

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH) This SDS is for generic information purposes and does not reflect required country specific information for OEL

**HARDENER EPONAL 342** Revision Date 18-Jul-2017 Supercedes Date: 03-May-2017

Version 2

# Section 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

#### 1.1. Product Identifier

**Product Name** HARDENER EPONAL 342

Pure substance/mixture Mixture

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

Recommended use Epoxy curing agent. None known. Uses advised against

### 1.3. Details of the supplier of the safety data sheet

#### **Company Name**

Bostik SA Immeuble "Le Jade" 253 Avenue du President Wilson 93211 La Plaine Saint Denis France

Tel: +33 (0)1 55 99 90 00 Fax: +33 (0)1 55 99 90 01

SDS.box-EU@bostik.com E-mail address

### 1.4. Emergency telephone number

**Emergency Telephone** No information available

# Section 2: HAZARD IDENTIFICATION

### 2.1. Classification of the substance or mixture

### Classification according to Regulation (EC) No. 1272/2008 [CLP]

Acute toxicity - Oral	Category 4 - (H302)
Acute toxicity - Inhalation (Vapours)	Category 4 - (H332)
Skin Corrosion/Irritation	Category 1 Sub-category B - (H314)
Serious eye damage/eye irritation	Category 1 - (H318)
Skin sensitisation	Category 1 - (H317)
Chronic aquatic toxicity	Category 3 - (H412)

### 2.2. Label Elements

### Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Contains: Isophorone diamine, Benzyl alcohol, Benzyldimethylamine

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### Signal Word DANGER

### **Hazard statements**

H302 - Harmful if swallowed

H314 - Causes severe skin burns and eye damage

H317 - May cause an allergic skin reaction

H332 - Harmful if inhaled

H412 - Harmful to aquatic life with long lasting effects

### Precautionary Statements - EU (§28, 1272/2008)

P280 - Wear protective gloves/protective clothing/eye protection/face protection

P260 - Do not breathe vapour

P303 + P361 + P353 - IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower

P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

P310 - Immediately call a POISON CENTER or doctor/physician

P301 + P330 + P331 - IF SWALLOWED: rinse mouth. Do NOT induce vomiting

P501 - Dispose of contents/ container to an approved waste disposal plant

### **Additional information**

This product requires tactile warnings if supplied to the general public

### 2.3. Other Hazards

# **General Hazards**

No information available.

### PBT and vPvB assessment

This preparation contains no substance considered to be persistent, bio-accumulating nor toxic (PBT) or to be very persistent or very bioaccumulating (vPvB)

### Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

### 3.1 Substances

Mixture

# 3.2 Mixtures

Chemical Name	EC No	CAS No	Weight-%	Classification according to Regulation (EC) No. 1272/2008 [CLP]	Specific concentration limit (SCL)	REACH Registration Number
Isophorone diamine	220-666-8	2855-13-2	>25 - <40	Acute Tox. 4 (H302) Acute Tox. 4 (H312) Skin Corr. 1B (H314) Eye Dam. 1 (H318)		01-2119514687-32 -XXXX

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				Skin Sens. 1 (H317) Aquatic Chronic 3 (H412)	
Benzyl alcohol	202-859-9	100-51-6	>25 - <40	Acute Tox. 4 (H302) Acute Tox. 4 (H332) Eye Irrit. 2 (H319)	01-2119492630-38 -XXXX
Benzyldimethylamine	203-149-1	103-83-3	5 - <10	Acute Tox. 4 (H302) Acute Tox. 4 (H312) Acute Tox. 3 (H331) Skin Corr. 1B (H314) Aquatic Chronic 3 (H412) Flam. Liq. 3 (H226)	01-2119529232-48 -XXXX

Full text of H- and EUH-phrases: see section 16

Note: ^ indicates not classifed, however, the substance is listed in section 3 as it has an OEL.

This product does not contain candidate substances of very high concern at a concentration >=0.1% (Regulation (EC) No. 1907/2006 (REACH), Article 59)

# Section 4: FIRST AID MEASURES

# 4.1. Description of first aid measures

General Advice Remove/Take off immediately all contaminated clothing. If medical advice is needed,

have product container or label at hand.

**Inhalation** Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get

medical attention if symptoms occur.

**Skin Contact** Wash off immediately with soap and plenty of water. Get medical attention if symptoms

occur.

**Eye contact** Immediately flush with plenty of water. After initial flushing, remove any contact lenses

and continue flushing for at least 15 minutes. Hold eyelids apart and consult an

physician.

**Ingestion** If swallowed, do not induce vomiting: seek medical advice immediately and show this

container or label. If swallowed, rinse mouth with water (only if the person is conscious).

**Self-protection of the first aider** First aider: Pay attention to self-protection.

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

Symptoms None known.

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

Note to doctors None.

# Section 5: FIRE-FIGHTING MEASURES

### 5.1. Extinguishing media

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Suitable Extinguishing Media

Carbon dioxide (CO2). Extinguishing powder. Water spray or fog. Alcohol resistant foam.

# **Unsuitable Extinguishing Media**

Full water jet

### 5.2. Special hazards arising from the substance or mixture

Thermal decomposition can lead to release of toxic/corrosive gases and vapours. Carbon monoxide. Carbon dioxide (CO2). Nitrogen oxides (NOx). Ammonia.

### 5.3. Advice for firefighters

In case of fire: Wear self-contained breathing apparatus. Do not allow run-off from fire-fighting to enter drains or water courses.

### Section 6: ACCIDENTAL RELEASE MEASURES

### 6.1. Personal precautions, protective equipment and emergency procedures

#### **Personal Precautions**

Avoid contact with skin, eyes or clothing. Use personal protection equipment. Avoid breathing vapours or mists.

### For emergency responders

Use personal protection recommended in Section 8.

#### 6.2. Environmental precautions

Prevent entry into waterways, sewers, basements or confined areas. Do not allow to enter into soil/subsoil.

### 6.3. Methods and material for containment and cleaning up

Methods for Containment Contain and collect spillage with non-combustible absorbent material, (e.g. sand, earth,

diatomaceous earth, vermiculite) and place in container for disposal according to local /

national regulations (see Section 13).

Methods for cleaning up Take up mechanically, placing in appropriate containers for disposal. Clean

contaminated surface thoroughly. Use personal protective equipment as required. Dam up. Cover liquid spill with sand, earth or other non-combustible absorbent material. Soak

up with inert absorbent material. After cleaning, flush away traces with water.

6.4. Reference to other sections

Reference to other sections Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Section 13: DISPOSAL CONSIDERATIONS

### Section 7: HANDLING AND STORAGE

### 7.1. Precautions for safe handling

# Advice on safe handling

Use only in well-ventilated areas. Avoid contact with skin, eyes or clothing. Use personal protective equipment as required. Special Precautions. For mixing of both components:. Please refer also to Safety Data Sheet of Part B. For application method and dose rate, refer to the technical data sheet. Important: Do not leave mixed material in the container - curing in bulk can lead to excessive heat. Fire prevention measures. No special measures are necessary.

### **General Hygiene Considerations**

Avoid contact with skin, eyes or clothing. Handle in accordance with good industrial hygiene and safety practice. Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling. Take off immediately all contaminated clothing and wash it before reuse.

### 7.2. Conditions for safe storage, including any incompatibilities

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**Storage Conditions** 

Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from food, drink and animal feedingstuffs.

### 7.3. Specific end use(s)

# Specific Use(s)

Hardener.

#### OTHER INFORMATION

Recommendation(s). Observe technical data sheet.

### Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1. Control parameters

Only European Community Occupational Exposure Limits will be shown in this document. Please refer to regional SDS for further information.

**Derived No Effect Level (DNEL)** No information available

Predicted No Effect Concentration No information available.

(PNEC)

8.2. Exposure controls

Provide local exhaust ventilation. in the case of spray application. Please refer also to **Engineering Controls** 

Safety Data Sheet of Part A.

**Personal Protective Equipment** 

**Eye/Face Protection** Wear safety glasses with side shields (or goggles). Wear chemical splash goggles and

face shield when eye and face contact is possible due to splashing or spraying of

material.

**Hand Protection** Wear suitable gloves. Gloves must conform to standard EN 374. Recommended Use:.

> Nitrile rubber. Butyl rubber. Unsuitable protective clothing. Leather. Disposable gloves. Break through time. The breakthrough time of the gloves depends on the material and the thickness as well as the temperature. Ensure that the breakthrough time of the glove material is not exceeded. Refer to glove supplier for information on breakthrough time for

specific gloves.

**Skin and Body Protection** 

Wear suitable protective clothing.

**Respiratory Protection** 

In case of inadequate ventilation wear respiratory protection. During spraying wear suitable respiratory equipment. For short term use:. Filtering device (DIN EN 147).

Wear a respirator conforming to EN 140 with Type A/P2 filter or better. **Recommended Filter type:** 

Environmental Exposure Controls Do not allow uncontrolled discharge of product into the environment.

# Section 9: PHYSICAL AND CHEMICAL PROPERTIES

### 9.1. Information on basic physical and chemical properties

**Physical State** Liquid Liquid **Appearance** Colour Colourless Odour Ammonia

No information available **Odour Threshold** 

Remarks • Method **Property** Values

No information available рΗ Melting point/freezing point No information available > 100 °C / 212 °F **Boiling Point** 

**Flash Point** > 107 °C / > 224.6 °F CC (closed cup) No information available **Evaporation Rate** 

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Flammability (solid, gas) No information available Not applicable for liquids

Flammability Limit in Air
Upper Flammability Limit
Lower Flammability Limit
Vapour Pressure
Vapour Density

No information available
No information available
No information available

Relative Density 0.98 - 1.02 Water Solubility Insoluble in water

Solubility in Other Solvents Completely soluble: Acetone, Methyl

Partition Coefficient
Autoignition Temperature
Decomposition Temperature
Explosive Properties
Explosive Limits
Upper

Partition Coefficient
No information available

Explosive LimitsNo information availableUpperNo information availableLowerNo information availableOxidising PropertiesNo information availableKinematic ViscosityNo information available

**Dynamic Viscosity** 70 - 130 mPa s @ 23 °C

9.2. Other information

Softening Point
Molecular Weight
Solvent content (%)
Solid content (%)
Density
Bulk Density
No information available
No information available
No information available
No Data Available
No Data Available

VOC content (%)

# Section 10: STABILITY AND REACTIVITY

# 10.1. Reactivity

None under normal use conditions.

#### 10.2. Chemical stability

Stable under normal conditions.

Explosion Data

Sensitivity to Mechanical Impact None. Sensitivity to Static Discharge None.

### 10.3. Possibility of hazardous reactions

### **Possibility of Hazardous Reactions**

After mixing the two components, the curing reaction starts. In bulk this reaction can be vigorous.

### 10.4. Conditions to avoid

None known if handled according to instructions.

### 10.5. Incompatible materials

Exothermic reaction with. Acids.

#### 10.6. Hazardous decomposition products

None under normal use and recommended storage conditions. Thermal decomposition can lead to release of toxic/corrosive gases and vapours. Ammonia. Amines.

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# Section 11: TOXICOLOGY INFORMATION

### 11.1. Information on toxicological effects

### Information on likely routes of exposure

### **Product Information**

No information or data specific to the product on this toxicological (health) effect is available.

InhalationNo Data Available.Eye contactNo Data Available.Skin ContactNo Data Available.IngestionNo Data Available.

Sensitisation May cause sensitisation by skin contact. People who suffer from skin sensitisation

problems, asthma, allergies, chronic or recurring respiratory illnesses should not be

deployed in any process using this preparation.

# Delayed and immediate effects as well as chronic effects from short and long-term exposure

**Skin Corrosion/Irritation** Irritant effect on the skin.

Serious eye damage/eye irritation Irritant effect on the eyes. Causes severe eye damage.

Sensitisation Not applicable.

Germ Cell Mutagenicity Not applicable.

Carcinogenicity Not applicable.

Reproductive Toxicity No information available.

**STOT - Single Exposure** No information available.

**STOT - Repeated Exposure** No information available.

Aspiration Hazard Not applicable.

# Numerical measures of toxicity

### **Acute Toxicity**

### The following values are calculated based on chapter 3.1 of the GHS document

ATEmix (oral) 1,485.00 mg/kg
ATEmix (dermal) 2,775.00 mg/kg
ATEmix (inhalation-dust/mist) 4.47 mg/l
ATEmix (inhalation-vapour) 18.00 mg/l

### Component Information

### Toxicity Data Data obtained on the component(s) include

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Benzyl alcohol 100-51-6	LD50 = 1620 mg/kg (Rat)	= 2 g/kg (Rabbit)	= 4.17 mg/L (Rat) 4 h
Isophorone diamine 2855-13-2	= 1040 mg/kg (Rat)	LD50 > 2000 mg/kg (Rat) OECD 402 LD50 = 1840 mg/kg (Rabbit)	-
Benzyldimethylamine 103-83-3	= 579 mg/kg (Rat)	= 1660 mg/kg ( Rabbit )	LC50 (4h) =2.052 mg/L (Rat)

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# Section 12: ECOLOGICAL INFORMATION

### 12.1. Toxicity

**Ecotoxicity** Harmful to aquatic life with long lasting effects

### **Component Information**

Data obtained on the component(s) include

Chemical Name	Algae/aquatic plants	Fish	Crustacea	M-Factor
Isophorone diamine	EC50 72 h = 37 mg/L	LC50 96 h = 110 mg/L	EC50 24 h = 42 mg/L	
2855-13-2	(Desmodesmus subspicatus)	(Leuciscus idus semi-static)	(Daphnia magna ) EC50 48 h	
			14.6 - 21.5 mg/L (Daphnia	
			magna semi-static)	
Benzyl alcohol	EC 50 (72h) = 700 mg/L	LC50 96 h = 460 mg/L	EC50 48 h = 230 mg/L (water	
100-51-6	(Pseudokirchnerella	(Pimephales promelas static)	flea)	
	subcapitata) OECD 201		·	
Benzyldimethylamine	-	LC50 96 h 35.8 - 39.9 mg/L	-	
103-83-3		(Pimephales promelas		
		flow-through)		

### 12.2. Persistence and degradability

No information available.

### 12.3. Bioaccumulative potential

No information available.

Partition coefficient No information available

12.4. Mobility in soil

Mobility in soil No information available.

### 12.5. Results of PBT and vPvB assessment

This preparation contains no substance considered to be persistent, bio-accumulating nor toxic (PBT). or to be very persistent or very bioaccumulating (vPvB).

# 12.6. Other Adverse Effects

No information available

### **Endocrine Disruptor Information**

This product does not contain any known or suspected endocrine disruptors.

# Section 13: DISPOSAL CONSIDERATIONS

### 13.1. Waste treatment methods

Waste from Residues/Unused Products

Disposal should be in accordance with applicable regional, national and local laws and

regulations.

Contaminated Packaging Handle contaminated packages in the same way as the product itself.

OTHER INFORMATION Waste codes should be assigned by the user based on the application for which the

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product was used.

# Section 14: TRANSPORTATION INFORMATION

**ADR** 

**14.1 UN/ID no** UN3267

**14.2 Proper Shipping Name**Corrosive liquid, basic, organic, n.o.s (Isophorone diamine, Benzyldimethylamine)

14.3 Hazard Class 8
Hazard Labels 8
14.4 Packing Group III

**Description** UN3267, Corrosive liquid, basic, organic, n.o.s (Isophorone diamine,

Benzyldimethylamine), 8, III, (E)

**14.5 Environmental Hazard** Not applicable

14.6 Special Provisions 274
Classification Code C7
Tunnel restriction code (E)
Limited Quantity (LQ) 5 L
ADR Hazard Id (Kemmler 80
Number)

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<u>IMDG</u>

**14.1 UN/ID no** UN3267

**14.2 Proper Shipping Name**Corrosive liquid, basic, organic, n.o.s (Isophorone diamine, Benzyldimethylamine)

14.3 Hazard Class 8
14.4 Packing Group

**Description** UN3267, Corrosive liquid, basic, organic, n.o.s (Isophorone diamine,

Benzyldimethylamine), 8, III

 14.5 Marine Pollutant
 Np

 14.6 Special Provisions
 223, 274

 Limited Quantity (LQ)
 5 L

 EmS-No
 F-A, S-B

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code No information available

RID

**14.1 UN/ID no** UN3267

**14.2 Proper Shipping Name** Corrosive liquid, basic, organic, n.o.s (Isophorone diamine, Benzyldimethylamine)

14.3 Hazard Class8Hazard Labels814.4 Packing GroupIII

**Description** UN3267, Corrosive liquid, basic, organic, n.o.s (Isophorone diamine,

Benzyldimethylamine), 8, III

**14.5 Environmental Hazard** Not applicable

Classification Code C7
14.6 Special Provisions 274
Limited Quantity (LQ) 5 L

ICAO (air)

**14.1 UN/ID no** UN3267

**14.2 Proper Shipping Name** Corrosive liquid, basic, organic, n.o.s (Isophorone diamine, Benzyldimethylamine)

14.3 Hazard Class 8
14.4 Packing Group III

**Description** UN3267, Corrosive liquid, basic, organic, n.o.s (Isophorone diamine,

Benzyldimethylamine), 8, III

14.5 Environmental Hazard Not applicable

14.6 Special Provisions A3

IATA

**14.1 UN/ID no** UN3267

**14.2 Proper Shipping Name**Corrosive liquid, basic, organic, n.o.s (Isophorone diamine, Benzyldimethylamine)

14.3 Hazard Class 8
14.4 Packing Group

**Description** UN3267, Corrosive liquid, basic, organic, n.o.s (Isophorone diamine,

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Benzyldimethylamine), 8, III

14.5 Environmental Hazard
14.6 Special Provisions
Limited Quantity (LQ)
ERG Code

Not applicable A3, A803 1 L 8L

# Section 15: REGULATORY INFORMATION

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

### **European Union**

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work

Check whether measures in accordance with Directive 94/33/EC for the protection of young people at work must be taken.

Take note of Directive 92/85/EC on the protection of pregnant and breastfeeding women at work

### Registration, Evaluation, Authorization, and Restriction of Chemicals (REACh) Regulation (EC 1907/2006)

# EU-REACH (1907/2006) - Candidate List of Substances of Very High Concern (SVHC) for Authorization in accordance with Article 59

This product does not contain candidate substances of very high concern at a concentration >=0.1% (Regulation (EC) No. 1907/2006 (REACH), Article 59)

# EU-REACH (1907/2006) - Annex XVII - Substances subject to Restriction

This product does not contain substances subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII).

#### EU-REACH (1907/2006) - Annex XIV - List of substances subject to Authorization

This product does not contain substances subject to authorisation (Regulation (EC) No. 1907/2006 (REACH), Annex XIV)

# Ozone-depleting substances (ODS) regulation (EC) 1005/2009

Not applicable

### **Persistent Organic Pollutants**

Not applicable

### National Regulations

### **France**

# Occupational Illnesses (R-463-3, France)

Chemical Name	French RG number
Isophorone diamine 2855-13-2	RG 49,RG 49bis,RG 66
Benzyl alcohol 100-51-6	RG 84

### Germany

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# Ordinance on Industrial Safety and Health - Germany - BetrSichV

No flammable liquids in accordance with BetrSichV

### Netherlands

List of Carcinogenic, mutagenic and reproductive toxin substances in accordance with Inspectorate SZW (Netherlands)

Not Listed

#### 15.2. Chemical safety assessment

No information available

### Section 16: OTHER INFORMATION

### Key or legend to abbreviations and acronyms used in the safety data sheet

### Full text of H-Statements referred to under section 3

H302 - Harmful if swallowed

H332 - Harmful if inhaled

H319 - Causes serious eve irritation

H312 - Harmful in contact with skin

H331 - Toxic if inhaled

H314 - Causes severe skin burns and eye damage

H412 - Harmful to aquatic life with long lasting effects

H226 - Flammable liquid and vapour

H318 - Causes serious eye damage

H317 - May cause an allergic skin reaction

#### Legend

SVHC: Substances of Very High Concern for Authorisation:

# Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

TWA TWA (time-weighted average) STEL (Short Term Exposure Limit) STEL

Ceiling Maximum limit value Skin designation

PBT Persistent, Bioaccumulative, and Toxic (PBT) Chemicals STOT (RE): Specific target organ toxicity - Repeated exposure

STOT (SE): Specific target organ toxicity - Single exposure

EWC: European Waste Catalogue

### Key literature references and sources for data

Classification and labeling data calculated from data received from raw material suppliers

**Prepared By** Product Safety & Regulatory Affairs

**Revision Date** 18-Jul-2017

Indication of changes

**Revision Note** SDS sections updated: 2, 3, 11.

**Training Advice** When working with hazardous materials, regular training of operators is required by law

**Additional information** No information available

# This safety data sheet complies with the requirements of: Regulation (EC) No. 1907/2006

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of

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its publication. The information given is designed only as guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The 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, unless specified in the text.

**End of Safety Data Sheet** 

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