

Up-Mark-It HB Hardener

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Issued: 20/02/2020, Revision No: 1
Regulation (EC) No. 453/2010

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

- 1.1 Product Identifier**
Material name: Up Mark It HB - Hardener
- 1.2 Relevant identified uses of the substance or mixture and uses advised against**
Product use: Epoxy line marking coating component
- 1.3 Details of the supplier of the safety data sheet**
Manufacturer / Supplier: IMG Ltd.,
Unit M
Riverside Industrial Estate
Fazeley
Tamworth
B78 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; H302; Acute Tox.4; H332; Skin Corr.1B; H314; Skin Sens.1; H317; Eye Dam.1; H318; Repr.2; H361fd (Fertility and Unborn child)
Environment	Aquatic Acute 1; H400; Aquatic Chronic; H410

2.2 Label elements

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

Signal word: Danger

Pictogram(s):



Contains: Paratertiarybutylphenol, Trimethyl-1,6-hexanediamine, 1,3-Benzenedimethanamine, Phenol, 4-Nonyl-,Branched

Hazard Statements:
H302+H322 Harmful if swallowed or inhaled.
H314 Causes severe skin burns and eye damage.
H317 May cause an allergic skin reaction.

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	H361fd	Suspected of damaging fertility. Suspected of damaging the unborn child.
	H410	Very toxic to aquatic life with long lasting effects.
Precautionary Statements:	P201	Obtain special instructions before use.
	P280	Wear protective gloves/protective clothing/eye protection/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 CENTER or physician.
	P301+P310	IF SWALLOWED: Immediately call a POISON CENTER or physician.
	P303+P361+P353+P310	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. Immediately call a POISON CENTER or physician.
	P305+P310	IF IN EYES: Immediately call a POISON CENTER or physician.
	P405	Store locked up.
	P501	Dispose of contents and container in accordance with all local, regional, national and international regulations.

2.3 Other hazards: This mixture does not contain any substances that are assessed to be a 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
Paratertiarybutylphenol	CAS: 98-54-4 EC: 202-679-0 INDEX: 604-090-00-8	Skin Irr.2; H315 Eye Dam.1; H318 Repr.2; H361f (Fertility) Aquatic Chronic 1; H410 (M=1)	≥25-≤50%
Trimethyl-1,6-hexanediamine	CAS: 25620-58-0 EC: 247-134-8	Acute Tox.4; H302 Skin Corr.1B; H314 Eye Dam.1; H318 Skin Sens.1; H317 Aquatic Chronic 3; H412	≥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	≥25-≤50%
Phenol, 4-Nonyl-,Branched	CAS: 84852-15-3 EC: 284-325-5 REACH: 01-2119510715-45	Acute Tox.4; H302 Skin Corr.1B; H314 Eye Dam.1; H318 Repr.2; H361fd (Fertility and Unborn child) (oral) Aquatic Acute 1; H400 (M=10) Aquatic Chronic 1; H410 (M=10)	≤10%

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

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 to fresh air. Keep person 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. It may be dangerous to the person providing aid to give mouth to mouth resuscitation.

4.2 Most important symptoms and effects, both acute and delayed: Contains trimethylhexane-1,6-diamine, m-phenylenebis(methylamine). May produce an allergic reaction. If splashed in eyes, may cause irritation and reversible damage.

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

Decomposition products may include: carbon monoxide, carbon dioxide, smoke, oxides of nitrogen. Fire will produce dense black smoke. Exposure to decomposition products may cause a health hazard.

5.3 Advice 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.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

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.

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6.2 Environmental precautions

Do not allow to enter drains or watercourses. If the product contaminated lakes, rivers, or sewers, inform the appropriate authorities in accordance with local regulations.

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 personal protective equipment.

See Section 13 for additional waste treatment information.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

This 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.

Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Use appropriate personal protective equipment. Comply with health and safety at work laws.

7.2 Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations. Keep away from oxidising agents, strong alkalis, strong acids and sources of ignition. Store in a dry, cool and well-ventilated area. Keep away from heat and direct sunlight.

7.3 Specific end use(s)

Not available.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control parameters

Occupational exposure limits

No exposure limit value known.

DNELs/DMELs

No data available.

PNECs

No data available.

8.2 Exposure controls

Engineering measures: Ensure there is sufficient ventilation of the area.

Personal Protective Equipment

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Hand protection:	Wear suitable gloves tested to EN374. Always ensure that gloves are free from defects and that they are stored and used correctly.
Eye protection:	Use safety eyewear designed to protect against splash of liquids.
Skin protection:	Personal protective equipment for the body should be selected based on the task being performed. Appropriate footwear and any additional skin protection measures should be selected based on the task being performed.
Respiratory protection:	If application via brush or roller; use approved / certified respirator with organic vapour cartridge. Filter type: A2P2 (EN14387). If application via manual spraying; use properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary.
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.
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.
Odour:	Solvent.
Odour threshold:	No data available.
Flammability:	Not relevant / applicable due to nature of the product.
Flash point:	499°C [Pensky-Martens Closed Cup].
Lower explosion limit:	Not relevant / applicable due to nature of the product.
Upper explosion limit:	Not relevant / applicable due to nature of the product.
Explosive properties:	Under normal conditions of storage and use, hazardous reactions will not occur.
Thermal decomposition:	Not relevant / applicable due to nature of the product.
Auto-ignition temperature:	No data available.
Oxidising properties:	Under normal conditions of storage and use, hazardous reactions will not occur.
Solubility in water:	Not relevant / applicable due to nature of the product.
Solubility in other solvents:	No data available.
pH:	No data available.
Melting point / range:	No data available.
Boiling point / range:	Not relevant / applicable due to nature of the product.
Relative Density:	0.97
Vapour pressure:	Not relevant / applicable due to nature of the product.
Vapour density:	Not relevant / applicable due to nature of the product.
Partition coefficient: n-octanol / water:	Not relevant / applicable due to nature of the product.
Viscosity (kinematic):	Kinematic (40°C): >0.205 cm ² /s
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 No specific test data related to reactivity available for this product or its ingredients.

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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 trimethylhexane-1,6-diamine, m-phenylenebis(methylamine). May produce an allergic reaction.

Acute Toxicity

Chemical Name	Oral (LD50)	Inhalation (LC50)	Dermal (LD50)
1,3-Benzenedimethanamine	930 mg/kg (Rat)	700 ppm (Rat 1h)	2 g/kg (Rabbit)
Phenol, 4-Nonyl-, Branched	1300 mg/kg (Rat)	No data available	No data available

Acute Toxicity Estimates

Route	ATE Value
Oral Inhalation (gases)	1087.5 mg/kg 16071.43 ppm

Irritation / Corrosion

Chemical Name	Result	Species	Exposure
Paratertiarybutylphenol	Eyes – Severe irritant	Rabbit	24 hours 50 µg
	Eyes – Severe irritant	Rabbit	10 mg
	Skin – Mild irritant	Rabbit	24 hours 50 mg
	Skin – Mild irritant	Rabbit	4 hours 500 mg
1,3-Benzenedimethanamine	Eyes – Severe irritant	Rabbit	24 hours 50 µg
	Skin – Severe irritant	Rabbit	24 hours 750 µg
Phenol, 4-Nonyl-, Branched	Eyes – Severe irritant	Rabbit	100 mg
	Skin – Severe irritant	Rabbit	24 hours 500 mg

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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:	No data available.
Repeated dose toxicity:	No data available.
Carcinogenicity:	No data available.
Mutagenicity:	No data available.
Toxicity for reproduction:	No data available.
Specific target organ toxicity (STOT):	No data available.
Further information:	No data available.

12. ECOLOGICAL INFORMATION

12.1 Toxicity

Do not allow to enter drains or watercourses.

Chemical name	Species	Test	Value
Paratertiarybutylphenol	Algae – Scenedesmus quadricauda – Exponential growth phase	Acute EC50 72h	11.08 mg/l
	Daphnia – Daphnia Magna	Acute EC50 48h	3.9 mg/l
	Fish – Pimephales promelas	Acute LC50 96h	5140 µg/l
	Algae – Scenedesmus quadricauda – Exponential growth phase	Chronic NOEC 72h	1 mg/l
	Daphnia – Daphnia Magna	Chronic NOEC 21 days	0.45 mg/l
	Fish – Gobiocypris rarus – Embryo	Chronic NOEC 28 days	0.5 mg/l
Phenol, 4-Nonyl-, Branched	Algae – Skeletonema Costatum	Acute EC50 72h	0.03 mg/l
	Algae – Skeletonema Costatum	Acute LC50 96h	0.027 mg/l
	Crustaceans – Eohaustorius estuarius – Adult	Acute EC50 48h	137 µg/l
	Fish – Pleuronectes americanus – Larvae	Acute LC50 96h	17 µg/l
	Algae – Skeletonema Costatum	Chronic EC10 96 hours	0.012 mg/l
	Crustaceans – Gammarus fossarum – Adult	Chronic NOEC 21 days	5 µg/l
	Fish – Pimephales promelas – Embryo	Chronic NOEC 33 days	7.4 µg/l

12.2 Persistence and degradability

No data available.

12.3 Bioaccumulative potential

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Chemical name	LogP _{ow}	BCF	Potential
Paratertiarybutylphenol	-	44 to 48	Low
1,3-Benzenedimethanamine	-	2.69	Low
Phenol, 4-Nonyl-,Branched	-	740	High

12.4 Mobility in soil

No data available.

12.5 Results of PBT and vPvB assessment

This product is not identified as a PBT/vPvB substance.

12.6 Other adverse effects

No known significant effects or critical hazards. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

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

Hazardous waste: Yes.

European Waste

Catalogue (EWC): waste paint and varnish containing organic solvents or other hazardous substances. 08 01 11*

Disposal Considerations: Do not allow to enter drains or watercourses. Dispose of according to all local and national regulations. If the product is mixed with other wastes, the original waste product code may no longer apply and the appropriate code should be assigned.

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.

Disposal considerations: Using information provided in this safety data sheet, advice should be obtained from the relevant waste authority on the classification of empty containers.

European waste

Catalogue (EWC): Packaging containing residues of or contaminated by hazardous substances. 15 01 10*

Special Precautions: This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that 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

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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	III
14.5 Environmental hazards	Yes	
14.6 Special precautions for user	Tunnel Code	E
	Emergency Schedules	F-A, S-F

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

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Health hazards: Calculation method
Environmental hazards: Calculation method

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

H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H332	Harmful if inhaled.
H361f	Suspected of damaging fertility.
H361fd (oral)	Suspected of damaging fertility if swallowed. Suspected of damaging the unborn child if swallowed.
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.

Abbreviations and acronyms

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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