

	<b>SAFETY DATA SHEET</b>	Page : 1/ 10
		Revision nr :
	<b>670 Adhesive</b>	Issuing date : 09/03/2011
		Supersedes : 18/01/2010

## \*\*\*PROPOSAL\*\*\*

### 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

#### 1.1. Product identifier

Commercial Product Name : 670 Adhesive

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

Specific use(s) : Adhesives

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

Company : REVEX Inc.  
3190 Martin Road  
Walled Lake Michigan 48390, USA  
  
E-mail address: info@revex.us

#### 1.4. Emergency telephone number

Emergency telephone : INFOTRAC 001-352-323-3500 (This telephone number is available 24 hours per day, 7 days per week.)

Country	Official advisory body	Address	Emergency number
IRELAND (REPUBLIC OF)	National Poisons Information Centre Beaumont Hospital	Beaumont Hospital Beaumont Road 9Dublin	+353 1 8379964
UNITED KINGDOM	National Poisons Information Service (Birmingham Centre) City Hospital	Dudley Road B18 7QHBirmingham	0870 600 6266 (UK only)

### 2. HAZARDS IDENTIFICATION

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

##### **2.1.1. Classification according to Regulation (EU) 1272/2008**

Mixture: CLP classification not requested

##### **2.1.2. Classification according to EU Directives 67/548/EEC or 1999/45/EC**

Classification : The product is classified as dangerous in accordance with Directive 1999/45/EC.

Carc.Cat.3; R40  
C; R34  
Xi; R43

Full text of R-phrases: see section 16.

#### 2.2 Label elements

##### **2.2.1. Labelling according to Regulation (EU) 1272/2008**

Mixture: CLP classification not requested

	<b>SAFETY DATA SHEET</b>	Page : 2/ 10
		Revision nr :
	<b>670 Adhesive</b>	Issuing date : 09/03/2011
		Supersedes : 18/01/2010

### \*\*\*PROPOSAL\*\*\*

#### 2.2.2. Labelling according to Directives (67/548/EEC - 1999/45/EC)

Symbol(s):



C - Corrosive

Contains

: 2-hydroxyethyl methacrylate ,  
Methacrylic acid ,  
tert-butyl perbenzoate ,  
Maleic acid ,  
1,2-benzisothiazol-3(2H)-one 1,1-dioxide .

R-phrase(s)

: R34 - Causes burns.  
R43 - May cause sensitisation by skin contact.  
R40 - Limited evidence of a carcinogenic effect.

S-phrases

: S26 - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.  
S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection.  
S45 - In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

#### 2.3. Other hazards

Other hazards which do not result in classification

: Results of PBT and vPvB assessment, no data available

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

#### 3.1. Substances

Not applicable

#### 3.2. Mixtures

Substance name	Product identifier	%	Classification according to Directive 67/548/EEC
2-hydroxyethyl methacrylate	(CAS No.) 868-77-9 (EC No) 212-782-2 (EC Index) 607-124-00-X	30 - 60	Xi; R36/38 R43
Methacrylic acid, monoester with propane-1,2-diol	(CAS No.) 27813-02-1 (EC No) 248-666-3 (EC Index) -	30 - 60	Xi; R36/37/38
Exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl methacrylate	(CAS No.) 7534-94-3 (EC No) 231-403-1	5 - 10	Xi; R36/37/38
Methacrylic acid	(CAS No.) 79-41-4 (EC No) 201-204-4 (EC Index) 607-088-00-5	5 - 10	Xn; R21/22 C; R35
Hydrofobic Silicon Dioxide, Amorphous	(CAS No.) 67762-90-7 (EC No) - (EC Index) -	1 - 5	Not classified
tert-butyl perbenzoate	(CAS No.) 614-45-9 (EC No) 210-382-2	1 - 5	E; R2 Xn; R20 Xi; R38 Xi; R43 N; R50 R7
Maleic acid	(CAS No.) 110-16-7 (EC No) 203-742-5 (EC Index) 607-095-00-3	1 - 3	Xn; R22 Xi; R36/37/38 R43
Acrylic processing aids	(CAS No.) 25852-37-3 (EC No) -	1 - 3	Xi; R36/37/38
1,2-benzisothiazol-3(2H)-one 1,1-dioxide	(CAS No.) 81-07-2 (EC No) 201-321-0 (EC Index) -	1 - 3	Carc.Cat.3; R40
Substance name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]

	<b>SAFETY DATA SHEET</b>	Page : 3/ 10
		Revision nr :
	<b>670 Adhesive</b>	Issuing date : 09/03/2011
		Supersedes : 18/01/2010

### \*\*\*PROPOSAL\*\*\*

2-hydroxyethyl methacrylate	(CAS No.) 868-77-9 (EC No) 212-782-2 (EC Index) 607-124-00-X	30 - 60	Eye Irrit. 2, H319 Skin Irrit. 2, H315 Skin Sens. 1, H317
Methacrylic acid, monoester with propane-1,2-diol	(CAS No.) 27813-02-1 (EC No) 248-666-3 (EC Index) -	30 - 60	Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335
Exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl methacrylate	(CAS No.) 7534-94-3 (EC No) 231-403-1	5 - 10	Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335
Methacrylic acid	(CAS No.) 79-41-4 (EC No) 201-204-4 (EC Index) 607-088-00-5	5 - 10	Skin Corr. 1A, H314 Acute Tox. 4 (Dermal), H312 Acute Tox. 4 (Oral), H302
Hydrofobic Silicon Dioxide, Amorphous	(CAS No.) 67762-90-7 (EC No) - (EC Index) -	1 - 5	Not classified
tert-butyl perbenzoate	(CAS No.) 614-45-9 (EC No) 210-382-2	1 - 5	Org. Perox. C, H242 Acute Tox. 4 (Inhalation), H332 Skin Irrit. 2, H315 Skin Sens. 1, H317 Aquatic Acute 1, H400
Maleic acid	(CAS No.) 110-16-7 (EC No) 203-742-5 (EC Index) 607-095-00-3	1 - 3	Acute Tox. 4 (Oral), H302 Eye Irrit. 2, H319 Skin Irrit. 2, H315 Skin Sens. 1, H317 STOT SE 3, H335
Acrylic processing aids	(CAS No.) 25852-37-3 (EC No) -	1 - 3	Eye Irrit. 2, H319 Skin Irrit. 2, H315 STOT SE 3, H335
1,2-benzisothiazol-3(2H)-one 1,1-dioxide	(CAS No.) 81-07-2 (EC No) 201-321-0 (EC Index) -	1 - 3	Carc. 2, H351

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

## 4. FIRST AID MEASURES

### 4.1. Description of first aid measures

Inhalation	: Keep at rest. Move to fresh air. Oxygen or artificial respiration if needed. In the case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
Skin contact	: Take off contaminated clothing and shoes immediately. Wash off immediately with soap and plenty of water. If skin irritation persists, call a physician. Wash contaminated clothing before re-use.
Eye contact	: Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Call a physician immediately.
Ingestion	: Do NOT induce vomiting. Drink plenty of water. Obtain medical attention.
Additional advice	: Never give anything by mouth to an unconscious person. Show this safety data sheet to the doctor in attendance. Treat symptomatically.

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

Inhalation	: Causes burns. Inhalation may provoke the following symptoms: Coughing , Shortness of breath .
Skin contact	: Causes burns Skin contact may provoke the following symptoms: Redness , Pain , Blisters .
Eye contact	: Causes burns Eye contact may provoke the following symptoms: Redness , Pain , Impairment of vision .

	<b>SAFETY DATA SHEET</b>	Page : 4/ 10
		Revision nr :
	<b>670 Adhesive</b>	Issuing date : 09/03/2011
		Supersedes : 18/01/2010

### \*\*\*PROPOSAL\*\*\*

Ingestion : Causes burns Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea.

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

No data available

## 5. FIRE-FIGHTING MEASURES

### **5.1. Extinguishing media**

Suitable extinguishing media : Use dry chemical, CO<sub>2</sub>, water spray or alcohol resistant foam.  
 Extinguishing media which shall not be used for safety reasons : High volume water jet

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

Fire Hazard : Non-flammable substance  
 Specific hazards : Thermal decomposition can lead to release of irritating gases and vapours. Possible decomposition products are: CO<sub>x</sub>, NO<sub>x</sub>. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

### **5.3. Advice for firefighters**

Advice for firefighters : Wear personal protective equipment. Wear self contained breathing apparatus for fire fighting if necessary.

## 6. ACCIDENTAL RELEASE MEASURES

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

Advice for non-emergency personnel : Wear personal protective equipment. See also section 8 Evacuate personnel to safe areas. Avoid contact with skin, eyes and clothing. Do not breathe vapours or spray mist.  
 Advice for emergency responders : Only qualified personnel equipped with suitable protective equipment may intervene. Wear suitable protective equipment.

### **6.2. Environmental precautions**

Environmental precautions : Do not flush into surface water or sanitary sewer system.

### **6.3. Methods and materials for containment and cleaning up**

Methods for cleaning up : Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Sweep up and shovel into suitable containers for disposal. Ensure adequate ventilation. Flush with water. Dispose of in accordance with local regulations.

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

See also section 8. See also section 13.

## 7. HANDLING AND STORAGE

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

Handling : Wear personal protective equipment. See also section 8. Avoid contact with skin, eyes and clothing. Use only in well-ventilated areas. Keep away from

	<b>SAFETY DATA SHEET</b>	Page : 5/ 10
		Revision nr :
	<b>670 Adhesive</b>	Issuing date : 09/03/2011
		Supersedes : 18/01/2010

### \*\*\*PROPOSAL\*\*\*

Hygiene measures : open flames, hot surfaces and sources of ignition. Heating can release hazardous gases. Avoid inhalation of vapour and spray mist  
: Handle in accordance with good industrial hygiene and safety practice. Wash contaminated clothing before re-use.

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

Storage : Keep tightly closed in a dry, cool and well-ventilated place. Do not store near or with any of the incompatible materials listed in section 10. Keep at temperatures between 7.7 and 27.7 °C.

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

Adhesives.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### **8.1. Control parameters**

<b>Component</b>	: <b>Methacrylic acid (79-41-4)</b>
TLV-TWA (ppm)	: 20
TLV-TWA (mg/m <sup>3</sup> )	: 70

### **8.2. Exposure controls**

Respiratory protection	: In case of insufficient ventilation wear suitable respiratory equipment. Respirator with a full face mask (EN 136) Respirator with a half face mask (EN 140) Recommended Filter type: (type A - EN 141)
Hand protection	: Impervious gloves (EN 374) Nitrile rubber The selection of specific gloves for a specific application and time of use in a working area, should also take into account other factors on the working space, such as (but not limited to): other chemicals that are possibly used, physical requirements (protection against cutting/drilling, skill, thermal protection), and the instructions/specification of the supplier of gloves.
Eye protection	: Tightly fitting safety goggles (EN 166)
Skin and body protection	: Wear suitable protective clothing.
Engineering measures	: Use only in area provided with appropriate exhaust ventilation.
Environmental exposure controls	: Do not flush into surface water or sanitary sewer system.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

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

Appearance	: liquid
Colour	: Clear
Odour	: irritating
pH	: no data available
Melting point/range	: no data available
Boiling point/boiling range	: > 148,9 °C
Flash point	: > 93,3 °C

	<b>SAFETY DATA SHEET</b>	Page : 6/ 10
		Revision nr :
	<b>670 Adhesive</b>	Issuing date : 09/03/2011
		Supersedes : 18/01/2010

### \*\*\*PROPOSAL\*\*\*

Evaporation rate	: no data available
Explosion limits	: no data available
Vapour pressure	: < 10 mm (@ 20 °C)
Vapour density	: no data available
Relative density	: 1,07
Water solubility	: slightly soluble
Solubility in other solvents	: no data available
Partition coefficient: n-octanol/water	: no data available
Viscosity	: no data available
Explosive properties	: Not applicable
Oxidizing properties	: Not applicable.

#### **9.2. Other information**

Volatile organic compounds (VOC) content : 2 %

## 10. STABILITY AND REACTIVITY

### **10.1. Reactivity**

Reactivity : See also section 10.5

### **10.2. Chemical stability**

Stability : Stable under normal conditions.

### **10.3. Possibility of hazardous reactions**

No data available

### **10.4. Conditions to avoid**

Conditions to avoid : Heat, flames and sparks.

### **10.5. Incompatible materials**

Incompatible materials : Incompatible with oxidizing agents.

### **10.6. Hazardous decomposition products**

Hazardous decomposition products : Thermal decomposition can lead to release of irritating gases and vapours.  
Possible decomposition products are: COx, NOx.

## 11. TOXICOLOGICAL INFORMATION

### **11.1. Information on toxicological effects**

Acute toxicity : Not classified (Not classified due to data which are conclusive although insufficient for classification.)

<b>Methacrylic acid, monoester with propane-1,2-diol (27813-02-1)</b>	
LD50/oral/rat	> 4000 mg/kg

<b>Methacrylic acid (79-41-4)</b>	
ATE (oral)	500,000 mg/kg

	<b>SAFETY DATA SHEET</b>	Page : 7/ 10
		Revision nr :
	<b>670 Adhesive</b>	Issuing date : 09/03/2011
		Supersedes : 18/01/2010

### \*\*\*PROPOSAL\*\*\*

<b>Methacrylic acid (79-41-4)</b>	
ATE (dermal)	1100,000 mg/kg

<b>Maleic acid (110-16-7)</b>	
LD50/oral/rat	708 mg/kg
ATE (oral)	500,000 mg/kg

Irritation	: Not classified (Not classified due to data which are conclusive although insufficient for classification.) pH: no data available
Corrosivity	: Causes burns. pH: no data available
Sensitisation	: May cause sensitisation by skin contact.
Repeated dose toxicity	: Not classified (Not classified due to data which are conclusive although insufficient for classification.)
Carcinogenicity	: Limited evidence of a carcinogenic effect.
Mutagenicity	: Not classified (Not classified due to data which are conclusive although insufficient for classification.)
Reproductive toxicity	: Not classified (Not classified due to data which are conclusive although insufficient for classification.)

#### Further information

## 12. ECOLOGICAL INFORMATION

### 12.1. Toxicity

Ecotoxicity effects	: No adverse effects are expected.
<b>Component</b>	: <b>Maleic acid (110-16-7)</b>
LC50/96h/fish	: 5 mg/l (Pimephales promelas)

### 12.2. Persistence and degradability

Persistence and degradability	: no data available
-------------------------------	---------------------

### 12.3. Bioaccumulative potential

Bioaccumulation	: no data available
Partition coefficient: n-octanol/water	: no data available

### 12.4. Mobility in soil

No data available

### 12.5. Results of PBT and vPvB assessment

PBT/vPvB	: No information available.
----------	-----------------------------

### 12.6. Other adverse effects

No data available

	<b>SAFETY DATA SHEET</b>	Page : 8/ 10
		Revision nr :
	<b>670 Adhesive</b>	Issuing date : 09/03/2011
		Supersedes : 18/01/2010

**\*\*\*PROPOSAL\*\*\***

**13. DISPOSAL CONSIDERATIONS**

**13.1. Waste treatment methods**

- |  |   |   |
|--|---|---|
| Waste from residues / unused products                | : | Dispose of in accordance with local regulations.  |
| Contaminated packaging                               | : | Empty containers should be transported/delivered using a registered waste carrier to local recyclers for disposal.  |
| Additional ecological information                    | : | Do not flush into surface water.  |
| Codes of waste (2001/573/EC, 75/442/EEC, 91/689/EEC) | : | Waste codes should be assigned by the user, preferably in discussion with the waste disposal authorities. The following Waste Codes are only suggestions: 080409 - waste adhesives and sealants containing organic solvents or other dangerous substances 150110 - packaging containing residues of or contaminated by dangerous substances |

**14. TRANSPORT INFORMATION**

**14.1. UN Number**

UN-No. : 3265

**14.2. UN proper shipping name**

Proper shipping name : CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (Methacrylic acid ())  
 Proper shipping name IATA/IMDG : CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (methacrylic acid)

**14.3. Transport hazard class(es)**

**14.3.1. Overland transport**

Class : 8 - Corrosive substances  
 Hazard identification number (Kemler No.) : 80  
 Classification code : C3  
 Tunnel restriction code : E  
 Limited quantities (ADR) : LQ07  
 Excepted quantities (ADR) : E1

**14.3.2. Inland waterway transport (ADN/ADNR)**

Class (ADNR) : 8

**14.3.3. Transport by sea**

Class : 8

**14.3.4. Air transport**

Class : 8

**14.4. Packing group**

Packing group : III

**14.5. Environmental hazards**

Other information : No supplementary information available.

**14.6. Special precautions for users**

No data available

**14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

No data available



	<b>SAFETY DATA SHEET</b>	Page : 9/ 10
		Revision nr :
	<b>670 Adhesive</b>	Issuing date : 09/03/2011
		Supersedes : 18/01/2010

**\*\*\*PROPOSAL\*\*\***

**15. REGULATORY INFORMATION**

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

**15.1.1. EU-Regulations**

Authorisations and/or restrictions on use : not applicable  
(Annex XVII)

**15.1.2. National regulations**

WGK : 2

**15.2. Chemical Safety Assessment**

Chemical Safety Assessment : no data available

**16. OTHER INFORMATION**

Text of R phrases mentioned in Section 3 : R2 -Risk of explosion by shock, friction, fire or other sources of ignition.  
R7 -May cause fire.  
R20 -Harmful by inhalation.  
R21/22 -Harmful in contact with skin and if swallowed.  
R22 -Harmful if swallowed.  
R35 -Causes severe burns.  
R36/37/38 -Irritating to eyes, respiratory system and skin.  
R36/38 -Irritating to eyes and skin.  
R38 -Irritating to skin.  
R40 -Limited evidence of a carcinogenic effect.  
R43 -May cause sensitisation by skin contact.  
R50 -Very toxic to aquatic organisms.

Full text of H-Statements referred to under sections 2 and 3. : H242 -Heating may cause a fire.  
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 an allergic skin reaction.  
H319 -Causes serious eye irritation.  
H332 -Harmful if inhaled.  
H335 -May cause respiratory irritation.  
H351 -Suspected of causing cancer  
H400 -Very toxic to aquatic life.

Sources of key data used to compile the datasheet : European Chemicals Bureau (ECB). Supplier MSDS.

	<b>SAFETY DATA SHEET</b>	Page : 10/ 10
		Revision nr :
	<b>670 Adhesive</b>	Issuing date : 09/03/2011
		Supersedes : 18/01/2010

**\*\*\*PROPOSAL\*\*\***

Abbreviations and acronyms :

- ADNR = Accord Européen relatif au Transport International des Marchandises Dangereuses par voie de Navigation du Rhin
- ADR = Accord européen relatif au transport international des marchandises Dangereuses par Route
- CLP = Classification, Labelling and Packaging Regulation according to 1272/2008/EC
- IATA = International Air Transport Association
- IMDG = International Maritime Dangerous Goods Code
- LEL = Lower Explosive Limit/Lower Explosion Limit
- UEL = Upper Explosion Limit/Upper Explosive Limit
- REACH = Registration, Evaluation, Authorisation and Restriction of Chemicals
- PBT = Persistent Bioaccumulative Toxic
- vPvB = very Persistent and very Bioaccumulative
- CSR = Chemical Safety Report
- DNEL = Derived No Effect Level
- LD50 = Median lethal dose
- N.O.S. = Not Otherwise Specified
- PNEC = Predicted No Effect Concentration
- STEL = Short term exposure limit
- TLV = Threshold limits
- TWA = time weighted average

The contents and format of this SDS are in accordance with EEC Commission Directive 1999/45/EC, 67/548/EC, 1272/2008/EC and EEC Commission Regulation 1907/2006/EC (REACH) Annex II.

**DISCLAIMER OF LIABILITY** The information in this SDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use or disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. This SDS was prepared and is to be used only for this product. If the product is used as a component in another product, this SDS information may not be applicable.