1 Product identifier

Product name : ARBOFOAM G
Product description : Sealant. Insulator. Fixative. Filler.
Other means of identification : Not available.

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

| Identified uses | |
|---------------------------------------|--------|
| Sealant. Insulator. Fixative. Filler. | |
| Uses advised against | Reason |
| For professional users 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 Centre

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, H332
 Skin Irrit. 2, H315
 Eye Irrit. 2, H319
 Resp. Sens. 1, H334
 Skin Sens. 1, H317
 Carc. 2, H351
 Lact., H362
 STOT SE 3, H335
 STOT RE 2, H373
 Aquatic Chronic 4, H413

The product is classified as hazardous according to UK CLP Regulation SI 2019/720 as amended.

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SECTION 2: Hazards identification

See Section 16 for the full text of the H statements declared above.

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. 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.
 H362 - May cause harm to breast-fed children.
 H373 - May cause damage to organs through prolonged or repeated exposure if inhaled.
 H413 - May cause long lasting harmful effects to aquatic life.

Precautionary statements

Prevention

: P201 - Obtain special instructions before use.
 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.
 P263 - Avoid contact during pregnancy and while nursing.
 P251 - Do not pierce or burn, even after use.

Response

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

Storage

: P405 - Store locked up.
 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

: Not applicable

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

: As from 24 August 2023 adequate training is required before industrial or professional use.

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 contains substances that are assessed to be a PBT or a vPvB, refer to Section 3.2.

Other hazards which do not result in classification

: None known.

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

: Mixture

| Product/ingredient name | Identifiers | % | Classification | Type |
|---|---|-----------|---|----------------|
| Polymethylene polyphenyl isocyanate | 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] |
| alkanes, C14-17, chloro | REACH #: 01-2119519269-33 EC: 287-477-0 CAS: 85535-85-9 Index: 602-095-00-X | ≥10 - ≤25 | Lact., H362 Aquatic Acute 1, H400 (M=100) Aquatic Chronic 1, H410 (M=10) EUH066 | [1] [3] [4] |
| dimethyl ether | REACH #: 01-2119472128-37 EC: 204-065-8 CAS: 115-10-6 Index: 603-019-00-8 | ≥10 - ≤25 | Flam. Gas 1A, H220 Press. Gas (Comp.), H280 | [2] |
| reaction products of phosphoryl trichloride and 2-methyloxirane | REACH #: 01-2119486772-26 CAS: 1244733-77-4 | ≥1 - <5 | Acute Tox. 4, H302 Aquatic Chronic 3, H412 See Section 16 for the full text of the H statements declared above. | [1] |

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.

Type

[1] Substance classified with a health or environmental hazard

[2] Substance with a workplace exposure limit

[3] Substance meets the criteria for PBT

[4] Substance meets the criteria for vPvB

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 case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours. 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.

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SECTION 4: First aid measures

- 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. Never give anything by mouth to an unconscious person. 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.
- 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** : Adverse symptoms may include the following:
 nausea or vomiting

4.3 Indication of any immediate medical attention and special treatment needed

- Notes to physician** : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- 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. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.
- Hazardous combustion products** : Decomposition products may include the following materials:
 carbon dioxide
 carbon monoxide
 nitrogen oxides
 phosphorus oxides
 halogenated compounds

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SECTION 5: Firefighting measures

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.
- 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.

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 pressurised 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 spilt material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
- For emergency responders** : If specialised 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 spilt 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). Water polluting material. May be harmful to the environment if released in large quantities.

6.3 Methods and material 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. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry 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 the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. 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 (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilt product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

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

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SECTION 7: Handling and storage

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitisation problems or asthma, allergies or chronic or recurrent respiratory disease should not be employed in any process in which this product is used. Pressurised container: protect from sunlight and do not expose to temperature exceeding 50°C. Do not pierce or burn, even after use. Avoid exposure - obtain special instructions before use. Avoid contact during pregnancy or while nursing. 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 vapour or mist. Do not ingest. Avoid breathing gas. Avoid release to the environment. 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.
- 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 tonne | 500 tonne |

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 |
|-------------------------------------|--|
| Polymethylene polyphenyl isocyanate | EH40/2005 WELs (United Kingdom (UK), 1/2020). [isocyanates, all, except methyl isocyanate as -NCO] Inhalation sensitiser. STEL: 0.07 mg/m ³ , (as -NCO) 15 minutes. TWA: 0.02 mg/m ³ , (as -NCO) 8 hours. |
| dimethyl ether | EH40/2005 WELs (United Kingdom (UK), 1/2020). STEL: 958 mg/m ³ 15 minutes. STEL: 500 ppm 15 minutes. TWA: 400 ppm 8 hours. TWA: 766 mg/m ³ 8 hours. |

Biological exposure indices

| Product/ingredient name | Exposure indices |
|-------------------------------------|--|
| Polymethylene polyphenyl isocyanate | EH40/2005 BMGVs (United Kingdom (UK), 1/2020) [Isocyanates] BMGV: 1 µmol/mol creatinine, diamine [in urine]. Sampling time: post task. |

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SECTION 8: Exposure controls/personal protection

Recommended monitoring procedures : Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

DNELs/DMELs

| Product/ingredient name | Type | Exposure | Value | Population | Effects |
|---|------|-----------------------|------------------------|--------------------|----------|
| alkanes, C14-17, chloro | DNEL | Long term Oral | 0.58 mg/kg bw/day | General population | Systemic |
| | DNEL | Long term Inhalation | 2 mg/m ³ | General population | Systemic |
| | DNEL | Long term Inhalation | 6.7 mg/m ³ | Workers | Systemic |
| | DNEL | Long term Dermal | 28.75 mg/kg bw/day | General population | Systemic |
| | DNEL | Long term Dermal | 47.9 mg/kg bw/day | Workers | Systemic |
| dimethyl ether | DNEL | Long term Inhalation | 471 mg/m ³ | General population | Systemic |
| | DNEL | Long term Inhalation | 1894 mg/m ³ | Workers | Systemic |
| reaction products of phosphoryl trichloride and 2-methyloxirane | DNEL | Long term Oral | 0.52 mg/kg bw/day | General population | Systemic |
| | DNEL | Long term Dermal | 1.04 mg/kg bw/day | General population | Systemic |
| | DNEL | Long term Inhalation | 1.45 mg/m ³ | General population | Systemic |
| | DNEL | Short term Oral | 2 mg/kg bw/day | General population | Systemic |
| | DNEL | Long term Dermal | 2.91 mg/kg bw/day | Workers | Systemic |
| | DNEL | Short term Inhalation | 5.6 mg/m ³ | General population | Systemic |
| | DNEL | Long term Inhalation | 8.2 mg/m ³ | Workers | Systemic |
| | DNEL | Short term Inhalation | 22.6 mg/m ³ | Workers | Systemic |

PNECs

| Product/ingredient name | Compartment Detail | Value | Method Detail | |
|-------------------------|---|----------------|---------------|---|
| alkanes, C14-17, chloro | Fresh water | 1 µg/l | - | |
| | Marine water | 0.2 µg/l | - | |
| | Sewage Treatment Plant | 80 mg/l | - | |
| | Fresh water sediment | 13 mg/kg dwt | - | |
| | Marine water sediment | 2.6 mg/kg dwt | - | |
| | Soil | 11.9 mg/kg dwt | - | |
| | Secondary Poisoning | 10 mg/kg | - | |
| | reaction products of phosphoryl trichloride and 2-methyloxirane | 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

SECTION 8: Exposure controls/personal protection

- 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, vapour 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 and safety showers 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.
- 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.
- 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. [Aerosol.]
- Colour** : Cream
- Odour** : Characteristic.
- Odour 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.

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SECTION 9: Physical and chemical properties

- Flash point** : Not applicable.
Auto-ignition temperature : Not available.
Decomposition temperature : Not available.
pH : Not available.
Viscosity : Not available.
Solubility in water : Not available.
Partition coefficient: n-octanol/ water : Not applicable.
Vapour pressure :

| Ingredient name | Vapour Pressure at 20°C | | | Vapour pressure at 50°C | | |
|-------------------------|-------------------------|-------|--------|-------------------------|-----|--------|
| | mm Hg | kPa | Method | mm Hg | kPa | Method |
| propane | 6300.51 | 840 | | | | |
| dimethyl ether | 3850 | 513.3 | | | | |
| isobutane | 2280.19 | 304 | | | | |
| alkanes, C14-17, chloro | 0 | 0 | | | | |

- Relative density** : Not available.
Vapour density : Not available.
Explosive properties : Not available.
Oxidising properties : Not available.
Particle characteristics
Median particle size : Not applicable.

9.2 Other information

- Heat of combustion** : 25.21 kJ/g
Aerosol product
Type of aerosol : Foam

SECTION 10: Stability and reactivity

- 10.1 Reactivity** : Extremely flammable aerosol. Pressurised container: may burst if heated.
10.2 Chemical stability : The product is stable.
10.3 Possibility of hazardous reactions : May polymerise.
Reactive with acids, alkalis.
10.4 Conditions to avoid : Avoid all possible sources of ignition (spark or flame).
10.5 Incompatible materials : strong acids
strong alkalis
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**

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SECTION 11: Toxicological information

| Product/ingredient name | Result | Species | Dose | Exposure |
|---|---------------------------------|---------|----------------------|----------|
| Polymethylene polyphenyl isocyanate | LD50 Dermal | Rabbit | >9400 mg/kg | - |
| dimethyl ether | LD50 Oral | Rat | 49 g/kg | - |
| | LC50 Inhalation Gas. | Rat | 164000 ppm | 4 hours |
| reaction products of phosphoryl trichloride and 2-methyloxirane | LC50 Inhalation Vapour | Rat | 309 g/m ³ | 4 hours |
| | LC50 Inhalation Dusts and mists | Rat | >7 mg/l | 4 hours |

Conclusion/Summary : Acute Tox. 4 Inhalation**Acute toxicity estimates**

| Product/ingredient name | Oral (mg/kg) | Dermal (mg/kg) | Inhalation (gases) (ppm) | Inhalation (vapours) (mg/l) | Inhalation (dusts and mists) (mg/l) |
|---|--------------|----------------|--------------------------|-----------------------------|-------------------------------------|
| ARBOFOAM G | 16694.5 | N/A | N/A | N/A | 3.0 |
| Polymethylene polyphenyl isocyanate | 49000 | N/A | N/A | N/A | 1.5 |
| dimethyl ether | N/A | N/A | 164000 | 309 | N/A |
| reaction products of phosphoryl trichloride and 2-methyloxirane | 500 | N/A | N/A | N/A | N/A |

Irritation/Corrosion

| Product/ingredient name | Result | Species | Score | Exposure | Observation |
|-------------------------------------|----------------------|---------|-------|----------|-------------|
| Polymethylene polyphenyl isocyanate | Eyes - Mild irritant | Rabbit | - | 100 mg | - |

Conclusion/Summary

Skin : Skin Irrit. 2
Eyes : Eye Irrit. 2
Respiratory : STOT SE 3 respiratory tract irritation

Sensitisation**Conclusion/Summary**

Skin : Skin Sens. 1
Respiratory : Resp. Sens. 1

Mutagenicity**Conclusion/Summary** : Not available.**Carcinogenicity****Conclusion/Summary** : Carc. 2**Reproductive toxicity****Conclusion/Summary** : Lact. May cause harm to breast-fed children.**Teratogenicity****Conclusion/Summary** : Based on available data, the classification criteria are not met.**Specific target organ toxicity (single exposure)**

| Product/ingredient name | Category | Route of exposure | Target organs |
|-------------------------------------|------------|-------------------|------------------------------|
| Polymethylene polyphenyl isocyanate | Category 3 | - | Respiratory tract irritation |

Specific target organ toxicity (repeated exposure)

| Product/ingredient name | Category | Route of exposure | Target organs |
|-------------------------------------|------------|-------------------|---------------|
| Polymethylene polyphenyl isocyanate | Category 2 | - | - |

Aspiration hazard

Not available.

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SECTION 11: Toxicological information

Information on likely routes of exposure : Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.

Potential acute health effects

- Eye contact** : Causes serious eye irritation.
- Inhalation** : Harmful if inhaled. May cause respiratory irritation. May cause allergy or asthma symptoms or breathing difficulties if inhaled.
- Skin contact** : Causes skin irritation. May cause an allergic skin reaction.
- Ingestion** : No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

- 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** : Adverse symptoms may include the following:
nausea or vomiting

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Short term exposure

- Potential immediate effects** : Not available.
- Potential delayed effects** : Not available.

Long term exposure

- Potential immediate effects** : Not available.
- Potential delayed effects** : Not available.

Potential chronic health effects

Not available.

- Conclusion/Summary** : 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** : May cause harm to breast-fed children.

Other information : Not available.

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SECTION 12: Ecological information**12.1 Toxicity**

| Product/ingredient name | Result | Species | Exposure |
|--|--------------------------------------|--|----------|
| ARBOFOAM G Polymethylene polyphenyl isocyanate alkanes, C14-17, chloro | Acute LC50 >100 mg/l Fresh water | Fish | 96 hours |
| | Acute EC50 >1640 mg/l Fresh water | Algae - <i>Scenedesmus subspicatus</i> | 72 hours |
| | Acute EC50 0.0059 mg/l Fresh water | Daphnia - <i>Daphnia magna</i> | 48 hours |
| | Chronic NOEC 0.0087 mg/l Fresh water | Daphnia - <i>Daphnia magna</i> | 21 days |

Conclusion/Summary : Aquatic Chronic 4**12.2 Persistence and degradability****Conclusion/Summary** : Not available.

| Product/ingredient name | Aquatic half-life | Photolysis | Biodegradability |
|-------------------------|-------------------|------------|------------------|
| alkanes, C14-17, chloro | - | - | Not readily |

12.3 Bioaccumulative potential

| Product/ingredient name | LogP _{ow} | BCF | Potential |
|---|--------------------|----------------|-----------|
| alkanes, C14-17, chloro dimethyl ether | 4.7 to 8.3 | 10500 to 14600 | High |
| | 0.07 | - | Low |

12.4 Mobility in soil**Soil/water partition coefficient (K_{oc})** : Not available.**Mobility** : Not available.**12.5 Results of PBT and vPvB assessment**

| Product/ingredient name | PBT | P | B | T | vPvB | vP | vB |
|---|-----|-----|-----|-----|------|-----|-----|
| alkanes, C14-17, chloro | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| dimethyl ether | No | N/A | N/A | No | 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 |

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 minimised 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 : Yes.**Packaging**





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

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SECTION 13: Disposal considerations

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 |
|---------------------------------|--|--|---|--|
| 14.1 UN number | UN1950 | UN1950 | UN1950 | UN1950 |
| 14.2 UN proper shipping name | AEROSOLS | AEROSOLS | AEROSOLS | Aerosols, flammable |
| 14.3 Transport hazard class(es) | 2  | 2  | 2.1  | 2.1  |
| 14.4 Packing group | - | - | - | - |
| 14.5 Environmental hazards | No. | No. | No. | No. |

Additional information

ADR/RID : **Limited quantity** 1 L
Special provisions 190, 327, 625, 344
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 authorisation

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

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SECTION 15: Regulatory information

| Product/ingredient name | % | Designation [Usage] |
|---|-------------|-----------------------------------|
| ARBOFOAM G 4,4'-methylenediphenyl diisocyanate | ≥90 ≤0.1 | 3 56 [Consumer products] 74 |

Labelling : As from 24 August 2023 adequate training is required before industrial or professional use.

Aerosol dispensers :

**UK
CA**



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.

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

Australia : Not determined.
Canada : Not determined.
China : Not determined.
Eurasian Economic Union : **Russian Federation inventory**: Not determined.
Japan : **Japan inventory (CSCL)**: Not determined.
Japan inventory (ISHL): Not determined.
New Zealand : Not determined.
Philippines : Not determined.

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SECTION 15: Regulatory information

| | |
|--|--|
| Republic of Korea | : Not determined. |
| Taiwan | : Not determined. |
| Thailand | : Not determined. |
| Turkey | : Not determined. |
| United States | : Not determined. |
| Viet Nam | : Not determined. |
| 15.2 Chemical safety assessment | : 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.

Abbreviations and acronyms :

- 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

Procedure used to derive the classification

| Classification | Justification |
|--|--|
| Aerosol 1, H222, H229 Acute Tox. 4, H332 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Resp. Sens. 1, H334 Skin Sens. 1, H317 Carc. 2, H351 Lact., H362 STOT SE 3, H335 STOT RE 2, H373 Aquatic Chronic 4, H413 | On basis of test data Calculation method Calculation method Calculation method Calculation method Calculation method Calculation method Calculation method Calculation method Calculation method Calculation method Bridging principle "Substantially similar mixtures" |

Full text of abbreviated H statements

| | |
|------------|--|
| H220 | Extremely flammable gas. |
| H222, H229 | Extremely flammable aerosol. 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. |
| H362 | May cause harm to breast-fed children. |
| H373 | May cause damage to organs through prolonged or repeated exposure. |
| H400 | Very toxic to aquatic life. |
| H410 | Very toxic to aquatic life with long lasting effects. |
| H412 | Harmful to aquatic life with long lasting effects. |
| EUH066 | Repeated exposure may cause skin dryness or cracking. |

Full text of classifications

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SECTION 16: Other information

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

| | |
|--|--------------------------|
| Date of printing | : 29 August 2023 |
| Date of issue/ Date of revision | : 29 August 2023 |
| Date of previous issue | : No previous validation |
| Version | : 1 |

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