1 Identification of the substance/mixture and of the company/undertaking

- · 1.1 Product identifier
- · Tradename: Tru-Alpha Crack Fix Resin
- · Article number:
- 1.2 Relevant identified uses of the substance or mixture and uses advised against No further relevant information available.
- · 1.3 Details of the supplier of the Safety Data Sheet
- · Manufacturer/Supplier:

Coatings Solutions 315. County Line Rd, STE 4 Lakeland, FL 33811 Phone: 863-450-2192

· 1.4 Emergency telephone number:

Chemtrec (800)424-9300 CCN1023108

2 Hazards identification

- · 2.1 Classification of the substance or mixture
- Classification according to Regulation (EC) No 1272/2008



Acute Tox. 4 H332 Harmful if inhaled.

Skin Sens. 1 H317 May cause an allergic skin reaction.

STOT SE 3 H335 May cause respiratory irritation.

· Classification according to Directive 67/548/EEC or Directive 1999/45/EC

Xn; Harmful

R20: Harmful by inhalation.

Xi; Irritant

R37: Irritating to respiratory system.

Xi; Sensitising

R43: May cause sensitisation by skin contact.

· Information concerning particular hazards for human and environment:

The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

· Classification system:

The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

The classification is in accordance with the latest editions of international substances lists, and is supplemented by information from technical literature and by information provided by the company.

(Contd. on page 2)

Tradename: Tru-Alpha Crack Fix Resin

(Contd. of page 1)

- · 2.2 Label elements
- Labelling according to Regulation (EC) No 1272/2008

The product is classified and labelled according to the CLP regulation.

Hazard pictograms



· Signal word Warning

Hazard-determining components of labelling:

Hexane. 1.6-diisocvanato-. homopolymer

hexamethylene-di-isocyanate

Hazard statements

H332 Harmful if inhaled.

H317 May cause an allergic skin reaction.

H335 May cause respiratory irritation.

Precautionary statements

P280 Wear protective clothing / eye protection.
P271 Use only outdoors or in a well-ventilated area.

P261 Avoid breathing mist/vapours/spray.

P312 Call a POISON CENTER/doctor if you feel unwell.

P403+P233 Store in a well-ventilated place. Keep container tightly closed.

P501 Dispose of contents/container in accordance with local/regional/national/international

regulations.

· Additional information:

Contains isocyanates. May produce an allergic reaction.

- · Hazard description:
- · WHMIS-symbols:

D2B - Toxic material causing other toxic effects



· NFPA ratings (scale 0 - 4)



Health = 2 Fire = 1 Reactivity = 0

· HMIS-ratings (scale 0 - 4)



HMIS Long Term Health Hazard Substances

822-06-0 hexamethylene-di-isocyanate

(Contd. on page 3)

Tradename: Tru-Alpha Crack Fix Resin

(Contd. of page 2)

- · 2.3 Other hazards
- · Results of PBT and vPvB assessment
- **PBT:** Not applicable.
- · **vPvB:** Not applicable.

3 Composition/information on ingredients

- · 3.2 Mixtures
- · **Description:** Mixture of substances listed below with nonhazardous additions.

Dangerous components:		
CAS: 9016-87-9	Polymeric Diisocynate (pmdi)	30-50%
	xn R20; xi R37; xi R43	
	① Acute Tox. 4, H332; Skin Sens. 1, H317; STOT SE 3, H335	
CAS: 101-68-8	4.4 Diphenylmethane di-isocyanate (MDI)	30-50%
	☑ T R23; ✗ Xn R42/43; ✗ Xi R36/37/38	
	♦ Acute Tox. 3, H331	
	& Resp. Sens. 1, H334	
	Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317;	
	* STOT SE 3, H335	

· Additional information: For the wording of the listed risk phrases refer to section 16.

4 First aid measures

· 4.1 Description of first aid measures

· General information:

Immediately remove any clothing soiled by the product.

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

Take affected persons out into the fresh air.

· After inhalation:

Supply fresh air; consult doctor in case of complaints.

Provide oxygen treatment if affected person has difficulty breathing.

· After skin contact:

Immediately wash with water and soap and rinse thoroughly.

If skin irritation continues, consult a doctor.

· After eye contact:

Immediately remove contact lenses if possible.

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

After swallowing:

Rinse out mouth and then drink plenty of water.

Do not induce vomiting; call for medical help immediately.

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

Asthma attacks

Allergic reactions

Coughing

Breathing difficulty

(Contd. on page 4)

Tradename: Tru-Alpha Crack Fix Resin

(Contd. of page 3)

Profuse sweating

Gastric or intestinal disorders when ingested.

- · Hazards Danger of impaired breathing.
- · 4.3 Indication of any immediate medical attention and special treatment needed

Treat skin and mucous membrane with antihistamine and corticoid preparations. In cases of irritation to the lungs, initial treatment with cortical steroid inhalants.

Contains isocyanates. May produce an allergic reaction.

5 Firefighting measures

- · 5.1 Extinguishing media
- · Suitable extinguishing agents: Use fire extinguishing methods suitable to surrounding conditions.
- · For safety reasons unsuitable extinguishing agents: None.
- · 5.2 Special hazards arising from the substance or mixture

During heating or in case of fire poisonous gases are produced.

- 5.3 Advice for firefighters
- · Protective equipment:

Wear self-contained respiratory protective device.

Wear fully protective suit.

· Additional information No further relevant information available.

6 Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Use respiratory protective device against the effects of fumes/dust/aerosol.

Wear protective equipment. Keep unprotected persons away.

Ensure adequate ventilation

- 6.2 Environmental precautions: Do not allow to enter sewers/ surface or ground water.
- 6.3 Methods and material for containment and cleaning up:

Absorb liquid components with liquid-binding material.

Pick up mechanically.

Dispose contaminated material as waste according to item 13.

· 6.4 Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

7 Handling and storage

· 7.1 Precautions for safe handling

Prevent formation of aerosols.

Keep receptacles tightly sealed.

Use only in well ventilated areas.

Avoid splashes or spray in enclosed areas.

Information about fire - and explosion protection: No special measures required.

(Contd. on page 5)

Tradename: Tru-Alpha Crack Fix Resin

(Contd. of page 4)

- · 7.2 Conditions for safe storage, including any incompatibilities
- Storage:
- Requirements to be met by storerooms and receptacles:

Avoid storage near extreme heat, ignition sources or open flame.

Protect from humidity and water.

· Information about storage in one common storage facility:

Store away from foodstuffs.

Store away from oxidizing agents.

Store away from water.

Do not store together with acids.

- · Further information about storage conditions: Store in cool, dry conditions in well sealed receptacles.
- · 7.3 Specific end use(s) No further relevant information available.

8 Exposure controls/personal protection

- · Additional information about design of technical facilities: No further data; see item 7.
- · 8.1 Control parameters

· Ingredients v	Ingredients with limit values that require monitoring at the workplace:	
CAS# 101-68	CAS# 101-68-8 4.4 Diphenylmethane di-isocyanate (MDI	
REL (USA)	Long-term value: 0,035 mg/m³, 0,005 ppm Ceiling limit: 0,14* mg/m³, 0,02* ppm *10-min	
TLV (USA)	Long-term value: 0,034 mg/m³, 0,005 ppm	
EL (Canada)	Short-term value: C 0,01 ppm Long-term value: 0,005 ppm S	
EV (Canada)	Long-term value: 0,005 ppm	

- **DNELs** No further relevant information available.
- · PNECs No further relevant information available.
- Additional information: The lists valid during the making were used as basis.
- · 8.2 Exposure controls
- · Personal protective equipment:
- General protective and hygienic measures:

The usual precautionary measures are to be adhered to when handling chemicals.

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Do not inhale gases / fumes / aerosols.

Avoid contact with the eyes and skin.

Respiratory protection:

Not necessary if room is well-ventilated.

Use suitable respiratory protective device in case of insufficient ventilation.

Use suitable respiratory protective device when aerosol or mist is formed.

For spills, respiratory protection may be advisable.

(Contd. on page 6)

Tradename: Tru-Alpha Crack Fix Resin

· Protection of hands:

(Contd. of page 5)



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation.

· Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· Eye protection:



Safety glasses

- **Body protection:** Protective work clothing
- · Limitation and supervision of exposure into the environment

No further relevant information available.

· Risk management measures

See Section 7 for additional information. No further relevant information available.

9 Physical and chemical properties

- · 9.1 Information on basic physical and chemical properties
- · General Information
- · Appearance:

Form: Liquid Colour: Clear

Odour: Nearly odourlessOdour threshold: Not determined.pH-value: Not determined.

· Change in condition

Melting point/Melting range:
Boiling point/Boiling range:

• Flash point:

Not Determined.

406 F / 208 C

388.4 °F / 198 °C

· Flammability (solid, gaseous):

Not applicable.

· Auto/Self-ignition temperature:

(Contd. on page 7)

Tradename: Tru-Alpha Crack Fix Resin

(Contd. of page 6)

• **Decomposition temperature:** Not determined.

· **Self-igniting:** Product is not self-igniting.

· Danger of explosion: Product does not present an explosion hazard.

· Explosion limits:

Lower:
Upper:
Not determined.
Not determined.

Vapour pressure at 20 °C:
Density at 20 °C:
Relative density
Vapour density
Vapour density
Evaporation rate
Not determined.
Not determined.
Not determined.

· Solubility in / Miscibility with

water: Not miscible or difficult to mix.

· Partition coefficient (n-octanol/water): Not determined.

· Viscosity:

Dynamic at 23 °C: 250 mPas **Kinematic:** Not determined.

• 9.2 Other information No further relevant information available.

10 Stability and reactivity

- · 10.1 Reactivity
- · 10.2 Chemical stability
- Thermal decomposition / conditions to be avoided:

No decomposition if used and stored according to specifications.

10.3 Possibility of hazardous reactions

Contact with acids releases toxic gases.

Toxic fumes may be released if heated above the decomposition point.

Exothermic polymerization.

Reacts with catalysts, oxidizing agents and strong alkali.

10.4 Conditions to avoid

Store away from oxidizing agents.

Moisture.

- 10.5 Incompatible materials: No further relevant information available.
- · 10.6 Hazardous decomposition products:

Carbon monoxide and carbon dioxide

Nitrogen oxides (NOx)

Isocyanate

(Contd. on page 8)

Tradename: Tru-Alpha Crack Fix Resin

(Contd. of page 7)

11 Toxicological information

- · 11.1 Information on toxicological effects
- · Acute toxicity:

	J J	
· LD/LC5	· LD/LC50 values relevant for classification:	
	9016-87-9 Polymeric diphenylmethane Dissocynate (pmdi)	
Oral	LD50	>5000 mg/kg (rat)
		Estimated Value
Dermal	LD50	>5000 mg/kg (rabbit)
1	108-68-8 4.4-diphenylmethane diisocynate (mdi)	
Oral	LD50	738 mg/kg (rat)
Dermal	LD50	593 mg/kg (rat)

- · Primary irritant effect:
- on the skin: Slight irritant effect on skin and mucous membranes.
- · on the eye: Slight irritant effect on eyes.
- · Sensitization:

Sensitization possible through skin contact.

Sensitizing effect through inhalation is possible by prolonged exposure.

· Additional toxicological information:

The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:

Harmful

Irritant

Danger through skin adsorption.

Toxic and/or corrosive effects may be delayed up to 24 hours.

Inhalation of concentrated vapours as well as oral intake will lead to anaesthesia-like conditions and headache, dizziness, etc.

· Repeated dose toxicity: Repeated exposures may result in skin and/or respiratory sensitivity.

12 Ecological information

- · 12.1 Toxicity
- · Aquatic toxicity: No further relevant information available.
- · 12.2 Persistence and degradability Not easily biodegradable
- 12.3 Bioaccumulative potential No further relevant information available.
- · 12.4 Mobility in soil No further relevant information available.
- · Additional ecological information:
- · General notes:

Avoid transfer into the environment.

Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

- · 12.5 Results of PBT and vPvB assessment
- · **PBT:** Not applicable.
- vPvB: Not applicable.

(Contd. on page 9)

Tradename: Tru-Alpha Crack Fix Resin

(Contd. of page 8)

· 12.6 Other adverse effects No further relevant information available.

13 Disposal considerations

- · 13.1 Waste treatment methods
- · Recommendation

Must not be disposed together with household garbage. Do not allow product to reach sewage system. Can be burned with household garbage after consulting with the waste disposal facility operator and the pertinent authorities and adhering to the necessary technical regulations.

Can be disposed of with household garbage after solidification following consultation with the waste disposal facility operator and the pertinent authorities and adhering to the necessary technical regulations.

- · Uncleaned packaging:
- · **Recommendation:** Disposal must be made according to official regulations.
- Recommended cleansing agents: Water, if necessary together with cleansing agents.

14 Transport information

· 14.1 UN-Number

· DOT, ADR, ADN, IMDG, IATA UN 3082

· 14.2 UN proper shipping name

Diphenylmethane Diisocyanate

· 14.3 Transport hazard class(es)

· DOT, ADR, ADN, IMDG, IATA

· Class Not Regulated

· 14.4 Packing group

· DOT. ADR. IMDG. IATA Class 9 Packing Group 3

· 14.5 Environmental hazards:

· Marine pollutant:

• 14.6 Special precautions for user Not applicable.

· 14.7 Transport in bulk according to Annex II of

MARPOL73/78 and the IBC Code Not applicable.

· UN "Model Regulation":

15 Regulatory information

- · 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
- · United States (USA)
- ·SARA
- · Section 355 (extremely hazardous substances):

None of the ingredients is listed.

Section 313 (Specific toxic chemical listings):

None of the ingredients is listed.

(Contd. on page 10)

Tradename: Tru-Alpha Crack Fix Resin

(Contd. of page 9)

· TSCA (Toxic Substances Control Act):

All ingredients are listed.

- · Proposition 65 (California):
- · Chemicals known to cause cancer:

None of the ingredients is listed.

· Chemicals known to cause reproductive toxicity for females:

None of the ingredients is listed.

· Chemicals known to cause reproductive toxicity for males:

None of the ingredients is listed.

· Chemicals known to cause developmental toxicity:

None of the ingredients is listed.

- · Carcinogenic Categories
- · EPA (Environmental Protection Agency)

None of the ingredients is listed.

IARC (International Agency for Research on Cancer)

None of the ingredients is listed.

TLV (Threshold Limit Value established by ACGIH)

None of the ingredients is listed.

NIOSH-Ca (National Institute for Occupational Safety and Health)

None of the ingredients is listed.

- · Canada
- · Canadian Domestic Substances List (DSL)

All ingredients are listed.

· Canadian Ingredient Disclosure list (limit 0.1%)

822-06-0 hexamethylene-di-isocyanate

· Canadian Ingredient Disclosure list (limit 1%)

None of the ingredients is listed.

- Other regulations, limitations and prohibitive regulations
- · Substances of very high concern (SVHC) according to REACH, Article 57

None of the ingredients is listed.

· 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· Relevant phrases

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

(Contd. on page 11)

Tradename: Tru-Alpha Crack Fix Resin

H331 H332 H334	Causes serious eye irritation. Toxic if inhaled. Harmful if inhaled. May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause respiratory irritation.
R23 R36/37/38 R37 R42/43	Harmful by inhalation. Toxic by inhalation. Irritating to eyes, respiratory system and skin. Irritating to respiratory system. May cause sensitisation by inhalation and skin contact. May cause sensitisation by skin contact.
ADR: Accord International (IMDG: International (IMDG: International (IMDG: International (IMDG: International (IMDG: IMDG: IMD	leuropéen sur le transport des marchandises dangereuses par Route (European Agreement concerning the Carriage of Dangerous Goods by Road) attoinal Maritime Code for Dangerous Goods bartment of Transport Association y Harmonized System of Classification and Labelling of Chemicals rican Conference of Governmental Industrial Hygienists opean Inventory of Existing Commercial Chemical Substances opean List of Notified Chemical Substances opean List of Notified Chemical Substances cal Abstracts Service (division of the American Chemical Society) all Fire Protection Association (USA) dous Materials Identification System (USA) kplace Hazardous Materials Information System (Canada) ad No-Effect Level (REACH) concentration, 50 percent dose, 50 percent Acute toxicity, Hazard Category 3 Acute toxicity, Hazard Category 4 kin corrosion/irritation, Hazard Category 2 errious eye damage/eye irritation, Hazard Category 1 Sensitisation - Respirat., Hazard Category 1 Sensitisation - Skin, Hazard Category 1 Specific target organ toxicity - Single exposure, Hazard Category 3 ared by:

1 Identification of the substance/mixture and of the company/undertaking

- · 1.1 Product identifier
- · Tradename: Tru-Alpha Crack Fix Catalyst
- · Article number:
- 1.2 Relevant identified uses of the substance or mixture and uses advised against No further relevant information available.
- · 1.3 Details of the supplier of the Safety Data Sheet
- · Manufacturer/Supplier:

Coatings Solutions 3150 County Line Rd, STE 4 Lakeland, FL 33811

Phone: 863-450-2192

· 1.4 Emergency telephone number:

Chemtrec (800)424-9300 CCN1023108

2 Hazards identification

- · 2.1 Classification of the substance or mixture
- · Classification according to Regulation (EC) No 1272/2008



Acute Tox. 4 H332 Harmful if inhaled.

Skin Sens. 1 H317 May cause an allergic skin reaction.

· Classification according to Directive 67/548/EEC or Directive 1999/45/EC



Marmful (



May cause irration by skin contact.

· Information concerning particular hazards for human and environment:

The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

· Classification system:

The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

The classification is in accordance with the latest editions of international substances lists, and is supplemented by information from technical literature and by information provided by the company.

(Contd. on page 2)

Tradename: Tru-Alpha Crack Fix Catalyst

(Contd. of page 1)

- · 2.2 Label elements
- Labelling according to Regulation (EC) No 1272/2008

The product is classified and labelled according to the CLP regulation.

· Hazard pictograms



- · Signal word Warning
- Hazard-determining components of labeling:

N/A

· Hazard statements

H332 Harmful if inhaled.

H317 May cause an allergic skin reaction. H335

May cause respiratory irritation.

Precautionary statements

P280 Wear protective clothing / eye protection. Use only outdoors or in a well-ventilated area. P271

P261 Avoid breathing mist/vapours/spray.

Call a POISON CENTER/doctor if you feel unwell. P312

P403+P233 Store in a well-ventilated place. Keep container tightly closed.

Dispose of contents/container in accordance with local/regional/national/international P501

regulations.



· NFPA ratings (scale 0 - 4)



Health = 1 Fire = 1 Reactivity = 0

· HMIS-ratings (scale 0 - 4)



HMIS Long Term Health Hazard Substances N/A

(Contd. on page 3)

Tradename: Tru-Alpha Crack Fix Catalyst

(Contd. of page 2)

- · 2.3 Other hazards
- · Results of PBT and vPvB assessment
- · **PBT:** Not applicable.
- · **vPvB:** Not applicable.

3 Composition/information on ingredients

- · 3.2 Mixtures
- · **Description**: Mixture of substances listed below with nonhazardous additions.

Polyether Polyol	50-100%
	30-100%
<u></u>	
	< 10-50%
×	
	×

· Additional information: For the wording of the listed risk phrases refer to section 16.

4 First aid measures

· 4.1 Description of first aid measures

· General information:

Immediately remove any clothing soiled by the product.

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

Take affected persons out into the fresh air.

After inhalation:

Supply fresh air; consult doctor in case of complaints.

Provide oxygen treatment if affected person has difficulty breathing.

· After skin contact:

Immediately wash with water and soap and rinse thoroughly.

If skin irritation continues, consult a doctor.

· After eve contact:

Immediately remove contact lenses if possible.

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

After swallowing:

Rinse out mouth and then drink plenty of water.

Do not induce vomiting; call for medical help immediately.

(Contd. on page 4)

Tradename: Tru-Alpha Crack Fix Catalyst

(Contd. of page 3)

Profuse sweating

Gastric or intestinal disorders when ingested.

- · Hazards Danger of impaired breathing.
- 4.3 Indication of any immediate medical attention and special treatment needed

Treat skin and mucous membrane with antihistamine and corticoid preparations. In cases of irritation to the lungs, initial treatment with cortical steroid inhalants.

Contains isocyanates. May produce an allergic reaction.

5 Firefighting measures

- · 5.1 Extinguishing media
- · Suitable extinguishing agents: Use fire extinguishing methods suitable to surrounding conditions.
- · For safety reasons unsuitable extinguishing agents: None.
- · 5.2 Special hazards arising from the substance or mixture

During heating or in case of fire poisonous gases are produced.

- 5.3 Advice for firefighters
- · Protective equipment:

Wear self-contained respiratory protective device.

Wear fully protective suit.

· Additional information No further relevant information available.

6 Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Use respiratory protective device against the effects of fumes/dust/aerosol.

Wear protective equipment. Keep unprotected persons away.

Ensure adequate ventilation

- 6.2 Environmental precautions: Do not allow to enter sewers/ surface or ground water.
- 6.3 Methods and material for containment and cleaning up:

Absorb liquid components with liquid-binding material.

Pick up mechanically.

Dispose contaminated material as waste according to item 13.

· 6.4 Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

7 Handling and storage

· 7.1 Precautions for safe handling

Keep receptacles tightly sealed.

Use only in well ventilated areas.

Avoid splashes or spray in enclosed areas.

· Information about fire - and explosion protection: No special measures required.

(Contd. on page 5)

Tradename: Tru-Alpha Crack Fix Catalyst

(Contd. of page 4)

- · 7.2 Conditions for safe storage, including any incompatibilities
- Storage:
- Requirements to be met by storerooms and receptacles:

Avoid storage near extreme heat, ignition sources or open flame.

Protect from humidity and water.

· Information about storage in one common storage facility:

Store away from foodstuffs.

Store away from oxidizing agents.

Store away from water.

Do not store together with acids.

- · Further information about storage conditions: Store in cool, dry conditions in well sealed receptacles.
- · 7.3 Specific end use(s) No further relevant information available.

8 Exposure controls/personal protection

- Additional information about design of technical facilities: No further data; see item 7.
- · 8.1 Control parameters

· Ingredients v	Ingredients with limit values that require monitoring at the workplace:	
N/A		
REL (USA)		
TLV (USA)		
TLV (USA) EL (Canada)		
EV (Canada)		

- **DNELs** No further relevant information available.
- · PNECs No further relevant information available.
- Additional information: The lists valid during the making were used as basis.
- · 8.2 Exposure controls
- · Personal protective equipment:
- General protective and hygienic measures:

The usual precautionary measures are to be adhered to when handling chemicals.

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Do not inhale gases / fumes / aerosols.

Avoid contact with the eyes and skin.

· Respiratory protection:

Not necessary if room is well-ventilated.

Use suitable respiratory protective device in case of insufficient ventilation.

Use suitable respiratory protective device when aerosol or mist is formed.

For spills, respiratory protection may be advisable.

(Contd. on page 6)

Tradename: Tru-Alpha Crack Fix Catalyst

(Contd. of page 5)

· Protection of hands:



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation.

· Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

Eye protection:



Safety glasses

- **Body protection:** Protective work clothing
- · Limitation and supervision of exposure into the environment

No further relevant information available.

· Risk management measures

See Section 7 for additional information. No further relevant information available.

9 Physical and chemical properties

- · 9.1 Information on basic physical and chemical properties
- · General Information
- · Appearance:

Form: Liquid Slight Yellow

Odour: Nearly odourlessOdour threshold: Not determined.pH-value: Not determined.

· Change in condition

Auto/Self-ignition temperature:

Melting point/Melting range:
Boiling point/Boiling range:
Undetermined.

Flash point:
Flammability (solid, gaseous):
Not applicable.

not determined

(Contd. on page 7)

Tradename: Tru-Alpha Crack Fix Catalyst

(Contd. of page 6)

• **Decomposition temperature:** Not determined.

· **Self-igniting:** Product is not self-igniting.

· Danger of explosion: Product does not present an explosion hazard.

· Explosion limits:

Lower:
Upper:
Not determined.
Not determined.

Vapour pressure at 20 °C:
Density at 20 °C:
Relative density
Vapour density
Vapour density
Evaporation rate
Not determined.
Not determined.

· Solubility in / Miscibility with

water: Not miscible or difficult to mix.

· Partition coefficient (n-octanol/water): Not determined.

· Viscosity:

Dynamic at 23 °C: 18,000 mPas **Kinematic:** Not determined.

• 9.2 Other information No further relevant information available.

10 Stability and reactivity

- · 10.1 Reactivity
- · 10.2 Chemical stability
- Thermal decomposition / conditions to be avoided:

No decomposition if used and stored according to specifications.

10.3 Possibility of hazardous reactions

Contact with acids releases toxic gases.

Toxic fumes may be released if heated above the decomposition point.

Exothermic polymerization.

Reacts with catalysts, oxidizing agents and strong alkali.

10.4 Conditions to avoid

Store away from oxidizing agents.

Moisture.

- 10.5 Incompatible materials: No further relevant information available.
- · 10.6 Hazardous decomposition products:

Carbon Dioxide, Carbon Monoxide, Oxidizing Agents

Isocyanate

(Contd. on page 8)

Tradename: Tru-Alpha Crack Fix Catalyst

(Contd. of page 7)

11 Toxicological information

- · 11.1 Information on toxicological effects
- · Acute toxicity:

· LD/LC5	· LD/LC50 values relevant for classification:	
28182-8	28182-81-2 Hexane, 1,6-diisocyanato-, homopolymer	
Oral		>5000 mg/kg (rat) Estimated Value
Dermal	LD50	>5000 mg/kg (rabbit)
822-06-	822-06-0 hexamethylene-di-isocyanate	
Oral	LD50	738 mg/kg (rat)
		593 mg/kg (rat)

- · Primary irritant effect:
- on the skin: Slight irritant effect on skin and mucous membranes.
- · on the eye: Slight irritant effect on eyes.
- · Sensitization:

Sensitization possible through skin contact.

Sensitizing effect through inhalation is possible by prolonged exposure.

· Additional toxicological information:

The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:

Harmful

Irritant

Danger through skin adsorption.

Toxic and/or corrosive effects may be delayed up to 24 hours.

Inhalation of concentrated vapours as well as oral intake will lead to anaesthesia-like conditions and headache, dizziness, etc.

· Repeated dose toxicity: Repeated exposures may result in skin and/or respiratory sensitivity.

12 Ecological information

- · 12.1 Toxicity
- · Aquatic toxicity: No further relevant information available.
- · 12.2 Persistence and degradability Not easily biodegradable
- 12.3 Bioaccumulative potential No further relevant information available.
- · 12.4 Mobility in soil No further relevant information available.
- · Additional ecological information:
- · General notes:

Avoid transfer into the environment.

Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

- · 12.5 Results of PBT and vPvB assessment
- · **PBT:** Not applicable.
- · vPvB: Not applicable.

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· 12.6 Other adverse effects No further relevant information available.

13 Disposal considerations

- · 13.1 Waste treatment methods
- · Recommendation

Must not be disposed together with household garbage. Do not allow product to reach sewage system. Can be burned with household garbage after consulting with the waste disposal facility operator and the pertinent authorities and adhering to the necessary technical regulations.

Can be disposed of with household garbage after solidification following consultation with the waste disposal facility operator and the pertinent authorities and adhering to the necessary technical regulations.

- · Uncleaned packaging:
- · **Recommendation:** Disposal must be made according to official regulations.
- Recommended cleansing agents: Water, if necessary together with cleansing agents.

14 Transport information

· 14.1 UN-Number

· DOT, ADR, ADN, IMDG, IATA Not Regulated

· 14.2 UN proper shipping name

DOT, ADR, ADN, IMDG, IATA Not Regulated

· 14.3 Transport hazard class(es)

· DOT, ADR, ADN, IMDG, IATA

· Class Not Regulated

· 14.4 Packing group

· DOT, ADR, IMDG, IATA Not Regulated

· 14.5 Environmental hazards:

· Marine pollutant: No

• 14.6 Special precautions for user Not applicable.

· 14.7 Transport in bulk according to Annex II of

MARPOL73/78 and the IBC Code Not applicable.

· UN "Model Regulation":

15 Regulatory information

- 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
- · United States (USA)
- ·SARA
- · Section 355 (extremely hazardous substances):

None of the ingredients is listed.

Section 313 (Specific toxic chemical listings):

None of the ingredients is listed.

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TSCA (Toxic Substances Control Act):

All ingredients are listed.

- · Proposition 65 (California):
- · Chemicals known to cause cancer:

None of the ingredients is listed.

· Chemicals known to cause reproductive toxicity for females:

None of the ingredients is listed.

· Chemicals known to cause reproductive toxicity for males:

None of the ingredients is listed.

· Chemicals known to cause developmental toxicity:

None of the ingredients is listed.

- · Carcinogenic Categories
- · EPA (Environmental Protection Agency)

None of the ingredients is listed.

IARC (International Agency for Research on Cancer)

None of the ingredients is listed.

TLV (Threshold Limit Value established by ACGIH)

None of the ingredients is listed.

NIOSH-Ca (National Institute for Occupational Safety and Health)

None of the ingredients is listed.

- · Canada
- · Canadian Domestic Substances List (DSL)

All ingredients are listed.

Canadian Ingredient Disclosure list (limit 0.1%)

822-06-0 hexamethylene-di-isocyanate

Canadian Ingredient Disclosure list (limit 1%)

None of the ingredients is listed.

- Other regulations, limitations and prohibitive regulations
- · Substances of very high concern (SVHC) according to REACH, Article 57

None of the ingredients is listed.

· 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· Relevant phrases

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

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H331	Causes serious eye irritation. Toxic if inhaled. Harmful if inhaled. May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause respiratory irritation.
R20 R23 R36/37/38 R37 R42/43 R43	Harmful by inhalation. Toxic by inhalation. Irritating to eyes, respiratory system and skin. Irritating to respiratory system. May cause sensitisation by inhalation and skin contact. May cause sensitisation by skin contact.
ADR: Accord International IMDG: International IMDG: International IMDG: International IMDG: International IMDG: International IMDG:	deuropéen sur le transport des marchandises dangereuses par Route (European Agreement concerning the Carriage of Dangerous Goods by Road) attonal Maritime Code for Dangerous Goods partment of Transport Association ly Harmonized System of Classification and Labelling of Chemicals rican Conference of Governmental Industrial Hygienists ropean Inventory of Existing Commercial Chemical Substances opean List of Notified Chemical Substances copean List of Notified Chemical Substances call Abstracts Service (division of the American Chemical Society) nal Fire Protection Association (USA) dous Materials Information System (USA) (kplace Hazardous Materials Information System (Canada) ed No-Effect Level (REACH) (cted No-Effect Concentration (REACH) concentration, 50 percent dose, 50 percent acute toxicity, Hazard Category 3 cacute toxicity, Hazard Category 4 Skin corrosion/irritation, Hazard Category 2 derious eye damage/eye irritation, Hazard Category 1 Sensitisation - Respirat., Hazard Category 1 Sensitisation - Respirat., Hazard Category 1 Sensitisation - Skin, Hazard Category 1 Sensitisation - Skin, Hazard Category 1 Specific target organ toxicity - Single exposure, Hazard Category 3 arred by: