



SAFETY DATA SHEET

Formaldehyde BPR Grade 35.0 / 6.5%

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

1.1. Product identifier

Product name	Formaldehyde BPR Grade 35.0 / 6.5%
REACH registration number	01-2119488953-20-XXXX
CAS number	50-00-0
EC number	200-001-8

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

Identified uses	biocide
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1.3. Details of the supplier of the safety data sheet

Supplier	Synthite Ltd Alyn Works Denbigh Road Mold CH7 1BT 01352 752521 01352 700182
Contact person	tech@synthite.co.uk

1.4. Emergency telephone number

Emergency telephone	01865 407333 (International +44 1865 407333)
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SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (EC 1272/2008)

Physical hazards	Not Classified
Health hazards	Acute Tox. 3 - H301 Acute Tox. 3 - H311 Acute Tox. 2 - H330 Skin Corr. 1B - H314 Skin Sens. 1 - H317 Muta. 2 - H341 Carc. 1B - H350 STOT SE 2 - H371 STOT SE 3 - H335
Environmental hazards	Not Classified

2.2. Label elements

EC number	200-001-8
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Pictogram



Signal word

Danger

Formaldehyde BPR Grade 35.0 / 6.5%

Hazard statements

H301+H311 Toxic if swallowed or in contact with skin.
H330 Fatal if inhaled.
H314 Causes severe skin burns and eye damage.
H317 May cause an allergic skin reaction.
H341 Suspected of causing genetic defects.
H350 May cause cancer.
H371 May cause damage to organs .
H335 May cause respiratory irritation.

Precautionary statements

P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P260 Do not breathe vapour/ spray.
P261 Avoid breathing vapour/ spray.
P264 Wash contaminated skin thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P271 Use only outdoors or in a well-ventilated area.
P272 Contaminated work clothing should not be allowed out of the workplace.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
P284 [In case of inadequate ventilation] wear respiratory protection.
P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor.
P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P302+P352 IF ON SKIN: Wash with plenty of water.
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
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+P311 IF exposed or concerned: Call a POISON CENTER or doctor.
P308+P313 IF exposed or concerned: Get medical advice/ attention.
P312 Call a POISON CENTRE/doctor if you feel unwell.
P320 Specific treatment is urgent (see medical advice on this label).
P321 Specific treatment (see medical advice on this label).
P333+P313 If skin irritation or rash occurs: Get medical advice/ attention.
P361+P364 Take off immediately all contaminated clothing and wash it before reuse.
P362+P364 Take off contaminated clothing and wash it before reuse.
P363 Wash contaminated clothing before reuse.
P403+P233 Store in a well-ventilated place. Keep container tightly closed.
P405 Store locked up.
P501 Dispose of contents/ container in accordance with national regulations.

Contains

formaldehyde, methanol

2.3. Other hazards

Formaldehyde BPR Grade 35.0 / 6.5%

SECTION 3: Composition/information on ingredients

3.2. Mixtures

formaldehyde 34.9 - 35.1%		
CAS number: 50-00-0	EC number: 200-001-8	REACH registration number: 01-2119488953-20-XXXX
Classification Acute Tox. 3 - H301 Acute Tox. 3 - H311 Acute Tox. 2 - H330 Skin Corr. 1B - H314 Skin Sens. 1A - H317 Muta. 2 - H341 Carc. 1B - H350 STOT SE 3 - H335		
methanol 6.5 - 6.9%		
CAS number: 67-56-1	EC number: 200-659-6	REACH registration number: 01-2119433307-44-XXXX
Classification Flam. Liq. 2 - H225 Acute Tox. 3 - H301 Acute Tox. 3 - H311 Acute Tox. 3 - H331 STOT SE 1 - H370		

The full text for all hazard statements is displayed in Section 16.

Formaldehyde BPR Grade 35.0 / 6.5%

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation	Move affected person to fresh air at once. Rinse nose and mouth with water. Get medical attention if any discomfort continues.
Ingestion	Remove affected person from source of contamination. Remove person to fresh air and keep comfortable for breathing. Never give anything by mouth to an unconscious person. Give plenty of water to drink. Do not induce vomiting. Get medical attention immediately.
Skin contact	Remove affected person from source of contamination. Remove contaminated clothing immediately and wash skin with soap and water. Get medical attention if symptoms are severe or persist after washing.
Eye contact	Remove any contact lenses and open eyelids wide apart. Rinse with water. Continue to rinse for at least 15 minutes and get medical attention.
Protection of first aiders	First aid personnel should wear appropriate protective equipment during any rescue.

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

Inhalation	Prolonged or repeated exposure to vapours in high concentrations may cause the following adverse effects: May cause sensitisation or allergic reactions in sensitive individuals.
Ingestion	Prolonged or repeated exposure may cause the following adverse effects: May cause liver and/or renal damage.
Skin contact	This product is corrosive. The product contains a sensitising substance.
Eye contact	This product is corrosive. Prolonged or repeated exposure to vapours in high concentrations may cause the following adverse effects: May cause severe eye irritation.

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

Notes for the doctor	Treat symptomatically. Get medical attention if a large quantity has been ingested.
Specific treatments	No special treatment required.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	Use alcohol-resistant foam, carbon dioxide or dry powder to extinguish. Use dry powder, dry sand or dry earth to extinguish. Water spray, fog or mist.
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.

5.2. Special hazards arising from the substance or mixture

Hazardous combustion products	Thermal decomposition or combustion products may include the following substances: Oxides of carbon. Oxides of nitrogen.
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5.3. Advice for firefighters

Protective actions during firefighting	In case of fire: Evacuate area. No action shall be taken without appropriate training or involving any personal risk. Control run-off water by containing and keeping it out of sewers and watercourses.
Special protective equipment for firefighters	Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

Formaldehyde BPR Grade 35.0 / 6.5%

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions No action shall be taken without appropriate training or involving any personal risk. Evacuate area. Wear protective clothing as described in Section 8 of this safety data sheet.

For non-emergency personnel Evacuate area. Keep upwind to avoid inhalation of gases, vapours, fumes and smoke.

For emergency responders Wear protective clothing as described in Section 8 of this safety data sheet.

6.2. Environmental precautions

Environmental precautions Avoid the spillage or runoff entering drains, sewers or watercourses. Inform the relevant authorities if environmental pollution occurs (sewers, waterways, soil or air).

6.3. Methods and material for containment and cleaning up

Methods for cleaning up Small Spillages: Stop leak if safe to do so. Move containers from spillage area. Do not touch or walk into spilled material. Absorb spillage with sand or other inert absorbent. Large Spillages: Absorb spillage with sand or other inert absorbent. Collect spillage for reclamation or disposal in sealed containers via a licensed waste contractor.

6.4. Reference to other sections

Reference to other sections For personal protection, see Section 8. For waste disposal, see Section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Usage precautions For professional users only. Persons susceptible to allergic reactions should not handle this product. For personal protection, see Section 8.

Advice on general occupational hygiene Persons susceptible to allergic reactions should not handle this product. Do not eat, drink or smoke when using this product. Good personal hygiene procedures should be implemented. Wash at the end of each work shift and before eating, smoking and using the toilet.

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions Store in tightly-closed, original container in a dry, cool and well-ventilated place. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

7.3. Specific end use(s)

Specific end use(s) The identified uses for this product are detailed in Section 1.2.

Formaldehyde BPR Grade 35.0 / 6.5%

SECTION 8: Exposure controls/Personal protection

8.1. Control parameters

Occupational exposure limits

formaldehyde

Long-term exposure limit (8-hour TWA): WEL 2 ppm 2.5 mg/m³

Short-term exposure limit (15-minute): WEL 2 ppm 2.5 mg/m³

methanol

Long-term exposure limit (8-hour TWA): WEL 200 ppm 266 mg/m³

Short-term exposure limit (15-minute): WEL 250 ppm 333 mg/m³

Sk

WEL = Workplace Exposure Limit

Sk = Can be absorbed through the skin.

DNEL

Formaldehyde

Workers - Inhalation; Short term systemic effects: 1 mg/m³

Workers - Inhalation; Long term local effects: 0.5 mg/m³

Workers - Inhalation; Short term local effects: 0.75 mg/m³

Workers - Inhalation; Long term systemic effects: 0.5 mg/m³

Workers - Dermal; Long term systemic effects: 240 mg/kg/day

Workers - Dermal; Long term local effects: 0.037 mg/cm²

Methanol.

Workers - Inhalation; Short term systemic effects: 260 mg/m³

Workers - Inhalation; Short term local effects: 260 mg/m³

Workers - Inhalation; Long term local effects: 260 mg/m³

Workers - Inhalation; Long term systemic effects: 260 mg/m³

Workers - Dermal; Short term systemic effects: 40 mg/kg/day

Workers - Dermal; Long term systemic effects: 40 mg/kg/day

PNEC

Formaldehyde

- Water; 4.7 mg/l

- Fresh water; 0.47 mg/l

- marine water; 0.47 mg/l

- Sediment (Freshwater); 2.44 mg/kg

- Sediment (Marinewater); 2.44 mg/kg

- Soil; 0.21 mg/kg

- STP; 0.19 mg/l

Methanol.

- Water; 1540 mg/l

- Fresh water; 20.8 mg/l

- marine water; 2.08 mg/l

- Soil; 3.18 ug/kg

- STP; 100 mg/l

- Sediment (Freshwater); 77 mg/kg

- Sediment (Marinewater); 7.7 mg/kg

8.2. Exposure controls

Protective equipment



Appropriate engineering controls

As this product contains ingredients with exposure limits, process enclosures, local exhaust ventilation or other engineering controls should be used to keep worker exposure below any statutory or recommended limits, if use generates dust, fumes, gas, vapour or mist.

Formaldehyde BPR Grade 35.0 / 6.5%

Eye/face protection	Wear tight-fitting, chemical splash goggles or face shield.
Hand protection	To protect hands from chemicals, gloves should comply with European Standard EN374. It is recommended that gloves are made of the following material: Butyl rubber. Nitrile rubber. Viton rubber (fluoro rubber). Frequent changes are recommended.
Other skin and body protection	Avoid contact with skin. Wear appropriate clothing to prevent any possibility of liquid contact and repeated or prolonged vapour contact.
Hygiene measures	Good personal hygiene procedures should be implemented. Wash promptly with soap and water if skin becomes contaminated. Promptly remove any clothing that becomes contaminated. Wash at the end of each work shift and before eating, smoking and using the toilet. Do not eat, drink or smoke when using this product. Do not smoke in work area. Provide eyewash station and safety shower.
Respiratory protection	Wear a full facepiece respirator fitted with the following cartridge: Gas filter, type A2. Gas filter, type AX.
Environmental exposure controls	Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. Keep container tightly sealed when not in use. Residues and empty containers should be taken care of as hazardous waste according to local and national provisions.

Formaldehyde BPR Grade 35.0 / 6.5%

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	Liquid.
Colour	Colourless.
Odour	Irritating. Pungent.
Odour threshold	Not determined.
pH	pH (concentrated solution): 2.5 - 5.0
Melting point	-15°C
Initial boiling point and range	96 - 101°C
Flash point	~ 83°C
Evaporation rate	Not determined.
Flammability (solid, gas)	Flammable liquid and vapour.
Upper/lower flammability or explosive limits	Lower flammable/explosive limit: 7% Upper flammable/explosive limit: 73%
Vapour pressure	2.7 mm Hg @ 35°C
Vapour density	Not determined.
Relative density	1.089 - 1.092 @ 25°C
Solubility(ies)	Miscible with water. Soluble in the following materials: Ethanol.
Partition coefficient	Formaldehyde log Kow: 0.35 Methanol. log Pow: -0.77
Auto-ignition temperature	Not determined.
Decomposition Temperature	Not determined.
Viscosity	3 mPa s @ 20°C
Oxidising properties	Does not meet the criteria for classification as oxidising.

9.2. Other information

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity See Section 10.3 (Possibility of hazardous reactions) for further information.

10.2. Chemical stability

Stability Stable at normal ambient temperatures and when used as recommended.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions The following materials may react with the product: Acids. Strong oxidising agents.

10.4. Conditions to avoid

Conditions to avoid Avoid heat, flames and other sources of ignition.

10.5. Incompatible materials

Materials to avoid Avoid contact with the following materials: Acids. Strong oxidising agents.

10.6. Hazardous decomposition products

Formaldehyde BPR Grade 35.0 / 6.5%

Hazardous decomposition products Heating may generate the following products: Oxides of carbon. Oxides of nitrogen.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity - oral

ATE oral (mg/kg) 238.66

Acute toxicity - dermal

ATE dermal (mg/kg) 655.18

Acute toxicity - inhalation

ATE inhalation (gases ppm) 285.71

ATE inhalation (vapours mg/l) 43.48

Toxicological information on ingredients.

formaldehyde

Acute toxicity - oral

Acute toxicity oral (LD₅₀ mg/kg) 640.0

Species Rat

ATE oral (mg/kg) 100.0

Acute toxicity - dermal

Acute toxicity dermal (LD₅₀ mg/kg) 270.0

Species Rabbit

ATE dermal (mg/kg) 300.0

Acute toxicity - inhalation

Acute toxicity inhalation (LC₅₀ gases ppmV) 463.0

Species Rat

ATE inhalation (gases ppm) 100.0

Carcinogenicity

IARC carcinogenicity IARC Group 1 Carcinogenic to humans.

NTP carcinogenicity Known human carcinogen.

methanol

Acute toxicity - oral

Acute toxicity oral (LD₅₀ mg/kg) 1,187.0

Species Rat

ATE oral (mg/kg) 100.0

Formaldehyde BPR Grade 35.0 / 6.5%

Acute toxicity - dermal

Acute toxicity dermal (LD₅₀ 17,100.0
mg/kg)

Species Rabbit

ATE dermal (mg/kg) 300.0

Acute toxicity - inhalation

Acute toxicity inhalation 128.2
(LC₅₀ vapours mg/l)

Species Rat

ATE inhalation (vapours 3.0
mg/l)

Formaldehyde BPR Grade 35.0 / 6.5%

SECTION 12: Ecological information

12.1. Toxicity

Acute aquatic toxicity

Acute toxicity - fish

Formaldehyde
 LC₅₀, 96 hours: 41 mg/l, Brachydanio rerio (Zebra Fish)
 LC₅₀, 96 hours: 24.1 mg/l, Pimephales promelas (Fat-head Minnow)
 LC₅₀, 96 hours: 31.3 mg/l, Freshwater fish
 LC₅₀, 96 hours: 6.7 mg/l, Marinewater fish
 Methanol.
 LC₅₀, 96 hours: 15400 mg/l, Fish, Lepomis macrochirus (Bluegill)
 EC₅₀, 96 hours: 12700 mg/l, Fish

Acute toxicity - aquatic invertebrates

Formaldehyde
 EC₅₀, 48 hours: 29 mg/l, Daphnia magna
 Methanol.
 EC₅₀, 48 hours: 10000 mg/l, Daphnia magna

Acute toxicity - aquatic plants

Formaldehyde
 EC₅₀, 72 hours: 4.89 mg/l, Algae, Desmodesmus subspicatus
 Methanol.
 EC₅₀, 96 hours: 22000 mg/l, Algae, Selenastrum capricornutum

12.2. Persistence and degradability

Persistence and degradability The product is readily biodegradable.

12.3. Bioaccumulative potential

Bioaccumulative potential The product is not bioaccumulating.

Partition coefficient

Formaldehyde log Kow: 0.35 Methanol. log Pow: -0.77

12.4. Mobility in soil

Mobility

Expected to have a low potential for adsorption.

12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment

This product does not contain any substances classified as PBT or vPvB.

12.6. Other adverse effects

SECTION 13: Disposal considerations

13.1. Waste treatment methods

General information

The generation of waste should be minimised or avoided wherever possible. Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority. Disposal of this product, process solutions, residues and by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any local authority requirements.

Disposal methods

Dispose of waste via a licensed waste disposal contractor.

Waste class

Commission Decision 2000/532/EC as amended by Decision 2001/118/EC establishing a list of wastes and hazardous waste pursuant to Council Directive 75/442/EEC on waste and Directive 91/689/EEC on hazardous waste with amendments.

Formaldehyde BPR Grade 35.0 / 6.5%

SECTION 14: Transport information

14.1. UN number

UN No. (ADR/RID)	2209
UN No. (IMDG)	2209
UN No. (ICAO)	2209
UN No. (ADN)	2209

14.2. UN proper shipping name

Proper shipping name (ADR/RID)	FORMALDEHYDE SOLUTION
Proper shipping name (IMDG)	FORMALDEHYDE SOLUTION
Proper shipping name (ICAO)	FORMALDEHYDE SOLUTION
Proper shipping name (ADN)	FORMALDEHYDE SOLUTION

14.3. Transport hazard class(es)

ADR/RID class	8
ADR/RID classification code	C9
ADR/RID label	8
IMDG class	8
ICAO class/division	8
ADN class	8

Transport labels



14.4. Packing group

ADR/RID packing group	III
IMDG packing group	III
ICAO packing group	III
ADN packing group	III

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant
No.

14.6. Special precautions for user

EmS	F-A, S-B
ADR transport category	3
Emergency Action Code	•2X
Hazard Identification Number (ADR/RID)	80

Formaldehyde BPR Grade 35.0 / 6.5%

Tunnel restriction code (E)

14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code

SECTION 15: Regulatory information

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

National regulations	The Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations 2009 (SI 2009 No. 1348) (as amended) ["CDG 2009"]. EH40/2005 Workplace exposure limits.
EU legislation	Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended). Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended).

15.2. Chemical safety assessment

A chemical safety assessment has been carried out.

Formaldehyde BPR Grade 35.0 / 6.5%

SECTION 16: Other information

Revision date	21/03/2019
Revision	03
Supersedes date	09/04/2018
SDS number	5075
Hazard statements in full	H225 Highly flammable liquid and vapour. H301 Toxic if swallowed. H301+H311+H331 Toxic if swallowed, in contact with skin or if inhaled. H311 Toxic in contact with skin. H314 Causes severe skin burns and eye damage. H317 May cause an allergic skin reaction. H330 Fatal if inhaled. H331 Toxic if inhaled. H335 May cause respiratory irritation. H341 Suspected of causing genetic defects. H350 May cause cancer. H370 Causes damage to organs . H371 May cause damage to organs .

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.