

B1 Fill & Fix Expanding PU Foam (Gun) - Safety Data Sheet

According to 1907/2006/EC, Article 31

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

1.1 Product identifier

Product Name: B1 Fill & Fix Expanding PU Foam (Gun)
 Product Code: 247760
 UFI: 0954-6QTH-D00D-R0Q0

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

Assembly foam

Application of the substance / the mixture Construction chemicals

1.3 Details of the supplier of the safety data sheet

Supplier:	T.I Midwood & Co. Ltd TIMCO House Green Lane Wardle Nantwich CW5 6BJ	T.I Midwood & Co. Ltd Aviemore House Hill Street Monahan Ireland
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Emergency Help Line: 01865 407333 (24 hour service)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008



GHS02 flame

Aerosol 1 H222-H229 Extremely flammable aerosol. Pressurised container: May burst if heated.



GHS08 health hazard

Resp. Sens. 1 H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Carc. 2 H351 Suspected of causing cancer.

STOT RE 2 H373 May cause damage to organs through prolonged or repeated exposure.



GHS07

Acute Tox. 4 H332 Harmful if inhaled.

Skin Irrit. 2 H315 Causes skin irritation.

Eye Irrit. 2 H319 Causes serious eye irritation.

Skin Sens. 1 H317 May cause an allergic skin reaction.

STOT SE 3 H335 May cause respiratory irritation.

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008

The product is classified and labelled according to the CLP regulation.

Hazard pictograms



GHS02



GHS07



GHS08

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· **Signal word** Danger

· **Hazard-determining components of labelling:**

diphenylmethanediisocyanate, isomers and homologues

· **Hazard statements**

H222 Extremely flammable aerosol.

H229 Pressurised container: May burst if heated.

H332 Harmful if inhaled.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

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.

· **Precautionary statements**

P102 Keep out of reach of children.

P260 Do not breathe gas.

P271 Use only outdoors or in a well-ventilated area.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P302+P352 IF ON SKIN: Wash with plenty of water.

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.

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

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

· **Additional information:**

Persons already sensitised to diisocyanates may develop allergic reactions when using this product.

Persons suffering from asthma, eczema or skin problems should avoid contact, including dermal contact, with this product.

This product should not be used under conditions of poor ventilation unless a protective mask with an appropriate gas filter (i.e. type A1 according to standard EN 14387) is used.

Do not pierce or burn, even after use.

Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.

Do not spray on an open flame or other ignition source.

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

EUH204 Contains isocyanates. May produce an allergic reaction.

· **2.3 Other hazards**

· **Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

SECTION 3: Composition/information on ingredients

· **3.2 Chemical characterisation: Mixtures**

· **Description:** Mixture of substances listed below with nonhazardous additions.

· **Dangerous components:**

CAS: 9016-87-9 EC number: 618-498-9	diphenylmethanediisocyanate, isomers and homologues ⚠ Resp. Sens. 1, H334; Carc. 2, H351; STOT RE 2, H373; ⚠ Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317; STOT SE 3, H335	30 - 60%
CAS: 1244733-77-4 EC number: 911-815-4 Reg.nr.: 01-2119486772-26-xxxx	tris(2-chlorisopropyl)-phosphate ⚠ Acute Tox. 4, H302	< 25%

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CAS: 75-28-5 EINECS: 200-857-2 Reg.nr.: 01-2119485395-27-xxxx	isobutane ⚠ Flam. Gas 1, H220; Press. Gas (Comp.), H280	< 15%
CAS: 74-98-6 EINECS: 200-827-9 Reg.nr.: 01-21194869440-21-xxxx	propane ⚠ Flam. Gas 1, H220; Press. Gas (Comp.), H280	< 15%
CAS: 106-97-8 EINECS: 203-448-7 Reg.nr.: 01-2119474691-31-xxxx	butane ⚠ Flam. Gas 1, H220; Press. Gas (Comp.), H280	< 15%
CAS: 86675-46-9 Reg.nr.: 01-2119972940-30-xxxx	halogenated polyetherpolyol ⚠ Acute Tox. 4, H302	< 15%
CAS: 115-10-6 EINECS: 204-065-8 Reg.nr.: 01-2119472128-37-0001	dimethyl ether ⚠ Flam. Gas 1, H220; Press. Gas (Comp.), H280	< 10%

· **Additional information:** For the wording of the listed hazard phrases refer to section 16.

SECTION 4: First aid measures

· 4.1 Description of first aid measures

· **After inhalation:**

Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.

· **After skin contact:**

Remove uncured foam using a piece of cloth and an unaggressive solvent, e.g. ethanol. Wash your hands and the cleaned skin surface using soapy water. Cured foam can be removed mechanically with the use of a brush, soap and plenty of water. Use protective cream after skin surface has been cleaned.

· **After eye contact:**

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

· **After swallowing:**

Rinse out mouth and then drink plenty of water.

Do not induce vomiting; call for medical help immediately.

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

No further relevant information available.

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

No further relevant information available.

SECTION 5: Firefighting measures

· 5.1 Extinguishing media

· **Suitable extinguishing agents:**

Carbon dioxide.

Fire-extinguishing powder.

Foam.

Water spray.

Use fire extinguishing methods suitable to surrounding conditions.

· **For safety reasons unsuitable extinguishing agents:** Water with full jet.

· 5.2 Special hazards arising from the substance or mixture

Can form explosive gas-air mixtures.

Formation of toxic gases is possible during heating or in case of fire.

· 5.3 Advice for firefighters

· **Protective equipment:**

Wear self-contained respiratory protective device.

Wear fully protective suit.

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- **Additional information** Cool endangered receptacles with water spray.

SECTION 6: Accidental release measures

· 6.1 Personal precautions, protective equipment and emergency procedures

- Keep away from ignition sources.
- Wear protective clothing.
- Do not breathe gas / fumes / vapour / spray.
- Ensure adequate ventilation.
- Wear protective equipment. Keep unprotected persons away.

· 6.2 Environmental precautions:

- Do not allow to enter sewers / surface or ground water.
- Inform respective authorities in case of seepage into water course or sewage system.

· 6.3 Methods and material for containment and cleaning up:

- Uncured foam adheres easily, hence it should be removed with caution. Remove instantly using a piece of cloth and solvents, e.g. acetone, alcohol. Remove cured foam mechanically.
- Dispose contaminated material as waste according to item 13.
- Ensure adequate ventilation.

· 6.4 Reference to other sections See Section 13 for disposal information.

SECTION 7: Handling and storage

· 7.1 Precautions for safe handling

- Ensure good ventilation / exhaustion at the workplace.
- Open and handle receptacle with care.
- Do not pierce or burn even after use. Use only as directed on the label.
- Do not mix with any other chemical products.

· Information about fire - and explosion protection:

- Do not spray onto a naked flame or any incandescent material.
- Keep ignition sources away - Do not smoke.
- Protect against electrostatic charges.
- Pressurised container: protect from sunlight and do not expose to temperatures exceeding 50°C, i.e. electric lights. Do not pierce or burn, even after use.

· 7.2 Conditions for safe storage, including any incompatibilities

· Storage:

· Requirements to be met by storerooms and receptacles:

- Store in a cool location.
- Observe official regulations on storing packagings with pressurised containers.
- This product is subject to regulations governing the storage of highly flammable aerosol products.
- Storage rooms should be equipped with heat and smoke detectors.
- Electrical equipment should be explosion-proof.

· Information about storage in one common storage facility:

- Do not store together with acids.
- Do not store together with alkalis (caustic solutions).
- Store away from oxidising agents.
- Store away from foodstuffs.
- Store away from plastic, rubber, aluminum, light-metals.

· Further information about storage conditions:

- Store in vertical position in closed original containers.
- Store receptacle in a well ventilated area.
- Protect from frost.
- Store at temperature from +5°C to +30°C.
- Store under lock and key and out of the reach of children.
- Keep container tightly sealed.

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Protect from heat and direct sunlight.

· **7.3 Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls/personal protection

· 8.1 Control parameters

· Ingredients with limit values that require monitoring at the workplace:	
CAS: 9016-87-9 diphenylmethanediisocyanate, isomers and homologues	
WEL	Short-term value: 0.07 mg/m ³ Long-term value: 0.02 mg/m ³ Sen; as -NCO
CAS: 115-10-6 dimethyl ether	
WEL	Short-term value: 958 mg/m ³ , 500 ppm Long-term value: 766 mg/m ³ , 400 ppm
CAS: 106-97-8 butane	
WEL	Short-term value: 1810 mg/m ³ , 750 ppm Long-term value: 1450 mg/m ³ , 600 ppm Carc (if more than 0.1% of buta-1.3-diene)
· DNELs	
CAS: 9016-87-9 diphenylmethanediisocyanate, isomers and homologues	
Oral	DNEL 20 mg/kg/day (General population, consumers)
Dermal	DNEL 0.05 mg/kg/day (General population, consumers)
Inhalative	DNEL 0.05 mg/m ³ (General population, consumers) 0.05 mg/m ³ (Workers)
CAS: 115-10-6 dimethyl ether	
Inhalative	DNEL 471 mg/m ³ (General population, consumers) 1894 mg/m ³ (Workers)
CAS: 86675-46-9 halogenated polyetherpolyol	
Oral	DNEL 0.44 mg/kg/day (General population, consumers)
Dermal	DNEL 0.44 mg/kg/day (General population, consumers) 0.87 mg/kg/day (Workers)
Inhalative	DNEL 1.5 mg/m ³ (General population, consumers) 6 mg/m ³ (Workers)
CAS: 1244733-77-4 tris(2-chlorisopropyl)-phosphate	
Oral	DNEL 0.52 mg/kg/day (General population, consumers) 1.04 mg/kg/day (Workers)
Dermal	DNEL 4 mg/kg/day (General population, consumers) 2.08 mg/kg/day (Workers)
Inhalative	DNEL 11.2 mg/m ³ (General population, consumers) 5.82 mg/m ³ (Workers)
· PNECs	
CAS: 9016-87-9 diphenylmethanediisocyanate, isomers and homologues	
(freshwater)	1 mg/l
(sea water)	0.1 mg/l
(soil)	1 mg/kg

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CAS: 86675-46-9 halogenated polyetherpolyol	
(freshwater)	1 mg/l
(sea water)	0.1 mg/l
(freshwater sediments)	37.5 mg/kg
(sea water sediments)	3.75 mg/kg
(soil)	6.92 mg/kg
CAS: 115-10-6 dimethyl ether	
(freshwater)	0.155 mg/l
(sea water)	0.016 mg/l
(freshwater sediments)	0.681 mg/kg
(sea water sediments)	0.069 mg/kg
(soil)	0.045 mg/kg
CAS: 1244733-77-4 tris(2-chlorisopropyl)-phosphate	
(freshwater sediments)	13.4 mg/kg
(sea water sediments)	1.34 mg/kg
(soil)	1.7 mg/kg

· 8.2 Exposure controls

· Personal protective equipment:

· General protective and hygienic measures:

Do not inhale gases / fumes / aerosols.

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

· Respiratory protection:

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

· Protection of hands:



Protective gloves

EN 374

The glove material has to be impermeable and resistant to the product / the substance / the preparation.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation.

· Material of gloves

Polyethylene gloves.

Recommended thickness of the material: ≥ 0.020 mm.

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· Penetration time of glove material

Short-term exposure ≥ 10 min (EN 374)

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

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· Eye protection:



Tightly sealed goggles

EN 166

· Body protection: Protective work clothing.

SECTION 9: Physical and chemical properties

· 9.1 Information on basic physical and chemical properties	
· General Information	
· Appearance:	
· Form:	Aerosol Rapidly curing foam dispensed by gaseous propellant from an aerosol container
· Colour:	Different according to colouring
· Odour:	Characteristic
· pH-value:	-
· Change in condition	
· Melting point/freezing point:	Not determined
· Initial boiling point and boiling range:	Not applicable, as aerosol
· Flash point:	<0 °C (propellant)
· Auto-ignition temperature:	> +350 °C (propellant)
· Explosive properties:	Heating may cause an explosion.
· Explosion limits:	
· Lower:	+/- 1.5 Vol %
· Upper:	+/- 11.0 Vol %
· Vapour pressure:	>500 kPa (in the container) < 1*10 ⁻⁵ mmHg w 25°C (MDI)
· Density at 20 °C:	≤1.3 (PMDI) g/cm ³
· Solubility in / Miscibility with water:	Insoluble Reacts with water
· Partition coefficient: n-octanol/water:	Not determined
· 9.2 Other information	No further relevant information available

SECTION 10: Stability and reactivity

- **10.1 Reactivity** No further relevant information available.
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:**
No decomposition if used and stored according to specifications.
- **10.3 Possibility of hazardous reactions** No dangerous reactions known.

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- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:**
Strongly reacts with water and other substances containing an active hydrogen atom.
- **10.6 Hazardous decomposition products:** No dangerous decomposition products known.

SECTION 11: Toxicological information

· 11.1 Information on toxicological effects

· Acute toxicity

Harmful if inhaled.

· LD/LC50 values relevant for classification:

CAS: 9016-87-9 diphenylmethanediisocyanate, isomers and homologues

Oral LD50 >10000 mg/kg (rat) (OECD401)

Dermal LD50 >9400 mg/kg (rabbit) (OECD402)

CAS: 1244733-77-4 tris(2-chlorisopropyl)-phosphate

Oral LD50 1,017 mg/kg (rat)

Dermal LD50 >2,000 mg/kg (rat)

· Primary irritant effect:

· Skin corrosion/irritation

Causes skin irritation.

· Serious eye damage/irritation

Causes serious eye irritation.

· Respiratory or skin sensitisation

May cause allergy or asthma symptoms or breathing difficulties if inhaled.

May cause an allergic skin reaction.

· Germ cell mutagenicity Based on available data, the classification criteria are not met.

· Carcinogenicity

Suspected of causing cancer.

· Reproductive toxicity Based on available data, the classification criteria are not met.

· STOT-single exposure

May cause respiratory irritation.

· STOT-repeated exposure

May cause damage to organs through prolonged or repeated exposure.

· Aspiration hazard Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

· 12.1 Toxicity

· Aquatic toxicity:

CAS: 1244733-77-4 tris(2-chlorisopropyl)-phosphate

EC50 47 mg/l (algae)

· 12.2 Persistence and degradability Not biodegradable.

· 12.3 Bioaccumulative potential Does not accumulate in organisms.

· 12.4 Mobility in soil No further relevant information available.

· Additional ecological information:

· General notes:

Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water.

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

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- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Other adverse effects** No further relevant information available.

SECTION 13: Disposal considerations

· 13.1 Waste treatment methods

· Recommendation

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

Do not allow to enter surface or ground water.

Dispose of in a safe manner in accordance with local / national regulations.

Assigning a code from the waste catalogue depends on the sector, in which the user operates, as well as on arrangements made between the waste generator and a competent environment protection department.

Substance/mixture as a waste compound brings hazardous properties HP: 3, 4, 5, 6, 7, 13

· European waste catalogue

15 01 11*	metallic packaging containing a hazardous solid porous matrix (for example asbestos), including empty pressure containers
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· Uncleaned packaging:

- **Recommendation:** Disposal must be made according to official regulations.

SECTION 14: Transport information

· 14.1 UN-Number

· **ADR, IMDG, IATA** UN1950

· 14.2 UN proper shipping name

· **ADR, IMDG, IATA** AEROSOLS

· 14.3 Transport hazard class(es)

· ADR



· **Class** 2 5F Gases.

· **Label** 2.1

· IMDG, IATA



· **Class** 2.1

· **Label** 2.1

· 14.5 Environmental hazards:

· **Marine pollutant:** No.

· 14.6 Special precautions for user

Warning: Gases.

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· Danger code (Kemler):	-
· EMS Number:	F-D,S-U
· 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code	Not applicable.
· Transport/Additional information:	
· ADR	
· Limited quantities (LQ)	1L
· Excepted quantities (EQ)	E0
· Transport category	2
· Remarks:	Exemption from ADR provisions by LQ principal (rule 3.4) - Inner packaging, max. 1 liter in capacity; outer packaging – max. gross weight of 30kg. - Inner packaging, max. 1 liter in capacity, based on common ground and covered with shrink film – max. gross weight of 20kg. Tunnel restriction code: D.
· UN "Model Regulation":	UN 1950 AEROSOLS, 2.1

SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Directive 2012/18/EU**
- **Named dangerous substances - ANNEX I** None of the ingredients is listed.
- **Seveso category** P3a FLAMMABLE AEROSOLS
- **Qualifying quantity (tonnes) for the application of lower-tier requirements** 150 t
- **Qualifying quantity (tonnes) for the application of upper-tier requirements** 500 t
- **REGULATION (EC) No 1907/2006 ANNEX XVII** Conditions of restriction: 56
- **Other regulations, limitations and prohibitive regulations**
- **Substances of very high concern (SVHC) according to REACH, Article 57**
None of the ingredients is listed.
- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Relevant phrases**

- H220 Extremely flammable gas.
- 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.

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

· **Recommended restriction of use**

The information stated above is based on current knowledge and applies to the product in the form in which it is used. Data concerning this product is presented in order to fulfill safety requirements and not to guarantee its specific properties.

In cases when application conditions are not subject to manufacturer's control, the responsibility for safe product use and obeying law regulations in particular, lies on the user's side.

Information in the appropriate technical data sheet of product.

· **Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

DNEL: Derived No-Effect Level (REACH)

PNEC: Predicted No-Effect Concentration (REACH)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

SVHC: Substances of Very High Concern

vPvB: very Persistent and very Bioaccumulative

Flam. Gas 1: Flammable gases – Category 1

Aerosol 1: Aerosols – Category 1

Press. Gas (Comp.): Gases under pressure – Compressed gas

Acute Tox. 4: Acute toxicity – Category 4

Skin Irrit. 2: Skin corrosion/irritation – Category 2

Eye Irrit. 2: Serious eye damage/eye irritation – Category 2

Resp. Sens. 1: Respiratory sensitisation – Category 1

Skin Sens. 1: Skin sensitisation – Category 1

Carc. 2: Carcinogenicity – Category 2

STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2