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1. IDENTIFICATION OF SUBSTANCE / MIXTURE OF THE COMPANY / UNDERTAKING

1.1 Product Identifier

Material name: Epox-Eze – Part B Hardener

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

Product use: Epoxy coating component

1.3 Details of the supplier of the safety data sheet

Manufacturer / Supplier: IMG Ltd.,

Unit M

Riverside Industrial Estate

Fazeley Tamworth B**78** 3RW

Telephone: 01827 283322

Fax: 01827 250143

Email (for SDS): sales@img-limited.co.uk

1.4 Emergency tel. no: 01827 283322 (Available from 8.30 – 17.00 hours)

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

According to 1272/2008/EC: Classification, Labelling and Packaging of Substances and Mixtures (CLP)

Regulation:

Physical and Chemical hazards Not classified

Human Health Acute Tox.4; H 302; Skin Corr.1B; H314; Eye Dam.1; H318; Skin Sens.1;

H317; Repr.1B; H360F (Fertility)

Environment Aquatic Chronic 3; H412

2.2 Label elements

Label according to EC Directives: 1272/2008/EC:

Signal word: Danger

Pictogram(s):







Contains: Isophorone Diamine, 1,3-Benzenedimethanamine, 4,4'-Isopropylidenediphenol

Hazard H302 Harmful if swallowed.

Statements: H314 Causes severe skin burns and eye damage.

H317 May cause an allergic skin reaction.

H360F May damage fertility.





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H412 Harmful to aquatic life with long lasting effects.

Precautionary P201 Obtain special instructions before use.

Statements: P280 Wear protective gloves/protective clothing/eye or face protection.

P273 Avoid release to the environment.

P304+P340+P310 IF INHALED: Remove person to fresh air and keep comfortable for

breathing. Immediately call a POISON CENTRE or physician.

P301+P310 IF SWALLOWED: Immediately call a POISON CENTRE or physician.

P331 Do NOT induce vomiting.

P303+P361+P353+P310 IF ON SKIN (or hair): Take off immediately all contaminated

clothing. Rinse skin with water. Immediately call a POISON CENTRE

or physician.

P305+P310 IF IN EYES: Immediately call a POISON CENTRE or physician.

P405 Store locked up.

P501 Dispose of contents/container to requirements of local authorities.

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

3. COMPOSITION / INFORMATION ON INGREDIENTS

3.2 Mixtures:

Hazardous components:

Chemical Name	CAS.No/ EC No./ Reg.No	Classification (1272/2008/EC)	Content
Isophorone Diamine	CAS: 2855-13-2 EC: 220-666-8 INDEX: 612-067-00-9	Acute Tox.4; H302 Acute Tox.4; H312 Skin Corr.1B; H314 Eye Dam.1; H318 Skin Sens.1; H317 Aquatic Chronic 3; H412	≥25-<50%
Phenylmethanol	CAS: 100-51-6 EC: 202-859-9 REACH: 01-2119492630-38 INDEX: 603-057-00-5	Acute Tox.4; H302 Acute Tox.4; H332 Eye Irr.2; H319	≥25-<50%
1,3-Benzenedimethanamine	CAS: 1477-55-0 EC: 216-032-5	Acute Tox.4; H302 Acute Tox.4; H332 Skin Corr.1B; H314 Eye Dam.1; H318 Skin Sens.1; H317 Aquatic Chronic 3; H412	≤10%
4,4'-Isopropylidenediphenol	CAS: 80-05-7 EC: 201-245-8 REACH: 01-2119457856-23 INDEX: 604-030-00-0	Eye Dam.1; H318 Skin Sens.1; H317 Repr.1B; H360F (Fertility) STOT SE 3; H335 Aquatic Chronic 2; H411	≤10%
Salicylic Acid	CAS: 69-72-7 EC: 200-712-3	Acute Tox.4; H302 Eye Dam.1; H318	≤5%

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





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4. FIRST AID MEASURES

4.1 Description of first aid measures

General advice: In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything

by mouth to an unconscious person. If unconscious, place in recovery position and seek

medical advice.

Eye contact: Check for and remove any contact lenses. Immediately flush eyes with running water for at

least 15 minutes, keeping eyelids open. Seek immediate medical attention.

Inhalation: Remove victim to fresh air and keep warm and at rest. If not breathing, if breathing is

irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained

personnel.

Skin contact: Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water or use

recognised skin cleanser. Do NOT use solvents or thinners.

Ingestion: If swallowed, seek medical advice immediately and show the container or label. Keep person

warm and at rest. Do NOT induce vomiting.

Protection of first aiders: No action shall be taken involving any personal risk 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: In case of contact with eye, irritation may occur. Ingestion may cause nausea, diarrhoea and vomiting.

Contains 3-aminomethyl-3,5,5-trimethylcyclohexylamine, m-phenylenebis(methylamine), Bisphenol A. May produce an allergic reaction.

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

5. FIRE-FIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media: Alcohol-resistant foam, carbon dioxide, powders.

Unsuitable extinguishing media: Do not use water jet.

5.2 Special hazards arising from the substance or mixture

Fire will produce dense black smoke. Exposure to decomposition products may cause a health hazard.

Decomposition products may include: carbon monoxide, carbon dioxide, smoke, oxides of nitrogen.

5.3 Advice for fire-fighters

Special protective actions for fire-fighters

Cool closed containers exposed to fire with water. Do not release runoff from fire to drains or watercourses.

Special protective equipment for fire-fighters

Fire-fighters should wear positive pressure self-contained breathing apparatus (SCBA) and full turnout gear.





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6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel: Exclude sources of ignition and ventilate the area. Avoid breathing vapour

or mist. Refer to protective measures listed in Sections 7 and 8. Keep

unnecessary and unprotected personnel from entering.

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.

6.2 Environmental precautions

Do not allow to enter drains or watercourses. If the product contaminated lakes, or sewers, inform the appropriate authorities in accordance with local regulations. May be harmful to the environment if released in large quantities.

6.3 Methods and materials for containment and cleaning up

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. Preferably clean with a detergent. Avoid using solvents.

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.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Prevent the creation of flammable or explosive concentrations of vapours in air and avoid vapour concentrations higher than the occupational exposure limits. In addition, the product should only be used in areas from which all naked lights and other sources of ignition have been excluded.

Keep away from heat, sparks and flame. No sparking tools should be used. Avoid contact with skin and eyes. Avoid the inhalation of dust, particulates, spray or mist arising from the application of this mixture. Avoid inhalation of dust from sanding.

Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Put on personal protective equipment.

7.2 Conditions for safe storage, including any incompatibilities

Store in a dry, cool and well-ventilated area. Keep away from heat and direct sunlight. Keep away from sources of ignition. No smoking. Prevent unauthorised access. Containers that have been opened must be carefully resealed and kept upright to prevent leakage.

Store in accordance with local regulations. Keep away from oxidising agents, strong alkalis, strong acids.

7.3 Specific end use(s)

Not available.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION





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8.1 Control parameters

Occupational exposure limits

Chemical Name	8hr TWA	15min STEL	Reference
4,4'-lsopropylidenediphenol	2 mg/m ³	No data available	EH40/2005 WELs (UK 8/2018).

Regular monitoring of all work areas should be carried out at all times, including areas that may not be equally ventilated.

DNELs/DMELs

No DNELs/DMELs available.

PNECs

No PNECs available.

8.2 Exposure controls

Engineering measures: Provide adequate ventilation. Where reasonably practicable, this should be

achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and solvent

vapours below the OEL, suitable respiratory protection must be worn.

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.

Personal Protective Equipment

Hand protection: Wear suitable gloves tested to EN 374. The user must check that the choice of glove

selected for handling this product is the most appropriate.

Eye protection: Use safety eyewear designed to protect against the splash of liquids.

Skin protection: Personnel should wear antistatic clothing made of natural fibres or of high-

temperature resistant synthetic fibres. Personal protective equipment for the body

should be selected based on the task being performed and the risk involved.

Respiratory protection: Application methods: Brush or roller. Approved/certified respirator with organic

vapour cartridge. Filter type: A2 P2 (EN 14387). Manual spraying. Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a

risk assessment indicates this is necessary.

Environmental exposure controls: Do not allow to enter drains or watercourses.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

State and colour: Liquid, various.

Odour: Solvent.





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Odour threshold: No data available (not tested).

Flammability: Not relevant/applicable due to nature of the product.

Flash point: 499°C (Pensky-Martens Closed Cup).

Lower explosion limit:1.1% (Salicylic Acid).Upper explosion limit:13% (Phenylmethanol).Explosive properties:No data available.Thermal decomposition:No data available.Auto-ignition temperature:No data available.Oxidising properties:No data available.

Solubility in water:

Not relevant/applicable due to nature of the product.

Boiling point / range: 202°C Relative Density: 1.04

 Vapour pressure:
 0.02 kPa [@ 20°C]

 Vapour density:
 3.72 (Air =1)

Partition coefficient: n-octanol / water: Not relevant/applicable due to nature of the product.

Viscosity (kinematic): $>0.205 \text{ cm}^2/\text{s} (40^{\circ}\text{C})$

Evaporation rate: Not relevant/applicable due to nature of the product.

9.2 Other information No data available.

10. STABILITY AND REACTIVITY

10.1 Reactivity Stable under recommended transport and storage conditions.
 10.2 Chemical stability Stable under recommended storage and handling conditions.

10.3 Possibility of hazardous reactions Under normal conditions of storage and use, hazardous reactions

will not occur.

10.4 Conditions to avoid When exposed to high temperatures may produce hazardous

decomposition products.

10.5 Incompatible materials Keep away from the following materials; oxidising agents, strong

alkalis, strong acids.

10.6 Hazardous decomposition products Decomposition products may include the following materials;

carbon monoxide, carbon dioxide, smoke, oxides of nitrogen.

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Contains 3-aminomethyl-3,5,5-trimethylcyclohexylamine, m-phenylenebis(methylamine), bisphenol A. May produce an allergic reaction.

Acute Toxicity

Chemical Name	Oral (LD50)	Inhalation (LC50)	Dermal (LD50)
Phenylmethanol	1230 mg/kg (Rat)	No data available	2000mg/kg (Rabbit)
1,3- Benzenedimethanamine	930 mg/kg (Rat)	700 ppm (1h, Rat)	2 g/kg (Rabbit)





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4,4'- Isopropylidenediphenol	1200 mg/kg (Rat)	No data available	No data available
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Acute Toxicity Estimates

Route	ATE Value	
Oral	756.44 mg/kg	
Dermal	2682.93 mg/kg	
Inhalation (gases)	50000 ppm	
Inhalation (vapours)	27.5 mg/l	

Irritation / Corrosion

Chemical Name	Result	Species	Exposure
	Skin – Mild irritant	Man	48 hours 16 milligrams
Phenylmethanol	Skin – Moderate irritant	Pig	100 percent
	Skin – Moderate irritant	Rabbit	24 hours 100 milligrams
1,3-Benzenedimethanamine	Eyes – Severe irritant	Rabbit	24 hours 50 μg
1,5-benzeneumemanamme	Skin – Severe irritant	Rabbit	24 hours 750 μg
	Eyes – Severe irritant	Rabbit	24 hours 250 μg
4,4'-Isopropylidenediphenol	Skin – Mild irritant	Rabbit	24 hours 500 mg
	Skin – Mild irritant	Rabbit	250 mg

Symptoms / routes of exposure

Skin corrosion / irritation: No data available.

Serious eye damage / irritation: If splashed in eyes may cause irritation and redness.

Respiratory or skin sensitisation:
Repeated dose toxicity:
Carcinogenicity:
Mutagenicity:
No data available.

Specific target organ toxicity (STOT):

Chemical Name	Category	Route of Exposure	Target Organs
4,4'- Isopropylidenediphenol	Category 3	Not applicable	Respiratory tract irritation





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Further information: No data available.

12. ECOLOGICAL INFORMATION

12.1 Toxicity

Chemical name	Species	Test	Value
Phenylmethanol	Fish – Lepomis macrochirus	Acute LC50 96h	10000 μg/l
Isophorone Diamine	Daphnia – Daphnia Magna	Acute EC50 48h	17.4 mg/l
	Algae – Skeletonema costatum	Acute EC50 96h	1000 μg/l
	Algae – Prprpcentrum minimum – Exponential growth phase	Acute EC50 72h	1.506 mg/l
	Daphnia – Daphnia Magna – Neonate	Acute EC50 48h	7.75 mg/l
	Crustaceans –Artemia sinica	Acute LC50 48h	50.4 μg/l
4,4'-lsopropylidenediphenol	Fish – Rivulus marmoratus – Embryo	Acute LC50 96h	3.5 mg/l
	Algae – Chlorolobion braunii – Exponential growth phase	Chronic NOEC 4 days	2 mg/l
	Crustaceans – Tigriopus japonicas – Nauplii	Chronic NOEC 21 days	10 μg/l
	Daphnia – Daphnia Magna – Neonate	Chronic NOEC 21 days	30 μg/l
	Fish – Carassius auratus – Adult	Chronic NOEC 90 days	0.2 μg/l
Salienalia Acid	Daphnia – Daphnia magna - Neonate	Acute LC50 48h	111.7 mg/l
Salicyclic Acid	Daphnia – Daphnia magna - Neonate	Chronic NOEC 21 days	5.6 mg/l

12.2 Persistence and degradability

12.3 Bioaccumulative potential

Phenylmethanol – readily biodegradable.

Chemical name	LogP _{ow}	BCF	Potential
1,3-Benzenedimethanamine	-	2.69	Low
4,4'-Isopropylidenediphenol		20 to 67	Low

12.4 Mobility in soil

12.5 Results of PBT and vPvB assessment

12.6 Other adverse effects

No data available.

This product is not identified as a PBT/vPvB substance. No known significant effects or critical hazards. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.





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13. DISPOSAL CONSIDERATIONS

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 **un**treated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.

Hazardous waste: Yes.

European Waste Catalogue: waste p aint and varnish containing organic solvents or other hazardous substances 08 01 11*

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.

European Waste Catalogue: packaging containing residues of or contaminated by hazardous substances 15 01

Special precautions: This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

14. TRANSPORT INFORMATION

14.1 UN number	ADR/RID/AND; IMDG; ICAO	3066
14.2 UN Proper shipping name	PAINT RELATED MATERIAL	
14.3 Transport hazard class(es)	ADR/RID/ADN Class	8
	ADR Label No.	8
	IMDG Class	8
	ICAO Class/Division	8
	ICAO Subsidiary Risk	8



Transport labels

14.4 Packing group ADR/RID/AND; IMDG; ICAO I

14.5 Environmental hazards No

14.6 Special precautions for user ADR/RID – Tunnel code – E





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IMDG - Tunnel code - F-A, S-B

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC code: Not applicable.

15. REGULATORY INFORMATION

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

UK Regulatory References

The Control of Substances Hazardous to Health Regulations 2002 (S.I 2001 No.2677) with amendments.

EU Directives

Regulations (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. Regulation EU 453/2010 amending Regulation (EC) No 1907/2006.

Statutory Instruments

The Chemicals (Hazard information and Packaging for Supply) Regulations 2009 (S.I 2009 No. 716).

Guidance Notes

Health and Safety Executive Workplace Exposure Limits EH40.

15.2 Chemical Safety Assessment

Chemical safety assessments / reports are not required for mixtures.

16. OTHER INFORMATION

This safety data sheet is prepared in accordance with Regulation EU 453/2010, amending Regulation (EC) No 1907/2006 (REACH – Registration, Evaluation, Authorisation and Restriction of Chemicals).

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) No 1272/2008 (CLP):

Physical hazards: On basis of test data / Expert judgement

Health hazards: Calculation method **Environmental hazards:** Calculation method

Full text of H-statements referred to under sections 2 and 3

H302 Harmful if swallowed.

H312 Harmful in contact with skin.

H314 Causes severe skin burns and eye damage.

H317 May cause an allergic skin reaction.

H318 Causes serious eye damage.

H319 Causes serious eye irritation.

H332 Harmful if inhaled.

H335 May cause respiratory irritation.

H360F May damage fertility.

H411 Toxic to aquatic life with long lasting effects.

H412 Harmful to aquatic life with long lasting effects.





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ATE Acute Toxicity Estimate – Section 11.

CAS Chemical Abstract Service (division of the American Chemical Society) – Section 3.

STOT Single Target Organ Toxicity – Section 11.

TWA Time Weighted Average – Section 8.

STEL Short Term Exposure Limit – Section 8.

DNEL Derived No Effect Level – Section 8.

EC50 Effective Concentration, 50 percent – Section 12.

LD50 Lethal Dose, 50 percent – Section 11.

LC50 Lethal Concentration, 50 percent – Section 11.
PBT Persistent, Bioaccumulative, Toxic – Section 12.

VPvB very Persistent and very Bioaccumulative – Section 12.

Legal disclaimer: The above information is believed to be correct but does not purport to be all inclusive and shall only be used as a guide. This company shall not be held liable for any damage resulting from handling or from contact with the above product.

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