



HS20 RegaBond XL 500gm UV CURING ADHESIVE March 2008

RegaBond XL 500gm UV Curing Polymeric Adhesive

1. IDENTIFICATION OF SUBSTANCE OR PREPARATION

Product: RegaBond XL. 500gm UV Curing Polymeric Adhesive.

Application: Bonding decorative Glass Bevels to glass.

RegaLead Ltd

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2. COMPOSITION/INFORMATION - HAZARDOUS INGREDIENTS

Urethane Acrylate Oligomer: Content 30-60%

EC No: Proprietary

CAS: Proprietary

Classification: Xi R36/37/38

Isobornyl Acrylate: Content 10-30%

EC No: 227-561-6

CAS: 5888-33-6

Classification: Xi R36/37/38

2-Hydroxy Ethyl Methacrylate: Content 10-30%

EC No: 212-782-2

CAS: 868-77-9

Classification: Xi R43: R36/38

Acrylic Acid: Content 1-5%

EC No: 201-177-9

CAS: 79-10-7

Classification: C:R10 : Xn R35; R20/21/22 R 50

Methyl Methacrylate: Content 1 – 5%

EC No: 201-297-1

CAS: 80-62-6

Classification: F; R 10 R43 Xi; R37/38

Trimethoxysilane Content: 1-5%

EC No: 219-795-8

CAS: 2530-85-0

Classification: Xn; R22; Xi: R36 R43

Full text for all R – Phrases as displayed in section 16

3. HAZARDS IDENTIFICATION

Some individuals may be, or become sensitized to Acrylates. Irritating to eyes respiratory system and skin. May cause sensitization by skin contact.

4. FIRST AID MEASURES

In any doubt or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person.

Inhalation

Remove to fresh air, keep the patient warm and at rest. If breathing has stopped, administer artificial respiration. Give nothing by mouth. If unconscious place in a prone position with head to the side (recovery position) and seek medical advice.

Ingestion

If accidentally swallowed, obtain immediate medical attention, preferably at the nearest hospital accident emergency unit. Show this safety data sheet. Keep at rest. Do NOT induce vomiting. If conscious, give milk or water to drink.

Skin Contact

Remove contaminated clothing. Wash skin thoroughly with soap and water or use a proprietary skin cleaner. Do NOT use solvents or thinners. In the case of accidental skin contact avoid concurrent exposure to sunlight or other sources of UV radiation which may increase the sensitivity of the skin. Effects due to exposure may be delayed.

Eyes

Contact lenses should be removed. Irrigate copiously with clean, fresh water for at least 10 minutes, holding the eyelids apart, and seek medical advice. In the case of accidental eye contact avoid concurrent exposure to sunlight or other sources of UV radiation which may increase the sensitivity of the eyes.

5. FIRE FIGHTING MEASURES

Extinguishing Media

Recommended: alcohol resistant foam, carbon dioxide, powder, water spray/mist.

Not to be used: water jet.

Combustible Products

Cool closed containers exposed to fire with water spray. Do not allow run-off from fire fighting to enter drains or water courses.

Specific Hazards

Fire will produce dense black smoke containing hazardous product of combustion (see Section 10). Decomposition products may be a hazard to health.

Protective Measures

Appropriate self-contained breathing apparatus may be required.

6. ACCIDENTAL RELEASE MEASURES (SPILLAGE)

Personal Precautions

Exclude sources of ignition and ventilate the area. Warn others of the dangers present and exclude non-essential personnel. Avoid breathing vapours and contact with skin and eyes. Floors may become slippery. Refer to protective measures listed in Sections 7 and 8.

Spill clean up methods

Exposure to daylight may cause the spilled coating to harden within minutes. Contain and collect spillages with non-combustible absorbent materials, eg, sand, earth, vermiculite, diatomaceous earth and place in a clearly labelled suitable container for disposal in accordance with the waste regulations (see Section 13). Do not allow to enter drains or water courses. Clean preferably with a detergent; avoid the use of solvents.

Environmental Precautions

If the product enters drains or sewers the local water company should be contacted immediately; in the case of contamination of stream, rivers or lakes, the relevant environment agency.

7. STORAGE AND HANDLING (IN NORMAL USE)

Usage Precautions

SKIN CONTACT CONSTITUTES THE MOST PRONOUNCED HAZARD. PERSONS WITH A HISTORY OF SKIN SENSITISATION

PROBLEMS SHOULD ONLY BE EMPLOYED IN PROCESSES IN WHICH THIS PRODUCT IS USED UNDER APPROPRIATE MEDICAL SUPERVISION.

Storage Precautions

Observe the label precautions. Store between 5 and 25 deg C in a dry, well ventilated place away from sources of heat, ignition and direct sunlight. No smoking. Prevent unauthorised access. Containers which are opened should be properly resealed and kept upright to prevent leakage. The principles contained in the HSE's guidance note HS(G)71 "Storage of Packaged Dangerous Substances" should be observed when storing this product. Store separately from oxidising agents and strongly alkaline and strongly acidic materials. Although the storage of this product is not subject to specific statutory requirements, the principles contained in HSE guidance note (HS(G)51 "Storage of Flammable liquids in Containers") should be observed.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Name	Std	LT-ppm	LT-mg/m ³	ST ppm	ST mg/m ³
Acrylic Acid	OES	10 ppm	30mg/m ³	20ppm	60mg/m ³
Methy Methacrylate	WEL	50ppm	208mg/m ³	100ppm	416mg/m ³

INGREDIENT COMMENTS

WEL = Workplace Exposure Limits.
OES = Occupational Exposure Standard.
MEL = Maximum Exposure Limit.
SUP = Supplier's recommendation.
ST = short term exposure limit
LT = long term exposure limit ppm = parts per millions. mg m-3 = milligram per cubic metre.
Sk = indicates a risk of absorption through skin.
Sen = indicates a respiratory sensitiser.

Protective Equipment



ENGINEERING MEASURES

SKIN CONTACT CONSTITUTES THE MOST PRONOUNCED HAZARD. PERSONS WITH A HISTORY OF SKIN SENSITISATION PROBLEMS SHOULD ONLY BE EMPLOYED IN PROCESSES IN WHICH THIS PRODUCT IS USED UNDER APPROPRIATE MEDICAL SUPERVISION.

All engineering control measures used to control exposure to hazardous substances must be selected, maintained, examined and tested to meet the requirements of the Control of Substances Hazardous to Health Regulations (COSHH). Similarly all personal protective equipment, including respiratory protective

equipment, must be selected, issued and maintained to meet the requirements of COSHH.

These requirements include the provision of any necessary information, instruction and training with regard to their use.

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/or solvent vapours below the relevant occupational exposure limits, suitable respiratory protective equipment should be worn. See "Occupational Exposure Controls" below.

Respiratory Equipment

Always use in a well ventilated space. In normal conditions no respiratory equipment required.

Hand Protection

Where skin exposure may occur wear impervious gloves, advice should be sought from glove suppliers on appropriate types, and usage times for this product. The instructions and information provided by the glove supplier on use, storage, maintenance and replacement must be followed. Barrier creams may help to protect exposed areas of the skin but are not substitutes for full physical protection. They should not be applied once exposure has occurred.

Eye Protection

Eye protection designed to protect against liquid splashes should be worn.

Skin Protection

Cotton or cotton/synthetic overalls or coveralls are normally suitable. Grossly contaminated clothing should be removed and the skin washed with soap and water or a proprietary skin cleaner. Gloves of a length to overlap the sleeves of overalls should be used. Regular skin inspection of users of this product is recommended.

ALWAYS WASH YOUR HANDS BEFORE EATING, SMOKING OR USING THE TOILET.

Environmental Exposure Controls

See section 12 for detailed information

9. PHYSICAL/CHEMICAL PROPERTIES

Appearance: Clear Liquid

Solubility: Immiscible with water

Viscosity : 735 cps Brookfield viscometer sp 3 20 rpm @ 21°C

Relative Density: 1.02 - 1.08 kg/l@ 21°C

Flash Point (°C) > 68°C

Flammability Lower Limit: (%) 0.8% vv
suggested figure

10. STABILITY AND REACTIVITY

Stability

Stable under the recommended storage and handling conditions (see Section 7).

Hazardous Polymerisation

The product contains materials which are unstable when exposed to temperatures above 50°C, sunlight, strong UV light sources, free radical initiators, peroxides, strongly alkaline and strongly acidic materials or reactive metals. Contact with these could result in uncontrolled exothermic polymerisation.

Hazardous Decomposition Products

In a fire, hazardous decomposition and products such as smoke, carbon monoxide, carbon dioxide and oxides of nitrogen may be produced.

11. TOXICOLOGICAL INFORMATION

There is no data available on the product itself. The product has been assessed following the conventional method in CHIP and is classified for toxicological hazards accordingly. This takes into account, where known, delayed and immediate effects and also chronic effects of components from short term and long term exposure by oral, inhalation and dermal routes of exposure and eye contact. See Sections 2 and 15 for details of the resulting hazard classification. Contains a substance which is classified as a skin sensitiser. Cases of hypersensitivity may occur, possibly with cross-sensitisation to other acrylate materials.

Inhalation

Inhalation of airborne droplets or aerosols may cause irritation of the respiratory tract.

Ingestion

Ingestion may lead to severe respiratory difficulties, stimulation of the central nervous system and in extreme case unconsciousness.

Skin Contact

Acrylate components have irritant properties. Prolonged or repeated contact with skin or mucous membrane may result in irritant symptoms such as redness, blistering or dermatitis. Onset of symptoms may be delayed. Cases of allergic skin reaction have been observed.

Eye Contact

Splashes in the eyes may cause irritation and reversible local damage.

12. ECOLOGICAL INFORMATION

Ecotoxicity

There is no data available on the product itself. The product should not be allowed to enter drains or water courses or be deposited where it can affect ground or surface waters. LAPC/LAPPC/IPPC requirements of regulations made under the Pollution Prevention and Control Act may apply to the use of this product. The product has been assessed following the conventional method in CHIP and is not classified as dangerous for the environment, but contains substances so classified.

See Section 3 for details.

13. DISPOSAL CONSIDERATIONS

General Information

Wastes, including emptied containers are controlled wastes and should be disposed of in accordance with regulations made under the Control of Pollution Act and the Environmental Protection Act.

Disposal Methods

Do not allow into drains or water courses or dispose of where ground or surface waters may be affected

14. TRANSPORT INFORMATION (REGULATIONS)

General

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

No transport warning sign required.

PROPER Shipping Name: Non hazardous material when shipped in limited quantities

15. REGULATORY INFORMATION (SUPPLY & LABELLING)

LABELLING



Irritant

CONTAINS 2-HYDROXYETHYL METHACRYLATE

RISK PHRASES

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

R43 May cause sensitisation by skin contact.

Safety Phrases

S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S28 After contact with skin, wash immediately with plenty of soap-suds.

S37 Wear suitable gloves.

UK Regulatory References

The Control of Substances Hazardous to Health Regulations 1999 (SI 1999 :437).

The Manual Handling Operations Regulations 1992 (SI 1992 : 2793).

Environmental Listing

The Environmental Protection (Duty of Care) Regulations 1992 (SI 1992:2839).

Guidance Notes

Further guidance on OEL's and the assessment of occupational exposure to substances hazardous to health is given in "EH40:

Occupational exposure limits" published by the HSE, Books.

COSHH Essentials: easy steps to control chemicals, HS(G)193. Details of available Control Guidance Sheets, which may be relevant to the particular conditions of use, can also be found in HS(G)193

Chemical Warehousing: Storage of Packaged Dangerous Substances, HS(G)71.

Safety in the use of inks, varnishes and lacquers cured by ultra violet light or electron beam techniques (PIAC).

16. OTHER INFORMATION

General Information

The product should not be used for purposes other than those shown in Section 1 without first referring to the supplier and obtaining written handling instruction.

As the specific conditions of use of the product are outside the supplier's control, the user is responsible for ensuring that the requirements of relevant legislation are complied with.

The information contained in this safety data sheet is based on the present state of knowledge and current national legislation.

It provides guidance on health, safety and environmental aspects of the product and should not be construed as any guarantee of technical performance or suitability for particular applications.

The information contained in this safety data sheet does not constitute the user's own assessment of workplace risks as required by other health and safety legislation.

The provisions of the Health and Safety at Work etc. Act and the Control of Substances Hazardous to Health Regulations apply to the use of this product at work. The information contained in this safety data sheet is provided in accordance with the requirements of the CHIP Regulations.

Information Sources

HSE website www.hse.gov.uk

ISSUED BY

RegaLead Ltd

Date: March 2008

RISK PHRASES IN FULL

R10 Flammable.
R20/21/22 Harmful by inhalation, in contact with skin and if swallowed.
R22 Harmful if swallowed.
R35 Causes severe burns.
R36 Irritating to eyes.
R36/37/38 Irritating to eyes, respiratory system and skin.
R36/38 Irritating to eyes and skin.
R37/38 irritating to respiratory system and skin.
R43 May cause sensitisation by skin contact.
R50 Very toxic to aquatic organisms.
R51/53 Toxic to aquatic organisms.