

Product Bio-Tec 2 PACK EPOXY HARDNER - SEMI GLOSS
 Revision date 08 November 2021
 Revision 1



Safety Data Sheet (SDS)
 according to Regulation (EC) No. 1907/2006

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

1.1 Product identifier

Product name	Bio-Tec 2 PACK EPOXY HARDNER - SEMI GLOSS
Other means of identification	No information available.

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

Identified uses	Paint or paint related material.
Uses advised against	Any other purpose.

1.3 Details of the supplier of the safety data sheet

Supplier	FSW Coatings Ltd. Virginia Co Cavan Ireland Tel: 353 49854 7209
Contact person	info@fsw.ie

1.4 Emergency telephone number

Emergency telephone	+ 353 49854 7209 (Between 0900 and 1700 hrs Monday-Friday)
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Section 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (EC 1272/2008)	
Physical and chemical hazards	Not classified
Human health	Not classified
Environment	Not classified

2.2 Label elements

Contains	Not applicable
Label in accordance with (EC) no. 1272/2008	No pictogram required
Signal word	No Signal Word
Hazard statements	No hazard statements required
Precautionary statements	No precautionary statements required

2.3 Other hazards

None known.

Section 3: Composition/information on ingredients

3.1 Substance

Not applicable.

3.2 Mixtures

Name	Product identifier	Regulation (EC) No 1272/2008	%
1-methoxypropan-2-ol	CAS-No.: 107-98-2 EC No.: 203-539-1	Flam. Liq 3- H226, STOT SE 3 - H336	10-15%
benzyl alcohol	CAS-No.: 100-51-6 EC No.: 202-859-9 REACH Reg No.: 01-2119492630-38-XXXX	Acute Tox 4 - H302, Acute Tox 4 - H332	1-5%
formaldehyde 100%	CAS-No.: 50-00-0 EC No.: 200-001-8	Acute Tox 3 - H301, Acute Tox 2 - H310, Skin Corr. 1B - H314, Skin. Sens 1 - H317, Acute Tox 3 - H331, Muta. 2- H341, Carc. 1B - H350	<0.1%

The full text for all hazard statements are displayed in section 16.

Composition comments

The data shown are in accordance with the latest EC Directives.

Formaldehyde: Specific Concentration Limits = Eye Irrit. 2; H319: 5 % ≤ C < 25 %, STOT SE 3; H335: C ≥ 5 %, Skin Corr. 1B; H314: C ≥ 25 %, Skin Irrit. 2; H315: 5 % ≤ C < 25 %, Skin Sens. 1; H317: C ≥ 0,2 %.

Section 4: First aid measures

4.1 Description of first aid measures

General information

Provide general first aid, rest, warmth and fresh air. As a general rule, in case of doubt or if symptoms persist, always call a doctor. As a general rule, in case of doubt or if symptoms persist, always call a doctor. NEVER induce swallowing in an unconscious person. Show this safety data sheet or product label to medical personnel.

Inhalation

Move the exposed person to fresh air at once. Rinse nose and mouth with water. Get medical attention if any discomfort or breathing difficulties develop.

Ingestion

Rinse mouth out and then drink plenty of water. Seek medical attention.

Skin contact

Remove affected person from source of contamination. Wash exposed area with soap and water. Get medical attention if irritation develops or persists.

Eye contact

Remove contact lenses if present and easy to do so. Hold eye lids open. Rinse with a gentle stream water for at least 15 minutes. Seek medical attention.

4.2 Most important symptoms and effects, both acute and delayed

General information

The severity of the symptoms described will vary dependent on the concentration and the length of exposure.

Inhalation

Prolonged inhalation of fog or mist may be irritating to nose and throat.

Ingestion

Prolonged exposure to product may cause irritation to lining of the mouth.

Skin contact

Prolonged contact may cause redness, irritation and dry skin.

Eye contact

May cause temporary eye irritation.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to the physician

Treat symptomatically.

Section 5: Firefighting measures

5.1 Extinguishing media

Extinguishing media

This product is not flammable. Use fire-extinguishing media appropriate for surrounding materials. Water spray, foam, dry powder or carbon dioxide.

Unsuitable extinguishing media

High volume water jet.

5.2 Special hazards arising from the substance or mixture

Hazardous combustion products

During fire, toxic gases (CO, CO₂) are formed.

Unusual fire & explosion hazards

No unusual fire or explosion hazards noted.

Specific hazards

Floors may become slippery, avoid falls.

5.3 Advice for firefighters

Special fire fighting procedures

Avoid breathing fire vapours. Keep up-wind to avoid fumes. Fight advanced or massive fires from safe distance or protected location. Ventilate closed spaces before entering them.

Protective equipment for firefighters Containers close to fire should be removed immediately or cooled with water if safe to do so. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents. 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 Wear protective clothing as described in Section 8 of this safety data sheet. Read and follow manufacturer's recommendations.

For emergency responders Follow safe handling advice and personal protective equipment recommendations for normal use of product.

6.2 Environmental precautions

Environmental precautions Avoid discharge in to drains and water courses.

6.3 Methods and material for containment and cleaning up

Spill clean up methods Stop leak if possible without risk. Wear necessary protective equipment. Absorb spillage with non-combustible, absorbent material. Ensure that waste and contaminated materials are collected and removed from the work area as soon as possible in a suitably labelled container. Wash thoroughly after dealing with a spillage.

6.4 Reference to other sections

Reference to other sections See section 1 for emergency contact. For personal protection, see section 8. For waste disposal, see section 13.

Section 7: Handling and storage

7.1 Precautions for safe handling

Handling Read and follow manufacturer's recommendations. Observe occupational exposure limits and minimise the risk of inhalation of vapours and mist. Do not eat, drink or smoke when using the product. Avoid spilling, skin and eye contact. Ensure adequate ventilation. Use proper personal protection when handling (refer to Section 8).

7.2 Conditions for safe storage, including any incompatibilities

Storage precautions Store in tightly closed original container in a cool, dry and well-ventilated place. Keep upright, locked up and out of reach of children.

Storage class Unspecified storage.

7.3 Specific end use(s)

Specific end use(s) The identified uses for this product are detailed in Section 1.

Usage description Use only according to directions. Replace and tighten cap after use.

Section 8: Exposure controls/Personal protection

8.1 Control parameters

Component	STD	TWA (8 Hrs)		STEL (15mins)		Notes
1-methoxypropan-2-ol	OEL	100 ppm	375 mg/m ³	150 ppm	568 mg/m ³	IOELV
formaldehyde 100%	OEL	0.3 ppm	0.37 mg/m ³	0.6 ppm	0.738 mg/m ³	BOELV, Carc 1B, Sens, Limit value 0.5ppm/0.62mg/m ³ for the healthcare, funeral and embalming sectors until 11 July 202421.

Ingredient comments

Ireland, Occupational Exposure Limits 2021.

8.2 Exposure Controls**Protective equipment****Engineering measures**

Provide adequate ventilation, including appropriate local extraction, to ensure that the defined occupational exposure limit is not exceeded.

Respiratory equipment

Where risk assessment shows air-purifying respirators are appropriate a full face respirator conforming to EN143 should be used, and suitable respirator cartridges as a backup to engineering controls. Use type ABEK (EN 14387) respirator cartridges. Change filters frequently. Consult manufacturer for specific advice.

Hand protection

Use suitable protective gloves if there is a risk of skin contact. Where hand contact with the product may occur the use of gloves approved to relevant standards (e.g. Europe: EN374) is recommended. Nitrile rubber. Break through time: >480 minutes. Layer thickness: 0.33 mm. Chloroprene. Break through time: >480 minutes. Layer thickness: > 0.6 mm. Consult manufacturer for specific advice.

Eye protection

Use equipment for eye protection tested and approved under appropriate government standards such as EN 166(EU).

Other protection

Protective clothing should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. The selected clothing must satisfy the European norm standard EN 943.

Hygiene measures

Wash hands and / or face before breaks and at the end of the shift. Do not eat, drink, or smoke while using this product. Avoid contact with skin, eyes and clothing.

Process conditions

Use only according to directions. Ensure that eye flushing systems and safety showers are located close by in the work place.

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

Appearance	Viscous liquid.
Colour	White. Opaque.
Odour	Faint odour.
Odour threshold - lower	No information available as testing has not been completed.
Odour threshold - upper	No information available as testing has not been completed.
pH-Value, Conc. Solution	7.5 - 9.0
pH-Value, Diluted solution	No information available as testing has not been completed.
Melting point	May start to solidify at the following temperature: 0°C This is based on data for the following ingredient: water.
Initial boiling point and boiling range	38°C
Flash point	Not applicable.
Evaporation rate	Not applicable.
Flammability state	Non flammable
Flammability limit - lower(%)	No information available as testing has not been completed.
Flammability limit - upper(%)	0.00
Vapour pressure	Highest known value: 3.2 kPa (23.8 mm Hg) (at 20°C) (water). Weighted average: 3.12 kPa (23.4 mm Hg) (at 20°C)
Vapour density (air=1)	Vapour density Highest known value: 7.5 (Air = 1) (isobutyric acid, monoester with 2,2, 4-

	trimethylpentane-1,3-diol).
Relative density	1.08
Bulk density	No information available as testing has not been completed.
Solubility	Partially soluble in cold water.
Decomposition temperature	Stable under normal handling and storage conditions
Partition coefficient; n-Octanol/Water	No information available as testing has not been completed.
Auto ignition temperature (°C)	Not applicable.
Viscosity	Kinematic (40°C): >0.21 cm ² /s
Explosive properties	Not classified as explosive.
Oxidising properties	The product does not meet the criteria to be classified as oxidising.

9.2 Other information

Molecular weight	No information available as testing has not been completed.
Volatile organic compound	106.00 g/litre
Other information	Weight Solids: 47.0% +/- 1.0% Volume solids: 43.0% +/- 1.0%

Section 10: Stability and reactivity

10.1 Reactivity

Reactivity	Reactions may occur with strong oxidizing agents and acids.
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10.2 Chemical stability

Stability	Stable under normal temperature conditions and recommended use.
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10.3 Possibility of hazardous reactions

Hazardous reactions	For information on hazardous reactions see section 10.1.
Hazardous polymerisation	Unknown.
Polymerisation description	Unknown.

10.4 Conditions to Avoid

Conditions to avoid	Avoid exposure to high temperatures or direct sunlight. Avoid heat, flames and other sources of ignition.
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10.5 Incompatible materials

Materials to avoid	Do not mix with other chemicals unless listed on directions. Avoid contact with oxidising substances and acids.
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10.6 Hazardous decomposition products

Hazardous decomposition products	In case of fire, toxic gases (CO, CO ₂ ,) may be formed.
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Section 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No. 1272/2008

Toxicological information	No toxicological information for the overall finished product.
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Acute toxicity (Oral LD50)	No information available as testing has not been completed.
Acute toxicity (Dermal LD50)	No information available as testing has not been completed.
Acute toxicity (Inhalation LD50)	No information available as testing has not been completed.
Serious eye damage/irritation	May cause temporary eye irritation.
Skin corrosion/irritation	The product is not classified as a skin corrosion/irritation hazard.
Respiratory sensitisation	The product is not classified as a respiratory hazard.
Skin sensitisation	The product is not classified as a skin sensitisation hazard.
Germ cell mutagenicity	The product is not classified as a mutagen.
Carcinogenicity	The product is not classified as a carcinogen hazard.
Specific target organ toxicity - Single exposure:	
STOT - Single exposure	The product is not classified as a single exposure specific target organ toxin.
Specific target organ toxicity - Repeated exposure:	
STOT - Repeated exposure	The product is not classified as a repeat exposure specific target organ toxin.
Inhalation	Prolonged inhalation of fog or mist may be irritating to nose and throat.
Ingestion	Prolonged exposure to product may cause irritation to lining of the mouth.
Skin contact	Prolonged contact may cause redness, irritation and dry skin.
Eye contact	May cause temporary eye irritation.
Waste management	When handling waste, consideration should be made to the safety precautions applying to handling of the product.
Routes of entry	Eyes, skin, ingestion or inhalation.
Target organs	Eyes, skin, digestive system, respiratory system.
Aspiration hazards:	The product is not classified as an aspiration hazard.
Reproductive toxicity:	The product is not classified as a reproductive hazard.

Name	LD50 oral	LD50 dermal	LD50 inhalation
1-methoxypropan-2-ol	3739.00mg/kg Rat	13536.00mg/kg Rabbit	
benzyl alcohol	1230.00mg/kg Rat	2000.00mg/kg Rabbit	>4178.00mg/l (vapours) Rabbit 4 Hours
formaldehyde 100%	>200.00mg/kg Rat		

11.2 Information on other hazards

Information on other hazards None known.

Section 12: Ecological information

12.1 Toxicity

Acute toxicity - Fish	No information available as testing has not been completed.
Acute toxicity - Aquatic invertebrates	No information available as testing has not been completed.
Acute toxicity - Aquatic plants	No information available as testing has not been completed.
Acute toxicity - Microorganisms	No information available as testing has not been completed.
Chronic toxicity - Fish	No information available as testing has not been completed.
Chronic toxicity - Aquatic invertebrates	No information available as testing has not been completed.
Chronic toxicity - Aquatic plants	No information available as testing has not been completed.
Chronic toxicity - Microorganisms	No information available as testing has not been completed.
Ecotoxicity	The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.
Eco toxicological information	Not classified as dangerous for the environment according to the criteria of Regulation (EC) No 1272/2008.

12.2 Persistence and degradability

Degradability	The degradability of the product has not been stated.
Biological oxygen demand	No information available as testing has not been completed.
Chemical oxygen demand	No information available as testing has not been completed.

12.3 Bioaccumulative potential

Bioaccumulative potential	No data available on bioaccumulation.
Bioaccumulation factor	No information available as testing has not been completed.
Partition coefficient; n-Octanol/Water	No information available as testing has not been completed.

12.4 Mobility in soil

Mobility	Partially soluble in cold water.
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12.5 Results of PBT and vPvB assessment

Results of PBT and vPvB assessment The product does not contain any PBT or vPvB Substances.

12.6 Endocrine disrupting properties

Endocrine disrupting properties	The product does not contain any substances with endocrine disrupting properties at a concentration above or equal to 0.1%.
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12.7 Other adverse effects

Other adverse effects	None known.
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Name	Acute toxicity (Fish)	Acute toxicity (Aquatic invertebrates)	Acute toxicity (Aquatic plants)
benzyl alcohol	LC50 96 Hours 10000.00mg/l Lepomis macrochirus (Bluegill)		

Section 13: Disposal considerations

Waste management	When handling waste, consideration should be made to the safety precautions applying to handling of the product.
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13.1 Waste treatment methods

Disposal methods	Dispose of waste and residues in accordance with local authority requirements, and in accordance with all local, national and international regulations. For waste disposal, use a licensed industrial waste disposal agent.
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Section 14: Transport information**14.1 UN number or ID number**

UN no. (ADR)	Not applicable.
UN no. (IMDG)	Not applicable.
UN no. (IATA)	Not applicable.

14.2 UN proper shipping name

ADR proper shipping name	Not applicable.
IMDG proper shipping name	Not applicable.
IATA proper shipping name	Not applicable.

14.3 Transport hazard class(es)

ADR class	Not applicable.
IMDG class	Not applicable.
IATA class	Not applicable.

Transport labels	Not applicable
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14.4 Packing group

ADR/RID/ADN packing group	Not applicable.
IMDG packing group	Not applicable.
IATA packing group	Not applicable.

14.5 Environmental hazards

ADR	No
IMDG	No
IATA	No

14.6 Special precautions for user

EMS	Not applicable.
Emergency action code	Not applicable.
Hazard no. (ADR)	Not applicable.
Tunnel restriction code	Not applicable.

14.7 Maritime transport in bulk according to IMO instruments

Not applicable.

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

EU legislation	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, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 with amendments. The UN Globally Harmonized System (GHS) Safety Data Sheet format (Annex IV) is implemented as Annex II of REACH EU No 2020/878 of 18 June 2020 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH).
Approved code of practice	2021 Code of Practice for the Safety, Health and Welfare at Work (Chemical Agents) Regulations (2001-2021) and the Safety, Health and Welfare at Work (Carcinogens) Regulations (2001-2019)

15.2 Chemical safety assessment

Chemical safety assessment	No chemical safety assessment has been carried out.
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Section 16: Other information

General information	This Safety Data Sheet is in accordance with REACH Annex II, (EC) No 2020/878.
Revision comments	This is a first issue.
Revision date	08 November 2021
Revision	1
Safety data sheet status	Approved.

Hazard statements in full

H226	Flammable liquid and vapour.
H336	May cause drowsiness or dizziness.
H302	Harmful if swallowed.
H332	Harmful if inhaled.
H301	Toxic if swallowed.
H311	Toxic in contact with skin.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H331	Toxic if inhaled.
H341	Suspected of causing genetic defects .
H350	May cause cancer .

Disclaimer

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.