SDS AD23 SUPER 'CRYLIC! Adhesive

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

1.1 Product Identifier
PRODUCT NAME: Super 'Crylic ! :Adhesive

PRODUCT CODE: AD23

PRODUCT DESCRIPTION: Toughened Acrylic Adhesive

1.2 Relevant identified uses of the substance or mixture and uses advise against
Uses
Adhesive/Sealant. For professional use only.

Uses advised against
None

1.3 Details of the supplier of the safety data sheet
SUPPLIER: Deluxe Materials Ltd
Unit 13, Cuafaude Business Park
Cufaude Lane
Bramley
Hants
RG26 5DL
United Kingdom

Email info@deluxematerials.com

1.4 Emergency Telephone Number +44 (0)1256 883944

Only available during office hours: Monday to Friday 8am to 5pm UTC(0)
Language: English

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture
Product definition :mixture

Classification :
Classification according to Regulation EC No. 1272/2008 [CLP/GHS]
Flammable liquids Hazard category 2 H225

Skin Corr 1B	H314
Acute Tox 4	H302
Acute Tox 4	H312
Skin Irrit. 2	H315
Skin Sens. 1	H317
STOT – Single 3	H335
Aquatic Chronic 3	H412

Classification according to Directive 1999/45/EC [DPD]
F R11 Xn R21/22 C R34 Xi R37/38, R43

See section 16 for the full text of the R phrases or H statements declared above.

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See section 11 for more detailed information on health effects and symptoms.

2.2 label elements

Hazard Symbols

Signal Word **Warning**

HAZARD STATEMENTS

H225 Highly flammable liquid and vapour.
H302 Harmful if swallowed.
H312 Harmful in contact with skin.
H314 Causes severe skin burns and eye damage.
H315 Causes skin irritation
H317 May cause allergic skin irritation
H335 May cause respiratory irritation.
H412 Harmful to aquatic life with long lasting effects

PRECAUTIONARY STATEMENTS

P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.
P260 Do not breathing fumes/vapours.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303 + P361 + P353 IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower.
P305 + P251 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P403 + P235 Store is a well-ventilated place. Keep cool.
P501 Dispose of contents/container in accordance with local regulation.

SUPPLEMENTARY PRECAUTIONARY STATEMENTS (NOT ON LABEL)

P233 keep container tightly closed.
P240 ground/bond container and receiving equipment.
P241 use explosion-proof electrical, ventilating and lighting equipment.
P243 take precautionary measures against static discharge.
P362 take off contaminated clothing and wash before reuse.
P333 + P313 if skin irritation or rash occurs: get medical advice/attention.
P273 avoid release to the environment.
P391 Collect spillage.

SUPPLEMENTAL LABEL INFORMATION (EU)

EUH205 Contains epoxy constituents. May produce an allergic reaction.

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2.3 other hazards
There are no substances present that are classified as PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2 mixtures

Component	CAS# EINECS# INDEX# RRN:	Classification	Amount %
Methyl methacrylate	80-62-62 201-297-1 01-2119452498-28	Flam. Liq. 2; H225 Skin Irrit. 2; H315 Skin Sens. 1; H317 STOT SE 3 (inhalation); H335 F R11 Xi R37/38 R43	<50
Methacrylic acid	79-41-4 201-204-4 607-088-00-5	Acute Tox 4 H302, Acute Tox 4 H312, Skin Corr 1A H314, STOT Single 3 H335 C R35 Xn R21/22	<10
Reaction product of Epichlorohydrin and Bisphenol A	25068-38-6 300-033-5 603-074-00-8	Skin Irrit 2 H315, Skin Sens 1 H317, Eye Irrit 2 H319, Aquatic Chronic 2 H411 Xi R36/37 R43 N R51/53	<5
Ethyleneglycol dimethacrylate	97-90-5 202-617-2 607-114-00-5	Skin Sens 1 H317, STOT Single 3 H335 Xi R37, R43	<1
Alpha-alpha-dimethylbenzylhdroperoxide	80-15-9 201-254-7 617-002-00-8	Org Perox E H242, Acute Tox 4 H302, Acute Tox 4 H312, Skin Corr1B H314, Acute Tox 3 H331, STOT RE 2 H373, Aquatic Chronic 2 H411	<1
Cumene	98-82-8 202-704-5 601-024-00-X	Flam Liq 3 H226, Asp Tox 1 H304, STOT SE 3 H335, Aquatic Chronic 2 H411	<0.3
1,1,2-trichloroethylene	79-00-5 201-166-9 602-014-00-8	Acute Tox 4 H312, Accute Tox 4 H332, Carc 2 H351, STOT RE – EUH066	<0.2

There are no additional ingredients which, within the current knowledge of the supplier, are classified and contribute to the classification of the substance and hence require reporting in this section.

There are no substances present that are classified as PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII

Occupational Exposure limits, if available, are listed in section 8.

SECTION 4: FIRST AID MEASURES

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4.1 Description of first aid measures

CONTACT WITH SKIN

Remove material form skin immediately by washing with soap and plenty of water. Remove contaminated clothing and shoes while washing. Seek medical attention if irritation persists. Wash clothing before reuse. Discard items, which cannot be decontaminated, including leather articles such as shoes, belts and watchbands.

CONTACT WITH EYES

Wash immediately and continuously with flowing water for at least 30 minutes. Remove contact lenses after the first 5 minutes and continue washing. Obtain prompt medical consultation, preferably from an ophthalmologist. Eye wash fountain should be located in immediate work area.

INGESTION

Do not induce vomiting. Give one cup of water or milk if available and transport to a medical facility. Do not give anything by mouth unless the person is fully conscious.

INHALATION

Move person to fresh air. If not breathing give artificial respiration: of by mouth to mouth use rescuer protection (pocket mask, etc.). If breathing is difficult oxygen should be administered by qualified personnel. Call a physician or transport to a medical facility.

EMERGENCY PERSONNEL PROTECTION

First aid responders should pay attention to self-protection and use recommended protective clothing (chemical resistant gloves, splash protection) If potential for exposure exists refer to section 8 for specific personal protective equipment.

4.2 Most important symptoms and effects

POTENTIAL ACUTE HEALTH EFFECTS

Eye contact : Causes serious eye irritation.
Inhalation : headache, confusion
Skin contact : Causes skin Irritation. May cause allergic skin reaction.
Ingestion : Irritating to mouth, throat and stomach.

OVER EXPOSURE SIGNS/SYMPTOMS

Eye contact : Adverse symptoms may include the following:
Pain or irritation
Watering
Redness
Inhalation : headache, confusion
Skin contact : Adverse symptoms may include the following:
Irritation
Redness
Ingestion : no specific data

4.3 Indication of any immediate medical attention

Notes to physician: Treat symptomatically. Contact poison treatment specialist immediately if large

quantities have been ingested or inhaled.
Specific treatments: Symptomatic treatment and supportive therapy as indicated. Following severe exposure the patient should be kept under medical review for at least 48 hours.

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media
Water fog or fine spray. Dry chemical fire extinguishers. Carbon dioxide fire extinguishers. Foam. Do not use direct water stream. May spread fire. Alcohol resistant foams (ATC type) are preferred. General-purpose synthetic foams (including AFFF) or protein foams may function, but will be less effective.

5.2 Special hazards arising from the substance or mixture
Violent steam generation or eruption may occur upon application of direct water stream to hot liquids. Dense smoke is produced when product burns. During a fire smoke may contain the original material in addition to combustion products of varying composition which may be toxic and/or irritating. Combustion products may include and are not limited to: phenolics, Carbon monoxide, Carbon Dioxide and water.

5.3 Advice for fire-fighters

FIRE FIGHTING PROCEDURES

Keep people away. Isolate fire and deny unnecessary entry. Burning liquids may be extinguished by dilution with water. Do not use direct water stream. May spread fire. Burning liquids may be moved by flushing with water to protect personnel and minimise property damage.

SPECIAL PROTECTIVE EQUIPMENTFOR FIREFIGHTERS

Wear positive-pressure self-contained breathing apparatus (SCBA) and protective fire fighting clothing (includes fire fighting helmet, coat, trousers, boots and gloves). Avoid contact with this material during fire fighting operations. If contact is likely change to fill chemical resistant fire fighting clothing with self-contained breathing apparatus. If this is not available wear full chemical resistant clothing with self-contained breathing apparatus and fight fire from a remote location. For protective equipment in post-fire clean-up situations, refer to the relevant sections.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions protective equipment and emergency procedures personal precautions
For non-emergency personnel: No action shall be taken involving any personal risk without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
For emergency responders: if specialised clothing is required to deal with spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "for non-emergency personnel".

6.2 Environmental precautions
Prevent from entering into soil ditches sewers waterways and/or groundwater. See section 12 ecological information. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities. Collect spillage.

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6.3 Methods and material for containment and cleaning up
SMALL SPILL : Stop leak if without risk. Move containers from spill area. Absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

LARGE SPILL : Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, watercourses, basements or confined areas. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or dichotomous earth and place in container for disposal according to local regulations (see section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilt product. Note see section 1 for emergency contact information and section 13 to waste disposal.

6.4 Reference to other sections
See section 1 for emergency contact information.
See section 8 for information on appropriate personal protective equipment.
See section 13 for additional waste treatment information.

SECTION 7: HANDLING AND STORAGE

The information in this section contains generic advice and guidance. The list of Identified Uses in section I should be consulted for any available use-specific information provided in the Exposure Scenario(s).

The information in this section contains generic advice and guidance. The list of Identified Uses in section I should be consulted for any available use-specific information provided in the Exposure Scenario(s).

7.1 Precautions for safe handling
7.1.1 PROTECTIVE MEASURES : Put on appropriate personal protective equipment (see section 8). Persons with a history of skin sensitisation problems should not be employed in any process in which this product is used. Do not in get eyes or on skin or clothing. Do not ingest. Avoid breathing vapour or mist. Avoid release to the environment. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

7.1.2 ADVICE ON GENERAL : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed.

7.1.3 OCCUPATIONAL HYGIENE : Workers should wash hands and face before eating, Drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

7.2 Conditions for safe storage, including any incompatibilities
Keep only in the original container at a temperature not exceeding 30 C. Protect from light. Fill the container by approximately 90 % only as oxygen (air) is required for stabilisation. With large storage containers make sure the oxygen (air) supply is sufficient to ensure stability. Can polymerize with intense heat release.

STORAGE HAZARD CLASS : Flammable Liquid, corrosive n.o.s

7.3 Specific end uses
Adhesive/Sealant. For professional use only.

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SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

The information in this section contains generic advice and guidance. The list identified Uses in section 1 should be should be consulted for any available use-specific information provided in the Exposure Scenario(s).

8.1 Control parameters

Occupational Exposure Limits

COMPONENT	LIST	TYPE	VALUE
Methyl methacrylate		WEL (long-term) 2009	208 mg/m3 50 ppm
		WEL (short-term) 2009	
		Indicative occupational exposure limit value	416 mg/m3 100 ppm
	2009/161/EC	Indicative occupational exposure limit value (15 minutes)	50 ppm
	2009/161/EC		100 ppm
Methacrylic Acid		WEL LT	72mg/m3 20ppm
		WEL ST	143mg/m3 40ppm
Bisphenol A (epichlorohydrin) epoxy resin			Not known or no value set
cumene		WEL ST	250mg/m3 50ppm
		WEL LT	125mg/m3 25ppm

RECOMMENDED MONITORING procedures: If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of he ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to European Standard EN689 for methods for the assessment of exposure by inhalation to chemical agents and national guidance documents for methods for the determination of hazardous substances.

Derived No-Effect Levels' (DNEL's) and Predicted No-Effect Concentrations' (PNEC's)

Explanatory note:
REACH requires manufacturers and importers to establish and report 'Derived No-Effect Levels' (DNEL's) for humans by inhalation, ingestion and dermal routes of exposure and 'Predicted No-Effect Concentrations' (PNEC's) for environmental exposure. DNEL's and PNEC's are established by the registrant without an official consultation process, and are not intended to be directly used for setting workplace or general population exposure limits. They are primarily used as input values in running Quantitative Risk Assessment models (like the ECETOC-TRA model). Due to differences in calculation methodology the DNEL will tend to be lower (sometimes significantly) than any corresponding health-based OEL for that chemical substance. Further although DNEL's (and PNEC's) are an indication for setting risk reduction measures, it should be recognized that these limits do not have the same regulatory application as officially endorsed governmental OEL's.

DNELs

Ingredient name	Exposure /Effects	DNELs	Population
Methyl methacrylate	Inhalation long term	210mg/m3	Industry

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	Dermal long term Dermal short term Inhalation long term Dermal long term Dermal short term	13.67 mg/kg/day 1500 mg/m3 74.3 mg/m3 8.2 mg/kg/day 1500 mg/m3	Industry Industry Consumer Consumer Consumer
Methacrylic acid	Inhalation short term Inhalation long term Dermal long term Inhalation short term Inhalation long term Dermal long term	88mg/m3 29.6 mg/m3 4.25 mg/m3 6.55 mg/m3 6.3 mg/m3 2.55 mg/m3	Industry Industry Industry Consumer Consumer Consumer
reaction product: bisphenol-A-(epichlorhydrin) and epoxy resin (number average molecular weight <= 700)	Short term Dermal/Systemic Short term Inhalation/Systemic Long term Dermal/Systemic Long term Inhalation/Systemic Short term Dermal/Systemic Short term Inhalation/Systemic Short term Oral/Systemic Long term Dermal/Systemic Long term Inhalation/Systemic Long term Oral/Systemic	8.3 mg/kg bw/day 12.3 mg/m³ 8.3 mg/kg bw/day 12.3 mg/m³ 3.6 mg/kg bw/day 0.75 mg/m³ 0.75 mg/kg bw/day 3.6 mg/kg bw/day 0.75 mg/m³ 0.75 mg/kg bw/day	Workers Workers Workers Workers General General General General General General

PNECs

Ingredient name	Compartment Detail	PNECs	Method Detail
Methyl methacrylate	Freshwater Marine water Soil Sediment	0.94 mg/l 0.094 mg/l 1.47 mg/kg 5.74 mg/kg	
Methacrylic acid	Freshwater Sediment	0.82 mg/l 1.2 mg/l	
reaction product: bisphenol-A-(epichlorhydrin) and epoxy resin (number average molecular weight <= 700)	Fresh water Marine Sewage Treatment Plant Fresh water sediment Marine water Sediment Sediment	3 □g/l 0.3 □g/l 10 mg/l 0.5 mg/kg dwt 0.5 mg/kg dwt 0.05 mg/kg dwt	

	Intermittent Releases	0.013 mg/l	

8.2 Exposure controls

8.2.2.1 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 reuse. Ensure that eyewash stations and safety showers are close to the workstation location.

8.2.2.2 EYE/FACE PROTECTION: Safety eye-wear complying to an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gasses or dust.

8.2.2.3 HAND PROTECTION: Chemical resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

MATERIAL OF GLOVES FOR LONG TERM APPLICATION (BTT>480MIN): Ethyl Vinyl Alcohol Laminate (EVAL), butyl rubber.

MATERIAL IF GLOVES FOR SHORT TERM/SPLASH APPLICATION (10MIN<BTT<480MIN): neoprene, nitrile rubber.

Use gloves approved to relevant standards e.g. EN374 (Europe), F739b (US). Suitability and durability of a glove is dependent on usage, e.g. frequency and duration of contact, chemical resistance of glove material and dexterity. Always seek advice from glove suppliers.

8.2.2.4 BODY PROTECTION: Overalls or labcoat.

8.2.3 Environmental exposure controls

VENTILATION

Use engineering controls to maintain airborne level below exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, use only with adequate ventilation. Local exhaust ventilation may be necessary for some operations.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance	Mobile paste
Odour	Mild characteristic
Odour threshold	No test data available
pH	No test data available
Melting point/freezing point	-48.2 C
Initial boiling point and boiling range	100.3 C (1,013 hPa)
Flash point	10 C (DIN 51755)
Evaporation rate	No test data available
Flammability	Highly flammable

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Upper/lower flammability or explosive limits	Lower explosion limit 2.1 %(V) at 10,5□C Upper explosion limit 12.5 %(V)
Vapour pressure	38.7 hPa (20 C)
Vapour density	> 1 (20 C)
Relative density	1.2 calculated
Solubility	15.9 g/l (20 C)
Partition coefficient n-octanol/water	log Pow 1.38, (calculated)
Auto-ignition temperature	430 C (DIN 51794)
Decomposition temperature	No test data available
Viscosity	paste
Explosive properties	May form explosive mixtures with air
Oxidizing properties	Not applicable

9.2 Other information
None

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity
No data

10.2 Stability
Stable under recommended storage conditions. See storage section 7

10.3 Possibility of Hazardous Reactions
Polymerization with heat evolution may occur in the presence of radical forming substances (e.g. peroxides), reducing substances, and/or heavy metal ions.

10.4 Conditions to Avoid
The product is normally supplied in a stabilized form. If the permissible storage period and/or storage temperature is exceeded, the product may polymerize with heat evolution.

10.5 Incompatible Materials
Free radical initiators.
Reducing agents.
Tertiary amines.
Heavy metals.
Peroxides
oxidizing agents
Mineral acids.

10.6 Hazardous Decomposition Products
Combustion products may include and are not limited to: Carbon monoxide. Carbon Dioxide and water.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity

Product/ingredient name	Endpoint	Species	Result	exposure

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Methyl methacrylate	LD50 OECD 401 LC50 LD50	Rat Rat Rabbit	> 5,000 mg/kg 7093ppm 29.8 mg/l > 5,000 mg/kg	Oral Inhalation Dermal
Methacrylic Acid	LD50 LD50	Rat Rabbit	1060mg/kg 500mg/kg	Oral Dermal
reaction product: Bisphenol-A-(epichlorhydrin) and epoxy resin (number average molecular weight <= 700)	LD50 LD50	Rat Rat	>2000mg/kg >2000mg/kg	oral dermal
Ethylene glycol dimethacrylate	LD50 LD50	Rat Rabbit	3300mg/kg >3000mg/kg	Oral Dermal
Alpha,alpha-dimethylbenzyl hydroperoxide	LD50 LD50 LC50	Rat Rat Rat	200-2000 mg/kg 400-2000 mg/kg 0.5-2 mg/l	Oral Dermal Inhalation
Cumene	LD50 LD50 LC50	Rat Cuniculosus Mouse	1400mg/kg 12300mg/kg 24.7 mg/l	Oral Dermal Inhalation

Irritation/corrosion

Product/ingredient name	Test	Species	Route of exposure	Result
Bisphenol-A-(epichlorhydrin) and epoxy resin (number average molecular weight <= 700)	OECD 404 acute dermal irritation/corrosion OECD 405 acute eye irritation/corrosion	Rabbit Rabbit	Skin Eyes	Non-irritant Non-irritant

Conclusion/summary

Skin: Toxic through skin absorption. Causes severe burns.

Eyes: Causes severe burns. May cause blurred vision and serious eye damage.

Respiratory: May cause damage to mucous membranes in nose, throat, lungs and bronchial system. Harmful by inhalation.

Sensitisation

Product/ingredient name	Test	Species	Route of exposure	Result
methymethacrylate	OECD406	Guinea pig	Skin	sensitisation
Bisphenol-A-(epichlorhydrin) and epoxy resin (number	O.E.C.D. test guideline no. 406	Guinea pig	skin	Extremely sensitising

average molecular weight <= 700)				

Conclusion/summary : In humans various types of allergic reactions have been observed (symptoms: headache, eye irritations, skin affections).

Mutagenicity

Product/ingredient name	Test	Result
Metylmethacrylate	OECD471 germ cell mutagenicity Salmonella typhimurium	negative
Bisphenol-A-(epichlorhydrin) and epoxy resin (number average molecular weight <= 700)	Bacterial Reverse Mutation Test in vitro mammalian chromosomal aberration Test mammalian erythrocyte micronucleus test	Positive Positive Negative

No experimental indication of genotoxicity in vivo available.
In summary not mutagenic according to internationally accepted criteria.

Carcinogenicity

Product/ingredient name	Test	Result
Methylmethacrylate	OECD451	negative
Bisphenol-A-(epichlorhydrin) and epoxy resin (number average molecular weight <= 700)	rat oral gavage OECD no. 453 OECD Test Guideline no. 453 dermal exposure studies	no evidence of carcinogenicity no evidence of carcinogenicity

No indications of toxic effects were observed in reproduction studies in animals.

Reproductive toxicity

Product/ingredient name	Test	Species	Result/result type	Target organs
Methylmethacrylate				
Bisphenol-A-(epichlorhydrin) and epoxy resin (number average molecular weight <= 700)	O.E.C.D. Test Guideline no. 416	Rat	Oral 750 mg/kg/day NOEL:	

No indications of toxic effects were observed in reproduction studies in animals.

Teratogenicity

Product/ingredient name	Test	Species	Result/result type
Methylmethacrylate	NOAEC	Mouse	9000ppm

	NOAEC	Rat	>2028ppm
Bisphenol-A-(epichlorhydrin) and epoxy resin (number average molecular weight <= 700)	OECD Test Guideline no. 414 Oral Dermal	Rabbit Rabbit	<180 mg/kg/day NOEL: <300 mg/kg/day NOEL:

No indications of teratogenic effects in experimental animals.

Specific target organ toxicity (single exposure)

Product/ingredient name	Test	Species	Result/result type
Methylmethacrylate			

respiratory tract, (irritation) category 3

Specific target organ toxicity (repeated exposure)

Product/ingredient name	Test	Species	Result/result type
methylmetacrylate	Inhalation OECD453 104 weeks Oral 104 weeks Inhalation OECD 412 14 weeks	Rat Rat rabbit	Damage to mucous membranes in the nose at 400 ppm NOAEC 100ppm NOEL >2000ppm NOAEC 1000ppm
Bisphenol-A-(epichlorhydrin) and epoxy resin (number average molecular weight <= 700)	OECD test guideline no. 408 sub chronic oral study NOAEL 90-day dermal OECD Test Guideline no. 411	Rat Rat	50 mg/kg/day 1000 mg/kg/day NOEL

Aspiration hazard
Not available

Information on the likely routes of exposure
Not available

Potential acute health effects
Inhalation: irritating to respiratory system. May cause damage to mucous membranes in nose, throat, lungs and bronchial system. Harmful by inhalation.
Ingestion: Harmful if swallowed. Causes burns.
Skin contact: toxic through skin absorption. Causes severe burns.
Eye contact: Causes severe burns. May cause blurred vision and serious eye damage.

Symptoms related to the physical, chemical and toxicological characteristics
Inhalation: May cause damage to mucous membranes in nose, throat, lungs and bronchial system.

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Ingestion: causes burns.
Skin contact: adverse symptoms may include pain, irritation and redness
Eye contact: adverse symptoms may include the following pain or irritation watering and redness.
Blurred vision.

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure
Potential immediate effects : not available
Potential delayed effects: not available

Long term exposure
Potential immediate effects :
Methylmethacrylate: repeated exposure in animals by inhalation to levels at or above the occupational exposure level produces adverse effects on the nasal epithelium (levels of 100 and 400ppm).
Methacrylic acid: repeated exposure of animals by inhalation to levels above the occupational exposure limit produces adverse effects on the nasal epithelium (levels of 100 and 300ppm).
Potential delayed effects:
Methylmethacrylate: repeated exposure to high levels produces adverse effects on the heart, lungs, liver and kidneys.

Have caused allergic skin sensitisation in guinea pigs. Individuals having an allergic skin reaction to this product may have an allergic skin reaction to reaction to similar materials.

Potential chronic health effects

Product/ingredient name	Test	result type	Result	Target organs
methylmethacrylate				
reaction product: Bisphenol-A-(epichlorhydrin) and epoxy resin (number average molecular weight <= 700)		NOAEL	200mg/kg	

Conclusion/summary: Not available
General: Once sensitised a severe allergic reaction may occur when subsequently exposed to very low levels.
Carcinogenicity: No known significant effects or critical hazards
Mutagenicity: No known significant effects or critical hazards
Teratogenicity: No known significant effects or critical hazards
Developmental effects: No known significant effects or critical hazards
Fertility effects: No known significant effects or critical hazards

11.2 Additional
None

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity

Product/ingredient name	Test	End point	exposure	Species	result

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Methyl methacrylate	OECD 203 OECD 210 OECD 202 OECD 202 part 2 OECD 201 Aquatoxicity, algae / aquatic Toxicity in microorganisms	LC50 NOEC EC50 NOEC EC50 EC3	96 hours 48 hours 21days 72 hours 16 hours	Oncorhynchus mykiss Danio rerio Daphnia magna Daphnia magna Selenastrum capricornutum Pseudomonas putida	> 79 mg/l 9.4 mg/l 69 mg/l 37 mg/l ➢ 110 mg/l 100 mg/l
Methacrylic acid	Acute toxicity Aquatic plants	LC50 EC50	96hours 48 hours 96 hours	Fish Daphnia Green algae	85mg/l >130mg/l 0.59mg/l
reaction product: Bisphenol-A-(epichlorhydrin) and epoxy resin (number average molecular weight <= 700)	OECD No. 203 fish, acute toxicity test OECD No. 202 (daphnia sp., acute immobilisation test) OECD No. 211 Reproduction study OECD 201 alga, growth inhibition test Activated sewage sludge respiration inhibition Growth inhibition test	Acute LC50 Acute EC50 NOEC Acute LC50 EC50	96 hour static 48 hour static 21 day semi static 72 hours static 3 hours 18 hours static	Fish Daphnia Daphnia Algae Activated sludge Bacteria	1.3 mg/L 2.1 mg/L 0.3 mg/L >11 mg/L > 100 mg/L. > 42.6 mg/L.
Ethylene glycol dimethacrylate		LC50 EC50 EC50 EC50	96 hours 48 hours 96 hours 3 hours	Fish Daphnia Algae Pseudomonas putida	15.95 mg/l 44.9 mg/l 19.0 mg/l 570mg/l
Alpha.alpha-dimethylbenzyl hydroperoxide		LC50		Leuciscus idus	10-100mg/l

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12.2 Persistance and degradability

Product/ingredient name	Test	Period	result
methylmethacrylate	OECD 301 C DOC removal	28 days 28 days	88% >95%
reaction product: bisphenol-A-(epichlorhydrin) and epoxy resin (number average molecular weight <= 700)	OECD 301F OECD test guideline no. 301B	28 day 28 day	5% 6-12%

Product/ingredient name	Aquatic half life	Photolysis	Biodegradability
methylmethacrylate			Readily degradable
reaction product: bisphenol-A-(epichlorhydrin) and epoxy resin (number average molecular weight <= 700)			Not readily

12.3 Bio-Accumulative Potential

Product/ingredient name	LogPow	BCF	Potential
methylmethacrylate			Low
Methacrylic acid			low
reaction product: bisphenol-A-(epichlorhydrin) and epoxy resin (number average molecular weight <= 700)	3.24	3 - 31	Not bioaccumulative

No evidence of hazardous properties.

12.4 Mobility and soil

Soil/water partition coefficient(Koc):
Methylmethacrylate: 1.38 high mobility in soil
Methacrylic acid: 0.93
reaction product: bisphenol-A-(epichlorhydrin) and epoxy resin
(number average molecular weight <= 700): 2.65
Ethylene glycol dimethacrylate: 1.22

Mobilty: no evidence of hazardous properties

SDS AD23 SUPER 'CRYLIC! Adhesive

12.5 Results of PBT and vPvB assessment
Not PBT of vPvB

12.6 Other adverse effects
No further information available

12.7 Other ecological information
None

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste Treatment Methods

Product Waste is hazardous. It must be disposed of in accordance with the regulations after consultation of the competent local authorities and the disposal company in a suitable and licensed facility.

Uncleaned packaging Contaminated packaging should be emptied optimally and after appropriate professional cleansing may be taken for reuse. Packaging that cannot be cleaned should be disposed of professionally. Uncontaminated packaging may be taken for recycling.

Code of waste EWC 07 02 08
waste from the manufacture, formulation, supply and use (MFSU) of plastics, synthetic rubber and man-made fibres - other still bottoms and reaction residues
Always check the given waste codes according to the actual conditions of manufacturing, formulation or use in your facilities.

SECTION 14: TRANSPORT INFORMATION

14.1 UN Number
UN2924

14.2 UN proper shipping name
FLAMMABLE LIQUID CORROSIVE N.O.S. (methylmethacrylate, methacrylic acid)

14.3 Transport hazard class(es)
3(8)

14.4 packing group
II
14.5 Environmental hazards
if not mentioned in Point 14.2 then it does not apply

14.6 Special precautions for user
see section 14.2

14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC code
for transportapproval see regulatory information

SECTION 15: REGULATORY INFORMATION

15.1 Safety , health and environmental regulations
Directive 2006/121/EC of the European Parliament and of the council of 18 December 2006. Regulation (EC) No. 1907/2006 of the European Parliament and of the Council of 18 December 2006.

15.2 Chemical safety assessment
A chemical safety assessment has not been carried out.

SECTION 16: OTHER INFORMATION

16.1 Other Information
Suitable precautionary measures must be taken to ensure that the applicable exposure limits are met in the working area and impairment of health is avoided.
Required industrial safety measures, including effective ventilation and exhaust ventilation in the working area, must comply with existing legislation.

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16.2 Associated risk phrases
Full text of classifications DPD
F - flammable
C - corrosive

Full text of abbreviated R-phrases

SDS AD23 SUPER 'CRYLIC! Adhesive

R11	Highly flammable
R21/22	Harmful by inhalation and by skin contact.
R34	Causes burns
R36/37/38	Irritating to eyes, respiratory system and skin.
R43	May cause sensitisation by skin contact
R52/53	Harmful to aquatic organisms may cause long term adverse effects in the aquatic environment.

Full text of abbreviated H statements

H225 Highly flammable liquid and vapour.
H302 Harmful if swallowed.
H312 Harmful in contact with skin.
H314 Causes severe skin burns and eye damage.
H315 Causes skin irritation
H317 May cause allergic skin irritation
H335 May cause respiratory irritation.
H412 Harmful to aquatic life with long lasting effects