



SAFETY DATA SHEET BRUSHABLE CERAMIC RED HARDENER

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Product name BRUSHABLE CERAMIC RED HARDENER

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

Identified uses Hardener.

1.3. Details of the supplier of the safety data sheet

Supplier ITW DEVCON
BAY 150
SHANNON INDUSTRIAL ESTATE
SHANNON
CO CLARE
IRELAND
T: +353 (0)61471299
F: 353(0)61471285
info@itwippe.eu

1.4. Emergency telephone number

+44 (0) 1235 239670

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Classification (1999/45/EEC) Xn;R20/22. C;R34. Xi;R37. R43.

Human health

Corrosive to skin and eyes. Corrosive. Prolonged contact causes serious eye and tissue damage.

2.2. Label elements

Contains BENZYL ALCOHOL
DIETHYLENETRIAMINE
ISOPHORONEDIAMINE

Labelling



Corrosive



Harmful

Risk Phrases

R20/22
R34
R37
R43

Harmful by inhalation and if swallowed.
Causes burns.
Irritating to respiratory system.
May cause sensitisation by skin contact.

Safety Phrases

S25
S26
S36/37/39
S45
S51
S60

Avoid contact with eyes.
In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
Wear suitable protective clothing, gloves and eye/face protection.
In case of accident or if you feel unwell, seek medical advice immediately (show label where possible).
Use only in well-ventilated areas.
This material and its container must be disposed of as hazardous waste.

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2.3. Other hazards

This product does not contain any PBT or vPvB substances.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2. Mixtures

1,2-CYCLOHEXANEDIAMINE	10-30%
CAS-No.: 694-83-7	EC No.:
Classification (EC 1272/2008) Not classified.	Classification (67/548/EEC) Xi;R36/37/38. R43.
2,4,6-TRIS(DIMETHYLAMINOMETHYL)PHENOL	1-5%
CAS-No.: 90-72-2	EC No.: 202-013-9
Classification (EC 1272/2008) Acute Tox. 4 - H302 Skin Irrit. 2 - H315 Eye Irrit. 2 - H319	Classification (67/548/EEC) Xn;R22 Xi;R36/38
BENZOIC ACID, 2-HYDROXY-(SALICYCLIC ACID)	1-5%
CAS-No.: 69-72-7	EC No.:
Classification (EC 1272/2008) Not classified.	Classification (67/548/EEC) Xn;R22. Xi;R36/37/38,R41.
BENZYL ALCOHOL	30-60%
CAS-No.: 100-51-6	EC No.: 202-859-9
Classification (EC 1272/2008) Acute Tox. 4 - H302 Acute Tox. 4 - H332	Classification (67/548/EEC) Xn;R20/22
DIETHYLENETRIAMINE	1-10%
CAS-No.: 111-40-0	EC No.: 203-865-4
Classification (EC 1272/2008) Acute Tox. 4 - H302 Acute Tox. 4 - H312 Skin Corr. 1B - H314 Skin Sens. 1 - H317	Classification (67/548/EEC) C;R34 Xn;R21/22 R43
HEXAMETHYLENEDIAMINE	1-5%
CAS-No.: 124-09-4	EC No.: 204-679-6

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Classification (EC 1272/2008) Acute Tox. 4 - H302 Acute Tox. 4 - H312 Skin Corr. 1B - H314 STOT Single 3 - H335	Classification (67/548/EEC) C;R34 Xn;R21/22 Xi;R37
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ISOPHORONEDIAMINE	1-10%
CAS-No.: 2855-13-2	EC No.: 220-666-8

Classification (EC 1272/2008) Acute Tox. 4 - H302 Acute Tox. 4 - H312 Skin Corr. 1B - H314 Skin Sens. 1 - H317 Aquatic Chronic 3 - H412	Classification (67/548/EEC) C;R34 Xn;R21/22 R43 R52/53
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The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

General information

Avoid contact with skin and eyes. Do not breathe vapour. In case of accident or if you feel unwell, seek medical advice immediately (show label where possible).

Inhalation

Move the exposed person to fresh air at once. When breathing is difficult, properly trained personnel may assist affected person by administering oxygen. Contact physician if discomfort continues.

Ingestion

This substance is corrosive. Drink plenty of water. DO NOT INDUCE VOMITING! If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Get medical attention immediately!

Skin contact

Remove contaminated clothing immediately and wash skin with soap and water. Contact physician if irritation persists.

Eye contact

Promptly wash eyes with plenty of water while lifting the eye lids. Continue to rinse for at least 15 minutes and get medical attention. Contact physician if discomfort continues.

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

General information

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

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

No recommendation given, but first aid may still be required in case of accidental exposure, inhalation or ingestion of this chemical. If in doubt, GET MEDICAL ATTENTION PROMPTLY!

SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing media

Extinguishing media

Fire can be extinguished using: Carbon dioxide (CO₂). Dry chemicals. Foam. Water.

5.2. Special hazards arising from the substance or mixture

Specific hazards

Avoid breathing fire vapours.

5.3. Advice for firefighters

Special Fire Fighting Procedures

Keep up-wind to avoid fumes. Keep run-off water out of sewers and water sources. Dike for water control.

Protective equipment for fire-fighters

Self contained breathing apparatus and full protective clothing must be worn in case of fire.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

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Avoid contact with skin and eyes. Wear protective clothing as described in Section 8 of this safety data sheet. Provide adequate ventilation.

6.2. Environmental precautions

Do not allow ANY environmental contamination. Do not discharge into drains, water courses or onto the ground. Spillages or uncontrolled discharges into watercourses must be IMMEDIATELY alerted to the Environmental Agency or other appropriate regulatory body.

6.3. Methods and material for containment and cleaning up

Absorb with sand or other inert absorbent. Transfer to a container for disposal. Containers with collected spillage must be properly labelled with correct contents and hazard symbol.

6.4. Reference to other sections

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

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

Use only in well-ventilated areas. Keep away from heat, sparks and open flame. Avoid contact with skin and eyes. Do not eat, drink or smoke when using the product. Observe good chemical hygiene practices.

7.2. Conditions for safe storage, including any incompatibilities

Store in tightly closed original container in a dry, cool and well-ventilated place.

7.3. Specific end use(s)

The identified uses for this product are detailed in Section 1.2.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Name	STD	TWA - 8 Hrs		STEL - 15 Min		Notes
DIETHYLENETRIAMINE	WEL	1 ppm(Sk)	4.3 mg/m3(Sk)			

WEL = Workplace Exposure Limit.

Ingredient Comments

WEL = Workplace Exposure Limits

8.2. Exposure controls

Protective equipment



Process conditions

Provide eyewash, quick drench.

Engineering measures

Provide adequate general and local exhaust ventilation.

Respiratory equipment

If ventilation is insufficient, suitable respiratory protection must be provided. Use respiratory equipment with gas filter, type K.

Hand protection

Protective gloves are recommended.

Eye protection

Wear approved chemical safety goggles where eye exposure is reasonably probable.

Hygiene measures

Keep away from food, drink and animal feeding stuffs. Good personal hygiene is necessary. Wash hands and contaminated areas with water and soap before leaving the work site. Do not eat, drink or smoke when using the product. Change work clothing daily before leaving work place.

Skin protection

Protection suit must be worn.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

BRUSHABLE CERAMIC RED HARDENER

Appearance	Liquid
Colour	Amber.
Odour	Amine.
Solubility	Miscible with water
Initial boiling point and boiling range	>204
Relative density	1.05 20 °C
Vapour density (air=1)	>1
Vapour pressure	<1mmHg 20
Evaporation rate	<<1
pH-Value, Diluted Solution	10.5-11.5 5%
Flash point (°C)	93
Flammability Limit - Lower(%)	N/D
Flammability Limit - Upper(%)	N/D

9.2. Other information

Not available.

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity

Acids. Strong oxidising substances. Organic peroxides/hydroperoxides.

10.2. Chemical stability

Stable under normal temperature conditions and recommended use.

10.3. Possibility of hazardous reactions

Hazardous Polymerisation

Will not polymerise.

10.4. Conditions to avoid

Avoid heat, flames and other sources of ignition. Avoid excessive heat for prolonged periods of time. Avoid exposure to high temperatures or direct sunlight.

10.5. Incompatible materials

Materials To Avoid

Avoid contact with acids and oxidising substances. Organic peroxides/hydroperoxides. Inorganic peroxides.

10.6. Hazardous decomposition products

Fire or high temperatures create: Nitrous gases (NO_x). Oxides of: Carbon monoxide (CO). Carbon dioxide (CO₂). Vapours/gases/fumes of: Ammonia or amines.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Inhalation

Vapours may irritate throat and respiratory system and cause coughing.

Ingestion

Causes burns. Harmful if swallowed. May cause severe internal injury. Irritating. May cause nausea, stomach pain and vomiting.

Skin contact

May be absorbed through the skin. Causes burns. May cause sensitisation by skin contact. Harmful in contact with skin.

Eye contact

Strongly corrosive. Causes severe burns. Immediate first aid is imperative. Risk of corneal damage.

Health Warnings

This substance is corrosive.

Target Organs

Liver Kidneys Central nervous system

Name

1,2-CYCLOHEXANEDIAMINE

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity

Avoid releasing to the environment.

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12.1. Toxicity

Acute Fish Toxicity

Not considered toxic to fish.

12.2. Persistence and degradability

Degradability

There are no data on the degradability of this product.

12.3. Bioaccumulative potential

Bioaccumulative potential

No data available on bioaccumulation.

12.4. Mobility in soil

Mobility:

Do not discharge into drains, water courses or onto the ground.

12.5. Results of PBT and vPvB assessment

This product does not contain any PBT or vPvB substances.

12.6. Other adverse effects

Not available.

SECTION 13: DISPOSAL CONSIDERATIONS

General information

When handling waste, consideration should be made to the safety precautions applying to handling of the product.

13.1. Waste treatment methods

Dispose of waste and residues in accordance with local authority requirements.

Waste Class

08 04 99

SECTION 14: TRANSPORT INFORMATION

General

No other information noted.

14.1. UN number

UN No. (ADR/RID/ADN) 2735

UN No. (IMDG) 2735

UN No. (ICAO) 2735

14.2. UN proper shipping name

Proper Shipping Name AMINES, LIQUID, CORROSIVE, N.O.S. or POLYAMINES, LIQUID, CORROSIVE, N.O.S (HEXAMETHYLENEDIAMINE, DIETHYLENTRIAMINE)

14.3. Transport hazard class(es)

ADR/RID/ADN Class 8

ADR/RID/ADN Class Class 8: Corrosive substances.

ADR Label No. 8

IMDG Class 8

ICAO Class/Division 8

Transport Labels



14.4. Packing group

ADR/RID/ADN Packing group III

IMDG Packing group III

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ICAO Packing group

III

14.5. Environmental hazards

Environmentally Hazardous Substance/Marine Pollutant

No.

14.6. Special precautions for user

EMS F-A, S-B

Emergency Action Code 3X

Hazard No. (ADR) 80

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

No information required.

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.

Water hazard classification

WGK 1

15.2. Chemical Safety Assessment

No chemical safety assessment has been carried out.

SECTION 16: OTHER INFORMATION

Revision Date 12/08/2011

Revision 3

Supersedes date 10/10/2008

Date 21/07/2011

Risk Phrases In Full

R34 Causes burns.

R20/22 Harmful by inhalation and if swallowed.

R22 Harmful if swallowed.

R21/22 Harmful in contact with skin and if swallowed.

R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

R36/38 Irritating to eyes and skin.

R36/37/38 Irritating to eyes, respiratory system and skin.

R37 Irritating to respiratory system.

R43 May cause sensitisation by skin contact.

R41 Risk of serious damage to eyes.

Hazard Statements In Full

H319 Causes serious eye irritation.

H314 Causes severe skin burns and eye damage.

H315 Causes skin irritation.

H332 Harmful if inhaled.

H302 Harmful if swallowed.

H312 Harmful in contact with skin.

H412 Harmful to aquatic life with long lasting effects.

H317 May cause an allergic skin reaction.

H335 May cause respiratory irritation.

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.