

Crack Filler Hardener - Part B

SECTION 1. IDENTIFICATION

Product Identifier	Crack Filler Hardener - Part B
Other Means of Identification	N/A
Product Family	Epoxy Hardeners
Recommended Use	Used to fill cracks and non-moving construction joints.
Restrictions on Use	This product is designed as part of a system in 2 parts and must be mixed, according to manufacturer's instructions, with the appropriate partner product before use.
Manufacturer/Supplier Identifier	R&D Technical Solutions Ltd., 7000 Davand Drive, Mississauga, ON, L5T 1J5, 905-795-9900, www.rdsolutions.ca
Emergency Phone No.	CANUTEC, 1-613-996-6666, 24 HR

SECTION 2. HAZARD IDENTIFICATION

Classification

Acute toxicity (Oral) - Category 4; Acute toxicity (Inhalation) - Category 4; Skin corrosion - Category 1; Serious eye damage - Category 1; Skin sensitization - Category 1; Reproductive toxicity - Category 1B; Aquatic hazard (Acute) - Category 1; Aquatic hazard (Chronic) - Category 1

Label Elements



Danger

Hazard Statement(s):

- H318 Causes serious eye damage.
- H314 Causes severe skin burns and eye damage.
- H317 May cause an allergic skin reaction.
- H302 Harmful if swallowed.
- H360 May damage fertility or the unborn child if inhaled, following skin contact and/or if swallowed.
- H400 Very toxic to aquatic life.

Prevention:

- P202 Do not handle until all safety precautions have been read and understood.
- P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
- P280 Wear protective gloves/protective clothing/eye protection/face protection.
- P270 Do not eat, drink or smoke when using this product.
- P264 Wash hands and skin thoroughly after handling.
- P363 Wash contaminated clothing before reuse.
- P271 Use only outdoors or in a well-ventilated area.
- P273 Avoid release to the environment.
- P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

P312 Call a POISON CENTRE or doctor if you feel unwell.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310 Immediately call a POISON CENTRE or doctor.

P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P310 Immediately call a POISON CENTRE or doctor.

Storage:

P405 Store locked up.

Disposal:

P501 Dispose of contents and container in accordance with local, regional, national and international regulations.

Other Hazards

Not applicable.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No.	%	Other Identifiers	Other Names
Phenol, dinonyl-	84962-08-3	55-65		
Polyoxypropylenediamine	9046-10-0	6-9		
4-Nonylphenol, branched (mixed isomers)	84852-15-3	6-8		
Aminoethylethanolamine	111-41-1	6-7		
Benzyl alcohol	100-51-6	6-7		
Triethylenetetramine	112-24-3	5-7		
Morpholine, 4-aminopropyl-	123-00-2	4-5		

SECTION 4. FIRST-AID MEASURES

First-aid Measures

Inhalation

Take precautions to ensure your own safety before attempting rescue (e.g. wear appropriate protective equipment). Remove source of exposure or move to fresh air. If experiencing respiratory symptoms (e.g. coughing, shortness of breath, wheezing), call a Poison Centre or doctor.

Skin Contact

Take off immediately contaminated clothing, shoes and leather goods (e.g. watchbands, belts). Immediately rinse skin with lukewarm, gently flowing water for at least 30 minutes. Thoroughly clean clothing, shoes and leather goods before reuse or dispose of safely. Call a Poison Centre or doctor if you feel unwell.

Eye Contact

Immediately rinse the contaminated eye(s) with lukewarm, gently flowing water for at least 30 minutes, while holding the eyelid(s) open. If a contact lens is present, DO NOT delay flushing or attempt to remove the lens. Remove contact lenses, if present, after the initial 1-2 minutes and continue flushing for several additional minutes. Neutral saline solution may be used as soon as it is available. DO NOT INTERRUPT FLUSHING. If necessary, continue flushing during transport to hospital. Immediately call a Poison Centre or doctor.

Ingestion

Rinse mouth with water. Do not induce vomiting. Never give anything by mouth if person is rapidly losing consciousness, or is unconscious or convulsing. Do not induce vomiting. Immediately call a Poison Centre or doctor.

First-aid Comments

If exposed or concerned, get medical advice or attention. Some of the first-aid procedures recommended here require advanced first-aid training.

Most Important Symptoms and Effects, Acute and Delayed

Can cause severe irritation of the nose and throat. Causes moderate to severe irritation. Symptoms include pain, redness, and swelling. May burn the skin. Permanent scarring may result.

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Immediate Medical Attention and Special Treatment

Target Organs

Skin, eyes, digestive system.

Special Instructions

Not applicable.

Medical Conditions Aggravated by Exposure

None known.

SECTION 5. FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media

Carbon dioxide, dry chemical powder, appropriate foam, water spray or fog. Special "alcohol resistant fire-fighting foams".

Unsuitable Extinguishing Media

Do not use direct water stream - may cause fire to spread.

Specific Hazards Arising from the Product

Closed containers may rupture violently when heated releasing contents. Contain fire water runoff if possible - may cause environmental damage.

In a fire, the following hazardous materials may be generated: very toxic carbon monoxide, carbon dioxide; corrosive, oxidizing nitrogen oxides. During a fire, smoke may contain the original material in addition to combustion products of varying composition which may be toxic and/or irritating.

Special Protective Equipment and Precautions for Fire-fighters

Evacuate area. Fight fire from a safe distance or a protected location. For a massive fire, immediately evacuate the area and use unmanned hose holder or monitor nozzles. Knock down vapours or gases with water fog or fine water spray. Dike and recover contaminated water for appropriate disposal.

Fire-fighters may enter the area if positive pressure SCBA and full Bunker Gear is worn. See Skin Protection in Section 8 (Exposure Controls/Personal Protection) for advice on suitable chemical protective materials.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, and Emergency Procedures

Do not touch damaged containers or spilled product unless wearing appropriate protective equipment. Use the personal protective equipment recommended in Section 8 of this safety data sheet. Remove or isolate incompatible materials as well as other hazardous materials. Increase ventilation to area or move leaking container to a well-ventilated and secure area.

Environmental Precautions

Do not allow into any sewer, on the ground or into any waterway. If the spill is inside a building, prevent product from entering drains, ventilation systems and confined areas. Minimize the use of water to prevent environmental contamination.

Methods and Materials for Containment and Cleaning Up

Small spills or leaks: do not use absorbents. Contain spill using noncombustible material such as vermiculite, earth or sand. Do NOT use combustible materials such as sawdust. Place used absorbent into suitable, covered, labelled containers for disposal. Large spills or leaks: dike spilled product to prevent runoff. Collect using shovel/scoop or approved HEPA vacuum and place in a suitable container for disposal. Review Section 13 (Disposal Considerations) of this safety data sheet.

Other Information

Report spills to local health, safety and environmental authorities, as required.

SECTION 7. HANDLING AND STORAGE

Precautions for Safe Handling

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Do not get in eyes, on skin or on clothing. Prevent all skin contact. Do not breathe in this product. Do not swallow. Prevent uncontrolled release of product. Avoid release to the environment. Immediately report leaks, spills or failures of the safety equipment (e.g. ventilation system). Prevent contamination of surfaces that unprotected personnel may use. Keep containers tightly closed when not in use or empty. Wash hands thoroughly after handling this product and before eating, using the washroom or leaving work area. Thoroughly clean clothing, shoes and leather goods before reuse or dispose of safely.

Conditions for Safe Storage

Store in an area that is: cool, well-ventilated. Protect from conditions listed in Conditions to Avoid in Section 10 (Stability and Reactivity). Empty containers may contain hazardous residue. Store separately. Keep closed. Follow all precautions given on this safety data sheet. Comply with all applicable health and safety regulations, fire and building codes.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

Not available.

Consult local authorities for provincial or state exposure limits. A5 = Not suspected as a human carcinogen.

Appropriate Engineering Controls

General ventilation is usually adequate. For large scale use of this product: use local exhaust ventilation, if general ventilation is not adequate to control amount in the air. Provide eyewash and safety shower if contact or splash hazard exists.

Individual Protection Measures

Eye/Face Protection

Wear chemical safety goggles.

Skin Protection

Wear chemical protective clothing e.g. gloves, aprons, boots.

Polyethylene, butyl rubber, natural rubber, neoprene rubber, nitrile rubber, polyvinyl alcohol, polyvinyl chloride.

Respiratory Protection

Not normally required if product is used as directed. In case of inadequate ventilation wear respiratory protection.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Basic Physical and Chemical Properties

Appearance	Yellowish - amber liquid. Particle Size: Not available
Odour	Phenolic (Phenol, dinonyl-)
Odour Threshold	Not available
pH	Not available
Melting Point/Freezing Point	Not available (melting); Not available (freezing)
Initial Boiling Point/Range	> 200 °C (392 °F)
Flash Point	>= 100 °C (212 °F)
Evaporation Rate	Not available
Flammability (solid, gas)	Not applicable
Upper/Lower Flammability or Explosive Limit	13% (Benzyl alcohol) (upper); 1.3% (Benzyl alcohol) (lower)
Vapour Pressure	Not available
Vapour Density (air = 1)	> 1
Relative Density (water = 1)	0.90 - 0.94 (Phenol, dinonyl-)
Solubility	Practically insoluble in water
Partition Coefficient, n-Octanol/Water (Log Kow)	Not available
Auto-ignition Temperature	Not available

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Decomposition Temperature	Not available
Viscosity	Not available (kinematic); Not available (dynamic)
Other Information	
Physical State	Liquid
Molecular Formula	Not available
Bulk Density	Not available
Saturated Vapour Concentration	Not available
VOC (calculated)	290 g/l - water

SECTION 10. STABILITY AND REACTIVITY

Reactivity

Not reactive under normal conditions of use.

Chemical Stability

Normally stable.

Possibility of Hazardous Reactions

None expected under normal conditions of storage and use.

Conditions to Avoid

Prolonged exposure to high temperatures. Incompatible materials.

Incompatible Materials

Strong oxidizing agents (e.g. perchloric acid), strong acids (e.g. hydrochloric acid). Isocyanates and organic peroxides.

Hazardous Decomposition Products

Very toxic carbon monoxide, carbon dioxide; corrosive, oxidizing nitrogen oxides; very toxic, flammable aldehydes.

SECTION 11. TOXICOLOGICAL INFORMATION

Likely Routes of Exposure

Skin contact; skin absorption; eye contact; ingestion.

Acute Toxicity

Chemical Name	LC50	LD50 (oral)	LD50 (dermal)
Polyoxypropylenediamine		1100 mg/kg (rat)	1555 mg/kg (rabbit)
Triethylenetetramine	Not available	1716 mg/kg (rat)	1465 mg/kg (rabbit)
Morpholine, 4-aminopropyl-	51.3 mg/m3 (rat) (vapour)	~ 2000 mg/kg (rat)	> 2000 mg/kg (rabbit)
Benzyl alcohol	> 4.168 mg/L (rat) (4-hour exposure) (vapour)	1230 mg/kg (rat)	2000 mg/kg (rabbit)

Calculated (based on known toxicity levels of raw materials) ATE = 20.69 mg/l

Calculated (based on known toxicity levels of raw materials) ATE=1859 mg/kg

Calculated (based on known toxicity levels of raw materials) ATE=2580 mg/kg

Skin Corrosion/Irritation

May cause moderate or severe irritation based on information for closely related materials. There is limited evidence of moderate or severe irritation. Symptoms include pain, redness, and swelling. Repeated or prolonged exposure can irritate or burn the skin.

Serious Eye Damage/Irritation

Causes serious eye irritation based on skin irritation information. Symptoms include sore, red eyes, and tearing.

STOT (Specific Target Organ Toxicity) - Single Exposure

Inhalation

May cause severe nose and throat irritation. Symptoms may include headache, nausea, dizziness, drowsiness and

confusion.

Skin Absorption

May be harmful based on limited evidence. (Aminoethylethanolamine) symptoms may include redness, rash, swelling and itching.

Ingestion

May cause severe irritation or burns to the mouth, throat and stomach. (Phenol, dinonyl-)

Aspiration Hazard

Not known to be an aspiration hazard.

STOT (Specific Target Organ Toxicity) - Repeated Exposure

No information was located. May cause effects similar to STOT (Specific Target Organ Toxicity) - Single Exposure, as described above. Symptoms may include dry, red, cracked skin (dermatitis).

Respiratory and/or Skin Sensitization

No information was located for respiratory sensitization. May cause an allergic reaction (skin sensitization) based on limited evidence. (Aminoethylethanolamine). (Triethylenetetramine)

Carcinogenicity

Chemical Name	IARC	ACGIH®	NTP	OSHA
Benzyl alcohol	Not evaluated	Not Listed	Not Listed	

Not known to cause cancer.

Reproductive Toxicity

Development of Offspring

May harm the unborn child. (Phenol, dinonyl-)

Sexual Function and Fertility

May cause effects on sexual function and/or fertility. (Phenol, dinonyl-)

Effects on or via Lactation

No information was located.

Germ Cell Mutagenicity

Not known to be a mutagen.

Interactive Effects

No information was located.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Acute Aquatic Toxicity

Chemical Name	LC50 Fish	EC50 Crustacea	ErC50 Aquatic Plants	ErC50 Algae
Phenol, dinonyl-	2.725 mg/L (24 hour)	0.5 mg/L (Daphnia magna (water flea); 24 hour)		
Polyoxypropylenediamine	> 100 mg/L (96-hour)	15 mg/L (Daphnia magna (water flea); 48-hour)		
Triethylenetetramine	330 mg/L (Pimephales promelas (fathead minnow); 96-hour; static)	31.1 mg/L (Daphnia magna (water flea); 48-hour; static)	20 mg/L (Pseudokirchneriella subcapitata (algae); 72-hour; semi-static)	

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Benzyl alcohol	460 mg/L (Pimephales promelas (fathead minnow); 96-hour)	230 mg/L (Daphnia magna (water flea); 48-hour)		700 mg/L (Pseudokirchneriella subcapitata (algae); 72-hour; static)
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Chronic Aquatic Toxicity

Chemical Name	NOEC Fish	EC50 Fish	NOEC Crustacea	EC50 Crustacea
Triethylenetetramine	1.9 mg/L (21-day; semi-static)			
Benzyl alcohol	51 mg/L (Daphnia magna (water flea); 21-day)			

Persistence and Degradability

Predicted not to degrade rapidly based on quantitative structure-activity relationships. Does not degrade rapidly based on quantitative tests. (Triethylenetetramine)

Bioaccumulative Potential

This product and its degradation products are not expected to bioaccumulate.

Mobility in Soil

Studies are not available.

Other Adverse Effects

There is no information available.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal Methods

The required hazard evaluation of the waste and compliance with the applicable hazardous waste laws are the responsibility of the user. Contact local environmental authorities for approved disposal or recycling methods in your jurisdiction. Store product for disposal as described under Storage in Section 7 of this safety data sheet.

SECTION 14. TRANSPORT INFORMATION

Regulation	UN No.	Proper Shipping Name	Transport Hazard Class(es)	Packing Group
Canadian TDG	UN3145	Alkylphenols, Liquid, N.O.S. (Phenol, dinonyl-, 4-Nonylphenol, branched)	8	III

Environmental Hazards Not applicable

Special Precautions Not applicable

Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15. REGULATORY INFORMATION

Safety, Health and Environmental Regulations

Canada

Domestic Substances List (DSL) / Non-Domestic Substances List (NDSL)

All ingredients are listed on the DSL or are not required to be listed.

USA

Toxic Substances Control Act (TSCA) Section 8(b)

All ingredients are on the TSCA Inventory or are exempt from TSCA Inventory requirements under 40 CFR 720.

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SECTION 16. OTHER INFORMATION

SDS Prepared By	Compliance & Documentation Coordinator
Phone No.	905-795-9900
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Revision Indicators	The following SDS content was changed on May 27, 2019: SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES; VOC
Key to Abbreviations	ACGIH® = American Conference of Governmental Industrial Hygienists IARC = International Agency for Research on Cancer NIOSH = National Institute for Occupational Safety and Health OSHA = US Occupational Safety and Health Administration
References	CHEMINFO database. Canadian Centre for Occupational Health and Safety (CCOHS). Registry of Toxic Effects of Chemical Substances (RTECS®) database. Accelrys, Inc. Available from Canadian Centre for Occupational Health and Safety (CCOHS).
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