



## SAFETY DATA SHEET

Product: IsoBond Adhesive

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### **1. Product and Description:**

Isobond Adhesive is an aqueous acrylic emulsion used to bond Isorubber products to substrate.

#### **Company:**

Thermal Economics Ltd

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#### **Contact:**

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Emergency Tel No: 01582 450814 (available 9am to 5:30pm)

### **2. Hazard Identification**

#### **2.1 Classification of the substance or mixture**

##### **Classification (EC 1272/2008)**

Physical hazards: Not classified

Health hazards: Not classified

Environmental hazards: Not classified

Human health: The product is considered to be low hazard under normal conditions of use. May be slightly irritating to skin.

Environmental: The product is not expected to be hazardous to the environment.

Physicochemical: When handled correctly, undamaged units represent no danger.

#### **2.2 Label elements**

Hazard statements: NC Not Classified.

If you require any further technical information please contact our Technical Department on 01582 544255

### **3. Composition / information on ingredients**

<b>Name</b>	<b>EC No.</b>	<b>Content</b>	<b>CAS No.</b>	<b>Classification</b>
Limestone	215-279-6	20-35%	1317-65-3	Not Classified

The full text for all hazard statements is displayed in Section 16.

### **4. First Aid Measures**

#### **4.1 Description of first aid measures**

In case of contact with eyes:	Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes. In the event of persistent symptoms seek medical advice.
In case of contact with skin:	Remove affected person from source of contamination. Get medical attention if irritation persists after washing.
In case of ingestion:	Do not induce vomiting. Rinse mouth thoroughly. Get medical attention. Never give anything by mouth to an unconscious person.
In case of inhalation:	Move exposed person to fresh air at once. Get medical attention if irritation persists.
Protection for first aiders	First aid personnel should wear appropriate protective equipment during any rescue. It may be dangerous for first aid personnel to carry out mouth-to-mouth resuscitation.

#### **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:	No specific symptoms known.
Ingestion:	May cause stomach pain or vomiting.
Skin Contact:	No specific symptoms known.
Eye contact:	May cause temporary eye irritation.

#### **4.3 indication of any immediate medical attention and special treatment needed.**

Notes for the doctor:	No specific recommendations. If in doubt, get medical attention promptly.
Specific treatments:	Treat symptomatically.

## **5. Fire-Fighting Measures**

### **5.1 Extinguishing media**

Suitable Extinguishing Media:	Aqueous Fire-Fighting Foam Dry Fire-Extinguishing Substance Carbon Dioxide Water spray, fog or mist.
Specific Hazards:	Fire creates irritating gases (Carbon Dioxide and Carbon Monoxide).

### **5.2 Special hazards arising from the substance of mixture**

Specific Hazards: Thermal decomposition or combustion products may include the following substances: Irritating gasses or vapours. Carbon dioxide (CO<sub>2</sub>). Carbo monoxide (CO).

Hazardous combustion products: Does not decompose when used and stored as recommended.

### **5.3 Advice for firefighters**

Protective actions during firefighting: Use water to keep fire exposed containers cool and disperse vapours.

Special protective equipment: Use air-supplied respirator, gloves and protective goggles.

## **6. Accidental Release Measures**

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

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

### **6.2 Environmental precautions**

Avoid discharge into drains or watercourses or onto the ground.

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

Absorb in vermiculite, dry sand or earth and place into containers. Avoid the spillage or runoff entering drains, sewers or watercourses.

### **6.4 Reference to other sections**

For personal protection, see section 8.

## **7. Handling & Storage Instructions**

### **7.1 Precautions for safe handling**

Usage precautions: Avoid spilling, skin contact and eye contact.

General advice: Provide eyewash station. Good personal hygiene procedures should be implemented.

### **7.2 Conditions for safe storage, including incompatibilities**

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

Storage class: Unspecified storage.

### **7.3 Specific end use(s)**

The identified uses for this product are detailed in Section 1.

## **8. Personal protection & Exposure Control**

### **8.1 Control parameters**

Occupational exposure limits

#### **Limestone**

Long-term exposure limit (8-hour TWA): WEL 10mg/m<sup>3</sup>

#### **Ammonia...%**

Long-term exposure limit (8-hour TWA): WEL 25ppm 18mg/m<sup>3</sup>

Short-term exposure limit (15-minute): WEL 35ppm 25mg/m<sup>3</sup>

#### **Reaction mass of 5-Chloro-2-Methyl-2H-Isothiazolin-3-one + 2-Methyl-2H-Isothiazolin-3-one**

Long-term exposure limit (8-hour TWA): WEL 0.2mg/m<sup>3</sup>

WEL = Workplace Exposure Limit.



#### **Ammonia...% (CAS: 1336-21-6)**

DNEL  
 Industry- Dermal; Short term systemic effects: 6.8mg/kg/day  
 Industry- Inhalation; Short term systemic effects: 47.6mg/m<sup>3</sup>  
 Industry- Inhalation; Short term local effects: 36mg/m<sup>3</sup>  
 Industry- Dermal; Long term systemic effects: 6.8mg/kg/day  
 Industry- Inhalation; Long term local effects: 14mg/m<sup>3</sup>

PNEC  
 Fresh water; 0.0011mg/l  
 Marine water; 0.0011mg/l

## **8.2 Exposure controls**

### **Personal Protective Equipment**

Appropriate engineering controls:	Provide adequate general and local exhaust ventilation.
Eye/face protection:	Wear chemical splash goggles. Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible. PPE for eye and face protection should comply with European Standard EN116.
Hand protection:	Chemical-resistant, impervious gloves complying with an approved standard should be worn if risk assessment indicates skin contact is possible. It is recommended that gloves are made of Nitrile rubber. To protect hands from chemicals, gloves should comply with European Standard EN374. The selected gloves should have a breakthrough time of at least 6 hours.
Other Skin and body protection:	Avoid contact with skin. Wear appropriate clothing to prevent skin contamination.
Hygiene Measures:	Wash at the end of each work shift and before eating, smoking or using the toilet. Do not smoke in work area.
Respiratory protection:	If ventilation is inadequate, suitable respiratory protection must be worn. Wear a respirator fitted with the following cartridge: Combination filter, type A2/P3. Ensure all respiratory protective equipment is suitable for its intended use and is CE marked.
Thermal hazards:	Contact with hot product can cause serious thermal burns.
Environmental exposure controls:	Keep container tightly sealed when not in use.
 	

## **9. Physical and chemical properties**

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

Appearance:	Liquid
Colour:	White / off white
Odour:	Pleasant, agreeable
Odour threshold:	Not relevant
pH:	pH (concentrated solution): 8.0
Melting point:	Not available
Boiling Point (°C):	100°C @ 760 mm Hg
Flash point:	No information required
Evaporation rate:	NA
Evaporation factor:	NA
Flammability (solid, gas):	NA
Upper/lower Flammability or Explosive limits:	Not relevant
Other flammability:	NA
Vapour pressure:	NA
Vapour density:	NA
Relative density:	1.02 – 1.04@ 20°C
Bulk density:	NA
Solubility(ies):	Not determined. Miscible with water.
Partition coefficient:	NA
Auto-ignition temperature:	NA
Decomposition temperature:	Not determined
Viscosity:	160,000-240,000 cps 20°C
Explosive properties:	No information available
Explosive under the influence of a flame:	No
Oxidising properties:	NA
Comments:	Information declared as “Not available” or “Not applicable” is not considered to be relevant to the implementation of the proper control measures.

### **9.2 Other information**

Refractive index:	Not relevant
Particle size:	Not available
Molecular weight:	Not available
Volatility:	NA
Saturation concentration:	Not available
Critical temperature:	Not available
Volatile organic compound:	Not relevant

## **10. Stability and Reactivity**

### **10.1 Reactivity**

There are no known reactivity hazards associated with this product.

### **10.2 Chemical stability**

Stable at normal ambient temperatures and when used as recommended.

**10.3 Possibility of hazardous reactions**

Not applicable. Not relevant.

**10.4 Conditions to avoid**

Avoid exposure to high temperatures or direct sunlight.

**10.5 Incompatible materials**

Avoid contact with the following materials: Some metals.

**10.6 Hazardous decomposition products**

Thermal decomposition or combustion products may include the following substances:  
Irritating gases or vapours. Oxides of carbon.

**11. Toxicological Information****11.1 Information on toxicological effects**

Toxicological effects:	No data recorded.
Acute toxicity – oral Notes (oral LD <sub>50</sub> )	Not determined.
Acute toxicity – dermal Notes (dermal LD <sub>50</sub> )	Not determined.
Acute toxicity – inhalation Notes (inhalation LC <sub>50</sub> )	Not determined.
Skin corrosion / irritation:	
Animal data:	Not determined.
Human Skin model test:	Not determined.
Extreme pH:	Not applicable.
Serious eye damage / irritation:	Based on available data the classification criteria are not met.
Respiratory sensation:	Based on available data the classification criteria are not met.
Skin sensation:	Based on available data the classification criteria are not met.
<b><u>Germ cell mutagenicity</u></b>	
Genotoxicity – in vitro	Based on available data the classification criteria are not met.
Genotoxicity – in vivo	Based on available data the classification criteria are not met.
Carcinogenicity:	Not applicable.

Reproductive toxicity – fertility:	Based on available data the classification criteria are not met.
Reproductive toxicity – development:	Does not contain any substances known to be toxic to reproduction.
Specific target organ toxicity – STOT single exposure:	Based on available data the classification criteria are not met.
Test organs:	Not relevant
Specific target organ toxicity – STOT repeated exposure:	Based on available data the classification criteria are not met.
Test organs:	Not relevant.
Aspiration hazard:	Not relevant.
General Information:	No specific health hazards known.
Inhalation:	No specific health hazards known.
Ingestion:	No specific health hazards known.
Skin contact:	Skin irritation should not occur when used as recommended.
Eye contact:	Particles in the eyes may cause irritation and smarting.
Acute and chronic health hazards:	No specific health hazards known.
Route of exposure:	Skin and / or eye contact.
Target organs:	Not relevant.
Medical symptoms:	No specific symptoms known.

#### Toxicological information on ingredients

##### Terpene Phenolic Resin Emulsion

Acute toxicity – oral (LD <sub>50</sub> mg/kg):	2,005.0
Species:	Rat
ATE oral (mg/kg)	2,005.0

##### Polyacrylate Thickener

Acute toxicity – oral (LD <sub>50</sub> mg/kg):	2,005.0
Species:	Rat
ATE oral (mg/kg)	2,005.0

Acute toxicity – dermal (LD <sub>50</sub> mg/kg):	2,005.0
Species:	Rat
ATE dermal (mg/kg)	2,005.0

##### Ammonia...%

Acute toxicity – oral (LD <sub>50</sub> mg/kg):	350.0
Species:	Rat
ATE oral (mg/kg)	350.0



Acute toxicity ATE dermal (mg/kg): 1,100.0

## **12. Ecological Information**

The product components are 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.

### **12.1 Toxicity**

#### Acute aquatic toxicity

Acute toxicity – fish:	Not determined.
Acute toxicity – aquatic invertebrates:	Not determined.
Acute toxicity – aquatic plants:	Not determined.
Acute toxicity – microorganisms:	Not determined.
Acute toxicity – terrestrial:	Not determined.

#### Chronic aquatic toxicity

Chronic toxicity – fish early life stage:	Not determined.
Short term toxicity – embryo and sac fry stages:	Not determined.
Chronic toxicity – aquatic Invertebrates:	Not determined.

#### Ecological information on ingredients

Polyacrylate Thickener

#### Acute aquatic toxicity

Acute toxicity – fish:	LC <sub>50</sub> , 96 hours:> 100mg/l, Freshwater fish.
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### **12.2 Persistence and degradability**

The product contains inorganic substances which are not biodegradable. The other substances in the product are slowly biodegradable.

Photo transformation:	Not determined.
Stability (hydrolysis):	Not determined.
Biodegradation:	Inherently biodegradable.
Biological oxygen demand:	Not determined.
Chemical oxygen demand:	Not determined.

### **12.3 Bioaccumulative potential**

Bioaccumulative potential:	No data available on bioaccumulation.
Partition coefficient:	Not available.

**12.4 Mobility in soil**

Mobility: The product is partly miscible with water and may spread in the aquatic environment.

Adsorption / desorption

coefficient: Not determined.

Henry's law constant: Not determined.

Surface tension: Not determined.

**12.5 Results of PBT and vPvB assessment**

This product does not contain any substances classified as PBT or vPvB.

**12.6 Other adverse effects**

None known.

**13. Disposal oconsiderations****13.1 Waste treatment methods**

General information: Dispose of waste product or used containers in accordance with local regulations.

Disposal methods: Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

**14. Transport Information**

The product is not covered by international regulation on the transport of dangerous goods (IMDG, IATA, ADR/RID).

**14.1 UN number****14.2 UN proper shipping name****14.3 Transport hazard class(es)**

Transport labels: No Transport warning sign required.

**14.4 Packing group****14.5 Environmental hazards**

Environmentally hazardous substance / marine pollutant: No

**14.6 Special precautions for user****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 / specific for the substance or mixture**

National regulations: Rivers (Prevention of pollution) Act 1961.

Control of Substances Hazardous to Health Regulations 2002 (as amended).

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 (as amended).  
Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended).

Guidance: Safety Data Sheets for Substances and Preparations.

Authorisations  
(Annex XIV  
Regulation

1907/2006): No specific authorisations are known for this product.

Restrictions  
(Annex XVII  
Regulation

1907/2006): No specific authorisations are known for this product.

### **15.2 Chemical safety assessment**

No chemical safety assessment has been carried out.

## **16. Additional Information**

Abbreviations and acronyms used in the safety data sheet

ATE:	Acute Toxicity Estimate.
ADR:	European Agreement concerning the International Carriage of Dangerous Goods by Road.
CAS:	Chemical Abstracts Service.
DNEL:	Derived No Effect Level.
GHS:	Globally Harmonized System.
IATA:	International Air Transport Association.
ICAO:	Technical Instructions for the Safe Transport of Dangerous Goods by Air.
IMDG:	International Maritime Dangerous Goods.
Kow:	Octanol-water partition coefficient.
LC <sub>50</sub> :	Lethal Concentration to 50% of test population.
LD <sub>50</sub> :	Lethal Dose to 50% of a test population (median Lethal Dose).
PBT:	Persistent, Bioaccumulative and Toxic substance.
PNEC:	Predicted No Effect Concentration.
REACH:	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006.
RID:	European Agreement concerning the International Carriage of Dangerous Goods by Rail.
SVHC:	Substances of Very High Concern.
vPvB:	Very Persistent and Very Bioaccumulative.
IARC:	International Agency for Research on Cancer.

MARPOL 73/78:	International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978.
cATpE:	Converted Acute Toxicity Point Estimate.
BCF:	Bioconcentration Factor.
BOD:	Biochemical Oxygen Demand.
EC <sub>50</sub> :	50% of the maximal Effective Concentration.
LOAEC:	Lowest Observed Adverse Effect Concentration.
LOAEL:	Lowest Observed Adverse Effect Level.
NOAEC:	No Observed Adverse Effect Concentration.
NOAEL:	No Observed Adverse Effect Level.
NOEC:	No Observed Effect Concentration.
LOEC:	Lowest Observed Effect Concentration.
DMEL:	Derived Minimal Effect Level.
UN:	United Nations.
IBC:	International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk (International Bulk Chemical Code).

Key literature references and sources for data:

Dangerous Properties of Industrial Materials Report, NSax et.al.

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