

Safety Data Sheet



Revision: 01/01/2020

Printing date: 09/04/2015

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

- **1.1 Product identifier**
- Trade name: **608 Chemical Resistant TuffPatch Kit Part A**
- Application of the substance/the preparation: Modified Epoxy Resin
- **1.3 Details of the supplier of the Safety Data Sheet**
- **Manufacturer/Supplier:**
Tuff Industrial Products, Inc.
2120 Roberts Dr.
Broadview, IL 60155 USA
Tel(800) 475-0068
- **1.4 Emergency contact: CHEMTREC® (800) 424-9300**

2 Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008:



GHS09 environment

Aquatic Chronic 2; H411: Toxic to aquatic life with long lasting effects



GHS07

Acute Toxicity, Oral category 4; H302: Harmful if swallowed
Acute Toxicity, Dermal category 4; H312: Harmful in contact with skin
Skin irritation, category 2; H315: Causes skin irritation
Skin Sensitizer, category 1; H317: May cause an allergic skin reaction
Eye irritation, category 2; H319: Causes serious eye irritation

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



Xn; Harmful

R22: Harmful if swallowed



Xi; Irritant

R36/38: Irritating to eyes and skin



Xi; Sensitising

R43: May cause sensitisation by skin contact.



N; Dangerous for the environment

R51/53: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Information concerning particular hazards for human and environment:

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

Safety Data Sheet

Revision: 01/01/2020

Printing date: 09/04/2015

Trade name: 608 Chemical Resistant TuffPatch Kit Part A

(Cont. from page 1)

· **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.

· **2.2 Label elements**

Labeling according to Regulation (EC) No 1272/2008:

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

· **Hazard pictograms**



This pictogram only applicable for EU regulations. Not for use in the United States (OSHA GHS).



GHS07



GHS09

· **Signalword:** Danger Warning

· **Hazard-determining components of labeling:**

Bisphenol F / Epichlorohydrin / co-Formaldehyde formaldehyde

1-chloro-2,3-epoxypropane

1,3-bis(2,3-epoxypropoxy)-2,2-dimethylpropane

Bisphenol A, Epichlorohydrin resin

· **Hazard statements:**

H302: Harmful if swallowed

H312: Harmful in contact with skin

H315: Causes skin irritation.

H319: Causes serious eye irritation.

H317: May cause an allergic skin reaction.

H411: Toxic to aquatic life with long lasting effects.

Contains epoxy constituents. May produce an allergic reaction.

0 percent of the mixture consists of ingredient(s) of unknown toxicity..

· **Precautionary statements:**

P101: If medical advice is needed, have product container or label at hand

P102: Keep out of reach of children

P103: Read label before use

P261: Avoid breathing dust/fume/gas/mist/vapours/spray.

P264: Wash hands thoroughly after handling

P270: Do not eat, drink or smoke when using this product

P271: Use only in well ventilated area

P272: Contaminated work clothing should not be allowed out of the workplace

P273: Avoid release to the environment.

P280: Wear protective gloves/protective clothing/eye protection/face protection

· **Response Statements**

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

P321: Specific treatment (see on this label).

P330: Rinse mouth

P362: Take off contaminated clothing and wash before reuse.

P363: Wash contaminated clothing before reuse.

P332+P313: If skin irritation occurs: Get medical advice/attention.

P333+P313: If skin irritation or rash occurs: Get medical advice/attention.

Safety Data Sheet

Revision: 01/01/2020

Printing date: 09/04/2015

Trade name: 608 Chemical Resistant TuffPatch Kit Part A (Cont. from page 2)

P337+P313: If eye irritation persists. Get medical advice/attention
 P302+P525: IF ON SKIN. Wash with plenty of soap and water
 P301+P312: IF SWALLOWED call a POISON CENTER/doctor/physician if you feel unwell
 P361+P364: Take off immediately all contaminated clothing and wash before reuse
 P391: Collect spillage
 P501: Dispose of contents/container in accordance with local/regional/national/international regulations

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)



Health = 2
 Fire = 1
 Reactivity = 0

2.3 Other hazards

Results of PBT and vPvB assessment

PBT: Not applicable.

vPvB: Not applicable

3 Composition/Information on Ingredients

3.1 Mixtures

Description: Mixture of substances listed below.

Dangerous components:

Impurities and stabilising additives:		
CAS: 50-00-0 EINECS: 200-001-8 Index number: 605-001-00-5	formaldehyde T R23/24/25; C R34; Xn R40; Xi R43 Carc. Cat. 3 Acute Tox. 3, H301; Acute Tox. 3, H311; Acute Tox. 3, H331 Carc. 2, H351 Skin Corr. 1B, H314 Skin Sens. 1, H317	4%
CAS: 106-89-8 EINECS: 203-439-8 Index number: 603-026-00-6	1-chloro-2,3-epoxypropane T Carc. Cat. 2 R45-23/24/25; C R34; Xi R43 R10 Flam. Liq. 3, H226 Acute Tox. 3, H301; Acute Tox. 3, H311; Acute Tox. 3, H331 Carc. 1B, H350 Skin Corr. 1B, H314 Skin Sens. 1, H317	20%






Safety Data Sheet

Revision: 01/01/2020

Printing date: 09/04/2015

Trade name: 608 Chemical Resistant TuffPatch Kit Part A

(Cont. from page 3)

CAS: 25068-38-6	Bisphenol A , Epichlorohydrin resin	76%
	 Xi R21/22  R36  R38	
	 Skin Irrit. 2, H315; Skin Sens. 1, H317  Acute Tox. 3, H302	

4 First aid measures

4.1 Description of first aid measures

General information:

Take affected persons out of danger area and lay down.

After inhalation:

If breathing becomes difficult remove victim to fresh air. If required provide artificial respiration to support vital functions. Keep patient warm. Seek medical attention if symptoms persist. In case of unconsciousness place patient stably in side position for transport.

After skin contact:

Immediately wash with water and soap and rinse thoroughly.
 Immediately remove any clothing soiled by the product.
 Do not pull solidified product off skin
 Get medical attention if irritation develops or persists.
 Launder contaminated clothing before re-use

After eye contact:

Remove contact lenses if worn.
 Open eyes while under gentle running water for at least 15 minutes
 Seek medical attention if irritation develops

After swallowing:

Do not induce vomiting or give diluents (milk or water). Seek medical advice immediately.

4.2 Most important symptoms and effects, both acute and delayed

Allergic reactions
 Nausea
 Cramp
 Breathing difficulty

Hazards:

Danger of impaired breathing
 Danger of pulmonary oedema

4.3 Indications of any immediate medical attention and special treatment

Treat skin and mucous membrane with antihistamine and corticoid preparations. Monitor circulation. Treat symptoms and reduce over-exposure. Later observation for pneumonia and pulmonary oedema

(Cont. on page 4)

Safety Data Sheet

Revision: 01/01/2020

Printing date: 09/04/2015

Trade name: 608 Chemical Resistant TuffPatch Kit Part A

(Cont. from page 4)

5 Firefighting Measures

· **5.1 Extinguishing media Suitable extinguishing agents:**

Suitable extinguishing agents:

Carbon Dioxide, Dry Chemical, Foam, Water Fog

· **5.2 Special hazards arising from the substance or mixture:**

Formation of toxic gases is possible during heating or in case of fire.

· **5.3 Advice for firefighters**

Isolate materials not yet involved in the fire and protect. As in any fire, wear self-contained breathing apparatus pressure-demand (MSHA/NOISH approved or equivalent) and full protective gear. Do not use water jet (frothing possible). Water spray to cool containers or protect personnel. Use with caution. Water runoff can cause environmental damage. Dike and collect waster used to fight fire.

Protective equipment:

Wear self-contained respiratory protective device. Wear fully protective suit.

6 Accidental Release Measures

· **6.1 Personal precautions, protective equipment and emergency procedures**

Personnel should be trained for spill response operations.

Remove persons from danger area.

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:** All work practices must be aimed at eliminating environmental contamination. Do not allow to enter sewers/ surface or ground water.

· **6.3 Methods and material for containment and cleaning up:**

Contain spill if safe to do so. using an absorbant liquid binding material (sand, diatomite, acid binders, universal binders, sawdust)

Prevent entry into drains, sewers, and other waterways.

Send for recovery or disposal in suitable receptacles

Dispose of in accordance with applicable Federal, State, and local procedures (see Section 13, Disposal Considerations).

Clean the affected are carefully; Suitable cleaners are: Organic solvent

· **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**

Ensure good ventilation/exhaustion at the workplace. As with all chemicals, avoid getting this product ON YOU or IN YOU. Wash thoroughly after handling this product. Do not eat, drink, smoke, or apply cosmetics while handling this product. Avoid breathing vapors/mists generated by this product. Remove contaminated clothing immediately.

Prevent formation of aerosols

· **7.2 Conditions for safe storage, including any incompatibilities**

Storage:

Requirements to be met by storerooms and receptacles:

Store between 10° and 50°C (45°-125°F) and avoid contact with skin and eyes. Do not store near acids or amines.

Ground all transfer equipment. Good general housekeeping procedures should be followed. Do not eat, drink or smoke while using material.

(Cont. on page 6)

Safety Data Sheet

Revision:01/01/2020

Printing date: 09/04/2015

Trade name: 608 Chemical Resistant TuffPatch Kit Part A

(Cont. from page 5)

Information about storage in one common storage facility:

Store away of oxidizing agents

Store away from foodstuffs

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 with limit values that require monitoring at the workplace: Not required

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace

Additional information: The lists valid during the making were used as basis

· 8.2 Exposure controls

Personal protective equipment:

General protective and hygienic measures:

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

The following information on appropriate Personal Protective Equipment is provided to assist employers in complying with OSHA regulations found in 29 CFR Subpart I (beginning at 1910.132) or equivalent standard of Canada, or standards of EU member states (including EN 149 for respiratory PPE, and EN 166 for face/eye protection), and those of Japan. Please reference applicable regulations and standards for relevant details.



Respiratory protection

Use suitable respiratory protective device in case of insufficient ventilation.

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

Maintain airborne contaminant concentrations below guidelines listed above, if applicable. If necessary, use only respiratory protection authorized in the U.S. Federal OSHA Respiratory Protection Standard (29 CFR 1910.134), equivalent U.S. State standards, Canadian CSA Standard Z94.4-93, the European Standard EN149, or EU member states.



Protective gloves

Protection of hands: Use chemical resistant gloves to prevent skin contact. If necessary, refer to U.S OSHA 29 CFR 1910.138 or appropriate Standards of Canada

Material of gloves

Butyl rubber, BR

Nitrile rubber, NBR

Neoprene 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

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

(Cont. on page 7)

Safety Data Sheet

Revision: 01/01/2020

Printing date: 09/04/2015

Trade name: 608 Chemical Resistant TuffPatch Kit Part A

(Cont. from page 6)

**Eye protection:****Tightly sealed goggles**

Safety glasses or chemical goggles as appropriate to prevent eye contact. If necessary, refer to U.S. OSHA 29 CFR 1910.133 or appropriate Canadian Standards
Goggles recommended during refiling

**Body Protection:**

Use body protection appropriate to prevent contact (e.g. lab coat, overalls). If necessary, refer to appropriate Standards of Canada, or appropriate Standards of the EU, Australian Standards, or relevant Japanese Standards

9 Physical and Chemical Properties

9.1 Information on basic physical and chemical properties

General Information

Appearance:

Form:	Fluid
Color:	White
Odor:	Irritant Characteristic
Odor threshold:	Not determined

pH-value:	Not determined.
Change in condition	
Melting point/Melting range:	Undetermined
Boiling point/Boiling range:	392°F (200°C)
Flash point:	302°F (150°C)
Flammability (solid, gaseous):	Not applicable
Ignition temperature:	>302°F (>150°C)
Decomposition temperature:	Not determined.
Self-igniting:	Not determined.
Danger of explosion:	Product does not present explosion hazard
Explosion limits:	
Lower:	Not determined.
Upper:	Not determined.
Vapor pressure at 25°C:	1.0 hPa (0.75mm Hg)

(Cont. on page 8)

Safety Data Sheet

Revision: 01/01/2020

Printing date: 09/04/2015

Trade name: 608 Chemical Resistant TuffPatch Kit Part A

(Cont. from page 7)

Density at 20°C:	1.07 g/cm ³
Relative density:	Not determined
Vapour density:	5.66 pounds per gallon @25°C
Evaporation rate	Not determined
Solubility in / Miscibility with water:	Not miscible or difficult to mix
Segregation coefficient (n-octanol/water):	Not determined.
Viscosity:	
Dynamic @ 20°C:	15 mPas
Kinematic:	Not determined

· **9.2 Other information:** No further relevant information available

10 Stability and Reactivity

- **10.1 Reactivity**
- **10.2 Chemical stability:** Product is stable
Thermal decomposition / conditions to be avoided:
 No decomposition if used and stored according to specifications
- **10.3 Possibility of hazardous reactions**
 Reacts with peroxides and other radical forming substances.
 Reacts with oxidizing agents.
 Reacts with amines.
 Exothermic polymerization
- **10.4 Conditions to avoid:**
 Keep ignition sources away - Do not smoke
 Contact with incompatible materials.
- **10.5 Incompatible materials:**
 Avoid contact with moisture and/or water
 Prevent contact with halogens
 Prevent contact with strong oxidizing agents
 Keep away from acids
- **10.6 Hazardous decomposition products:**
 Nitrogen oxides (NO_x)
 Carbon monoxide and carbon dioxide

11 Toxicological Information

- 11.1 Information on toxicological effects**
- Acute toxicity:**
- LD/LC50 values relevant for classification:**
 LD50 Acute Dermal 2,100 mg/kg (rabbit)
 LD50 Acute Oral 2,000 mg/kg (rat)
- Primary irritant effect:**
- On the skin:** Irritant to skin and mucous membranes.
- On the eye:** Irritant to eyes
- Sensitization:**
 Sensitization possible through skin contact.
 Sensitizing effect through inhalation is possible by prolonged exposure.
- Additional toxicological information:**
 Irritant
 Harmful

(Cont. on page 9)

Safety Data Sheet

Revision: 01/01/2020

Printing date: 08/31/2015

Trade name: 608 Chemical Resistant TuffPatch Kit Part A

(Cont. from page 8)

12 Ecological Information

12.1 Toxicity

Aquatic toxicity:

The product contains materials that are harmful to the environment.

- **12.2 Persistence and degradability:** Moderately /partly biodegradable
- **12.3 Bioaccumulative potential:** No further relevant information available.
- **12.4 Mobility in soil:** No further relevant information available.

Ecotoxicological effects:

Remark: Toxic to fish

Additional ecological information:

General notes:

Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water Do not allow product to reach ground water, water course or sewage system. Must not reach sewage water or drainage ditch undiluted or unneutralized. Danger to drinking water if even small quantities leak into the ground.

Poisonous for fish and plankton in water bodies

Toxic for aquatic organisms

- **12.5 Results of PBT and vPvB assessment**

PBT: Not applicable.

vPvB: Not applicable.

- **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. Waste disposal must be in accordance with appropriate Federal, State, and local regulations, those of Canada, Australia, EU Member States and Japan.

Uncleaned packaging:

Recommendation: Disposal must be made according to official regulations.

Recommended cleansing agents: Solvent naphtha

RCRA Waste Code: None listed.

EU Waste Code: None listed

14 Transport Information

14.1 UN-Number

DOT

Not Regulated.

IMDG, IATA/ADR

This product is not classified by the United Nations Economic Commission for Europe to be dangerous goods

14.2 UN proper shipping name

DOT, IMDG, IATA

Not Regulated.

ADR

Not Regulated.

(Cont. on page 10)

Safety Data Sheet

Revision:01/01/2020

Printing date: 09/04/2015

Trade name: 608 Chemical Resistant TuffPatch Kit Part A (Cont. from page 9)

14.3 Transport hazard class(es) DOT, ADR, IMDG, IATA	Not Regulated.
14.4 Packing group DOT, ADR, IMDG, IATA	Not Regulated.
14.5 Environmental hazards: Marine pollutant:	This product does not contain ingredients that are classified by the DOT as a Marine Pollutant (as defined by 49 CFR 172.101. Appendix B)
14.6 Special precautions for user Danger code (Kemler): EMS Number:	Not Regulated. Not Regulated.
14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable
Transport/Additional information: Tunnel restriction code UN "Model Regulation":	No data available No data available

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): Substance is not listed.
Section 313 (Specific toxic chemical listings): Substance is not listed.
TSCA (Toxic Substances Control Act): Substance is listed

Proposition 65 (California):

Chemicals known to cause cancer or reproductive harm:

Chemicals known to cause cancer: 50-00-0 formaldehyde 106-89-8 1-chloro-2,3-epoxypropane
Chemicals known to cause reproductive toxicity for females: None of the ingredients are listed.
Chemicals known to cause reproductive toxicity for males: 106-89-8 1-chloro-2,3-epoxypropane.
Chemicals known to cause developmental toxicity: None of the ingredients are listed.

Revision:01/01/2020

Printing date: 09/04/2015

Trade name: 608 Chemical Resistant TuffPatch Kit Part A

(Cont. from page 10)

Carcinogenic Categories

EPA (Environmental Protection Agency): None of the ingredients is listed.
IARC (International Agency for Research on Cancer): Formaldehyde 50-00-0
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.
OSHA-Ca (Occupational Safety & Health Administration): None of the ingredients is listed.

Canada

Canadian Domestic Substances List (DSL): All ingredients are listed.
Canadian Ingredient Disclosure list (limit 0.1%): 50-00-0 formaldehyde 106-89-8 1-chloro-2,3-epoxypropane
Canadian Ingredient Disclosure list (limit 1%): None of the ingredients are 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

- H302: Harmful if swallowed
- H312: Harmful in contact with skin
- H315: Causes skin irritation.
- H319: Causes serious eye irritation.
- H317: May cause an allergic skin reaction.
- H411: Toxic to aquatic life with long lasting effects.
- P101: If medical advice is needed, have product/container or label at hand
- P102: Keep out of reach of children
- P103: Read label before use
- P261: Avoid breathing dust/fume/gas/mist/vapours/spray.
- P264: Wash hands thoroughly after handling
- P270: Do not eat, drink or smoke when using this product
- P271: Use only in well ventilated area
- P272: Contaminated work clothing should not be allowed out of the workplace
- P273: Avoid release to the environment.
- P280: Wear protective gloves/protective clothing/eye protection/face protection
- P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P321: Specific treatment (see on this label).
- P330: Rinse mouth
- P362: Take off contaminated clothing and wash before reuse.
- P363: Wash contaminated clothing before reuse.
- P332+P313: If skin irritation occurs: Get medical advice/attention.
- P333+P313: If skin irritation or rash occurs: Get medical advice/attention.

Revision: 01/01/2020

Printing date: 09/04/2015

Trade name: 608 Chemical Resistant TuffPatch Kit Part A

(Cont. from page 11)

Abbreviations and Acronyms

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road IMDG:

International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

ACGIH: American Conference of Governmental Industrial Hygienists

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

WHMIS: Workplace Hazardous Materials Information System (Canada)

VOC: Volatile Organic Compounds (USA, EU)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

The information contained herein is based on data considered accurate. However, no warranty is expressed or implied regarding the accuracy of these data or the results to be obtained from the use thereof.

Vendor assumes no responsibility for injury to vendee or third persons proximately caused by the material if reasonable safety procedures are not adhered to as stipulated in the data sheet. Additionally, vendor assumes no responsibility for injury to vendee or third persons proximately caused by abnormal use of the material even if reasonable safety procedures are followed. Furthermore, vendee assumes the risk of his use of the material for either Component A and/or B or the combination of both components

Tuff Industrial Products is a registered Trademark of Tuff Industrial Products, Inc. Complies with Federal Standard No. 29 CFR 1910.1200

Safety Data Sheet







Revision: 01/01/2020

Printing date: 09/21/2015

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

- **1.1 Product identifier**
- Trade name: **608 Chemical Resistant TuffPatch Kit Part B**
- **Application of the substance/the preparation:** Blended epoxy curing agent
- **1.3 Details of the supplier of the Safety Data Sheet**
Manufacturer/Supplier:
 Tuff Industrial Products, Inc.
 2120 Roberts Dr.
 Broadview, IL 60155 USA
 Tel(800) 475-0068
- **1.4 Emergency contact:** CHEMTREC® (800) 424-9300

2 Hazards identification

- **2.1 Classification of the substance or mixture:**
 In compliance with EC regulation No. 1272/2008, 29CFR1910/1200 and GHS Rev. 3 and amendments.
Hazard-determining components of labeling:
 Methyleneoxide polymer with benzeamine, hydrogenated
 4,4'-methylenebis(cyclohexylamine)
 Benzyl alcohol
 Cycloaliphatic amines
- **2.2 Label elements**
Labeling according to Regulation (EC) No 1272/2008:
 The product is classified and labeled according to the CLP regulation.
GHS Label Elements
 Skin Corrosion, category 1B
 Skin Sens., category 1A
 Acute Toxicity (oral, dermal, inalation), category 1
 Serious eye damage, category 1
 Aquatic Chronic, category 3
Hazard pictograms




 GHS05 GHS07 GHS09 GHS08
Signal word: Danger
Hazard statements:
 H302: Harmful if swallowed
 H314: Causes severe skin burns and eye damage
 H317: May cause an allergic skin reaction
 H373a: May cause damage to organs through prolonged or repeated exposure if swallowed
 H412: Harmful to aquatic life with lasting effects

(Cont. on page 2)

Safety Data Sheet

Revision: 01/01/2020

Printing date: 09/21/2015

Trade name: 608 Chemical Resistant TuffPatch Kit Part B

(Cont. from page 1)

Precautionary statements:

P260: Do not breathe dust/fume/gas/mist/vapors/spray.

P261: Avoid breathing dust/fume/gas/mist/vapors/spray

P264: Wash hands thoroughly after handling

P270: Do not eat, drink or smoke when using this product.

P272: Contaminated work clothing should not be allowed out of the work place

P273: Avoid release into the environment

P280: Wear protective gloves/protective clothing/eye protection/face protection

P301+P312: IF SWALLOWED: Call POISON CENTER or doctor/physician if you feel unwell

P301+P330+P331: IF SWALLOWED: rinse mouth. Do NOT induce vomiting

P302+P352: IF ON SKIN: Wash with soap and water

P303+P361+P353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower

P304+P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing

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 POISON CENTER or doctor/physician

P330: Rinse mouth

P333+P313: If skin irritation or rash occurs; Get medical attention/advice

P363: Wash contaminated clothing before reuse

P405: Store locked up

P501: Disposal of contents/containers to be specified in accordance with regulations

Hazard description

Hazards Not Otherwise Classified (HNOC): None

Classification system:

The classification is according to EC regulation No. 1272/2008, 29CFR1910/1200 and GHS Rev. 3 and amendments, 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

Canadian WHMIS Classification:

None

NFPA ratings (scale 0 - 4)



Health = 3

Fire = 1

Reactivity = 0

HMIS-ratings (scale 0 - 4)



Health = 3

Fire = 1

Reactivity = 0

HMIS Long Term Health Hazard Substances

None of the ingredients is listed.

2.3 Other hazards

Results of PBT and vPvB assessment

PBT: Not applicable.

vPvB: Not applicable.

(Cont. on page 3)

Revision: 01/01/2020





















Printing date: 09/21/2015

Trade name: 608 Chemical Resistant TuffPatch Kit Part B

(Cont. from page 2)

3 Composition/Information on Ingredients

- **3.1 Chemical characterization:** None
- **3.2 Description:** None
- **3.3 Hazardous components (percentages by weight):**

CAS: 135108-88-2	Methyleneoxide, polymer with benzeamine, hydrogenated  C R34;  Xn R22  Skin Corr. 1B, H314  Acute Tox. 4, H302;	35%
CAS: 1100-51-6 EINECS: 202-859-9	Benzyl alcohol  Xn R20/22  Acute Tox. 4, H302; Acute Tox. 4, H332	35%
CAS: 1761-71-3 EINECS: 217-168-8	4,4'-methylenebis(cyclohexylamine)  C R34;  Xn R22  STOT RE 2, H373  Skin Corr. 1B, H314  Aquatic Chronic 2, H411  Acute Tox. 4, H302;	20%
CAS: Not Available	Cycloaliphatic amines  C R35;  Xn R20/22;  Xi R36;  Xi R37;  Acute Tox. 4, H332; Accute Tox. 3, H335;  Serious eye damage 1, H318; Serious eye damage 2A, H319  Skin Corr. 1A; H314  Acute Tox. oral 4, H302	10%

- **3.4 Additional Information:** None

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 accident

After inhalation:

Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist. In case of unconsciousness place patient stably in side position for transportation.

After skin contact:

Immediately wash with soap and water and rinse thoroughly

If skin irritation continues consult doctor

After eye contact:

Protect unexposed eye.

Rinse/flush exposed eye(s) gently using water for 15-20 minutes.

Remove contact lens(es) if able to do so during rinsing.

Keep eyelids open while rinsing.

Immediately call a POISON CENTER or doctor/physician

(Cont. on page 4)

Safety Data Sheet

Revision:01/01/2020

Printing date: 09/21/2015

Trade name: 608 Chemical Resistant TuffPatch Kit Part B

(Cont. from page 3)

After swallowing:

Rinse mouth thoroughly.

Do not induce vomiting call for medical help immediately.

Drink Plenty of water

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

Eye disease

Skin disorders

Allergies

Asthma

· 4.3 Indications of any immediate medical attention and special treatment

Treat skin and mucous membrane with antihistamine and corticoid preparations. Monitor circulation Treat symptoms and recusse over-exposure.

5 Firefighting Measures

· 5.1 Extinguishing media Suitable extinguishing agents:

Suitable extinguishing agents:

Use alcohol-resistant foam, sry chemical, dry sand, limestone powder and Cabon Dioxide (CO₂)

· 5.2 For safety reasons unsuitable extinguishing agents:

None known.

· 5.3 Special hazards arising from the substance or mixture:

Incomplete combustion may form carbon monoxide. May generate ammonia gas. May generate nitrogen oxide gasses. Burning produces noxious and toxic fumes. Downwind personnel must be evacuated

· 5.4 Advice for firefighters

Protective equipment:

Wear self-contained respiratory protective device

Wear fully protective suit

· 5.5 Additional information:

Do not allow run-off from fire fighting to enter drains or water courses. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations

6 Accidental Release Measures

· 6.1 Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Keep unprotected persons away

Ensure adequate ventilation

· 6.2 Environmental precautions:

Should not be released into environment.

Prevent from reaching drains, sewer, or waterway.

· 6.3 Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust.

Dispose contaminated material as waste according to item13

Additional advice:

Open enclosed spaces to outside atmosphere. If possible, stop flow of product

· 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.

Safety Data Sheet

Revision: 01/01/2020

Printing date: 09/21/2015

Trade name: 608 Chemical Resistant TuffPatch Kit Part B

(Cont. from page 4)

7 Handling and Storage

7.1 Precautions for safe handling

Ensure good ventilation/exhaust at the workplace

Prevent formation of aerosols

Avoid contact with skin, eyes, and clothing.

Follow good hygiene procedures when handling chemical materials. Refer to Section 8.

Follow proper disposal methods. Refer to Section 13.

Do not eat, drink, smoke, or use personal products when handling chemical substances.

Contaminated Leather items, such as shoes, belts, watchbands, should be removed and destroyed.

7.2 Conditions for safe storage, including any incompatibilities

Storage:

Requirements to be met by store room and receptacles: Store in a cool location.

Information about storage in one common storage facility:

Store away from food stuffs

Do not store together with oxidizing and acidic materials

Keep containers tightly closed in a dry, cool ventilated place

7.3 Specific end use(s):

No additional information

8 Exposure Controls/Personal Protection

8.1 Control parameters

Ingredients with limit values that require monitoring at the workplace:

100-51-6 Benzyl alcohol

WEEL (USA) 10ppm

8.2 Exposure controls

Personal protective equipment:

General protective and hygienic measures:

Keep away from foodstuffs, beverages and feed. Immediately remove all soiled and contaminated clothing

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

The following information on appropriate Personal Protective Equipment is provided to assist employers in complying with OSHA regulations found in 29 CFR Subpart I (beginning at 1910.132) or equivalent standard of Canada, or standards of EU member states (including EN 149 for respiratory PPE, and EN 166 for face/eye protection), and those of Japan. Please reference applicable regulations and standards for relevant details.

Appropriate Engineering controls:

Emergency eye wash fountains and safety showers should be available in the immediate vicinity of use or handling.

Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapor and mists below the applicable workplace exposure limits (Occupational Exposure Limits-OELs) indicated above.

(Cont. on page 6)

Safety Data Sheet

Revision:01/01/2020

Printing date: 09/21/2015

Trade name: 608 Chemical Resistant TuffPatch Kit Part B

(Cont. from page 5)



Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. When necessary use NIOSH approved breathing equipment.



Protective gloves

The glove material has to be impermeable and resistant to the product/the substance/ the preparation. Select glove material impermeable and resistant to the substance. Select glove material based on rates of diffusion and degradation. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Use proper glove removal technique without touching outer surface. Avoid skin contact with used gloves.



Body Protection:

Use body protection appropriate to prevent contact (e.g. lab coat, overalls, slicker suit, rubber or plastic boots). If necessary, refer to appropriate Standards of Canada, or appropriate Standards of the EU, Australian Standards, or relevant Japanese Standards



Eye protection:

Wear equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Safety glasses or goggles are appropriate eye protection.



General hygienic measures::

Perform routine housekeeping.
Wash hands before breaks and at the end of work.
Avoid contact with skin, eyes, and clothing.
Before wearing wash contaminated clothing.

(Cont. on page 7)

Safety Data Sheet

Revision: 01/01/2020

Printing date: 09/21/2015

Trade name: 608 Chemical Resistant TuffPatch Kit Part B

(Cont. from page 6)

9 Physical and Chemical Properties

9.1 Information on basic physical and chemical properties

General Information

Appearance:

Form:	Liquid
Color:	Brown
Odor:	Ammoniacal
Odor threshold:	Not determined

pH-value:	11.6
Change in condition	
Freezing Point:	Not Available
Boiling point/Boiling range:	392°F (200°C)
Flash point:	>212°F (>100 °C)
Flammability (solid, gaseous):	Not applicable
Ignition temperature:	815°F (435°C)
Decomposition temperature:	Not data available
Self-igniting:	Not determined
Danger of explosion:	Product does not present an explosion hazard
Explosion limits:	
Lower:	Not determined
Upper:	Not determined
Vapour Pressure (mmHg):	<5.17 mmHg @ 21°C
Density at 20°C:	0.98 g/cm ³
Relative density	0.98 (water = 1)
Vapour density	Not determined
Evaporation rate	Not determined
Solubility in / Miscibility with water:	Fully miscible
Specific Gravity 20°C: (Water = 1):	No data available
Partition coefficient (n-octanol/water):	Not determined
Viscosity:	
Dynamic:	No data available
Kinematic:	No data available
Solvent content:	
Organic solvents:	No data available
VOC (EC)	No data available

9.2 Other information: No data available

(Cont. on page 8)

Safety Data Sheet

Revision: 01/01/2020

Printing date: 09/21/2015

Trade name: 608 Chemical Resistant TuffPatch Kit Part B

(Cont. from page 7)

10 Stability and Reactivity

10.1 Reactivity

Nonreactive under normal conditions.

10.2 Chemical stability

Thermal decomposition / conditions to be avoided:

Stable under normal conditions. No decomposition if used according to specifications

10.3 Possibility of hazardous reactions

Reacts with acids, alkalis, oxidizing agents and peroxides.

10.4 Conditions to avoid: No further relevant information is available

10.5 Incompatible materials:

CAUTION! N-Nitrosamines, many of which are known to be potent carcinogens, may be formed when the product comes in contact with nitrous acid, nitrites or atmospheres with high nitrous oxide concentrations.

Nitrous acid and other nitrosating agents

Organic acids (i.e. acetic, citric acid etc.)

Mineral acids

Sodium hypochlorite

Product slowly corrodes copper, aluminum, zinc and galvanized surfaces.

Reaction with peroxides may result in violent decomposition of peroxide possibly creating an explosion

Oxidizing agents

10.6 Hazardous decomposition products:

Nitrogen oxides (NO_x)

Nitrogen oxide can react with water vapors to form corrosive nitric acid

Ammonia

Carbon monoxide

Carbon dioxide (CO₂)

Nitrosamine

11 Toxicological Information

11.1 Information on toxicological effects

LD/LC50 values relevant for classification:

Oral LD50 1,230 mg/kg (rat) 100-51-6

Dermal LD50 2,000 mg/kg (rabbit) 100-51-6

Oral LD50 >1,200 mg/kg (rat) 1751-71-3

Dermal LD50 >2,000 mg/kg (rabbit) 1751-71-3

11.2 Primary irritant effect:

Skin: Caustic effect on skin and mucous membrane

Eye: Strong caustic effect

11.3 Sensitization:

May cause sensitization of susceptible persons by skin contact

11.4 Additional toxicological information: No additional information.

11.5 Carcinogenic categories:

No data available

11.6 Repeated dose toxicity:

Harmful

Corrosive

Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach

(Cont. on page 9)

Revision: 01/01/2020

Printing date: 09/21/2015

Trade name: 608 Chemical Resistant TuffPatch Kit Part B

(Cont. from page 8)

12 Ecological Information

· **12.1 Toxicity**

- 1751-71-3 LC50 - Leuciscus idus (Golden orfe) - 46 mg/l - 96 h
- 1751-71-3 LC50 - Leuciscus idus (Golden orfe) - >100 mg/l - 48 h
- 1751-71-3 LC50 - Daphnia magna (Water flea) - 6.84 mg/l - 48 h
- 1751-71-3 LC50 - Algae - 140 200 mg/l - 72 h

· **12.2 Persistence and degradability:**

No information available

· **12.3 Bioaccumulative potential:**

No information available.

· **12.4 Mobility in soil:** No information available.

General notes:

Water hazard class 2 (German regulation) (Self-assessment) hazardous for water
Do not allow product to reach ground water, water course or sewage system

· **12.5 Results of PBT and vPvB assessment**

PBT: No additional information..

vPvB: No additional information.

· **12.6 Other adverse effects:**

No information available.

13 Disposal Considerations

· **13.1 Waste treatment methods (consult local, regional and national authorities for proper disposal)**

Relevant Information:

Contact a licensed professional waste disposal service to dispose of this material. Dispose of empty containers as unused product. It is the responsibility of the waste generator to properly characterize all waste materials according to applicable regulatory entities (US 40CFR262.11). Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations. Ensure complete and accurate classification.

14 Transport Information

14.1 UN-Number:

DOT, IMDG, IATA, ADR, ADN

UN2735

14.2 UN-Proper Shipping Name

DOT, IMDG, IATA, ADR, ADN

Amines, Liquids, Corrosive, N.O.S.,
(Cycloaliphatic amine).

14.3 Transport hazard class(es)

DOT, ADR, IMDG, IATA



Class 8

Label 8 Corrosive

14.4 Packing group

DOT, ADR, IMDG, IATA, ADN

III

Revision:01/01/2020

Printing date: 09/21/2015

Trade name: 608 Chemical Resistant TuffPatch Kit Part B

(Cont. from page 9)

14.5 Environmental hazards:	This product contains a substance that is regulated as a Marine Pollutant or meets the definition of toxic to the aquatic environment
14.6 Special precautions for user	Corrosive substances.
Danger code (Kemler):	None
Segregation:	None
14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
14.8 Transport/Additional information:	
Transportation category	None
Tunnel restriction code	Not applicable
UN "Model Regulation":	UN2735, Amines, Liquids, Corrosive, N.O.S., (Cycloaliphatic amine), 8, III

15 Regulatory Information

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

North American

SARA:

Section 312 (Hazard Classifications): Accute Health Hazard
Section 313 (Specific toxic chemical listings): None of the ingredients are listed
Section 355 (extremely hazardous substances): None of the ingredients are listed.
CERCLA (Comprehensive Environmental Response, Clean up and Liability Act) Reportable Spill Quantity: None of the ingredients are listed.
TSCA (Toxic Substances Control Act):
Inventory: All ingredients are listed.
Rules and Orders: None of the ingredients are listed.
NTP (National Toxicology Program):
None of the ingredients are listed.

Canadian

Canadian Domestic Substances List (DSL): All ingredients are listed
Canadian Ingredient Disclosure list (limit 0.1%): None of the ingredients are listed.
Canadian Ingredient Disclosure list (limit 1%): 100-51-6 Benzyl alcohol

Proposition 65 (California)

Chemicals known to cause cancer: None of the ingredients listed
Chemicals known to cause reproductive toxicity for females: None of the ingredients listed
Chemicals known to cause reproductive toxicity for males: None of the ingredients listed
Chemicals known to cause developmental toxicity: None of the ingredients listed

Revision: 01/01/2020

Printing date: 09/21/2015

Trade name: 608 Chemical Resistant TuffPatch Kit Part B

(Cont. from page 10)

Carcinogenic Categories

EPA (Environmental Protection Agency)
None of the ingredients are listed.
IARC (International Center for Research on Cancer)
None of the ingredients are listed.
TLV (Threshold Limit Value established by ACGIH)
None of the ingredients are listed.
NIOSH-Ca(National Institute for Occupational Safety and Health)
None of the ingredients are listed.
OSHA-Ca(Occupational Safety & Health Administration)
None of the ingredients are 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

- H302: Harmful if swallowed
- H314: Causes severe skin burns and eye damage
- H317: May cause an allergic skin reaction
- H373a: May cause damage to organs through prolonged or repeated exposure if swallowed
- H412: Harmful to aquatic life with lasting effects
- P260: Do not breathe dust/fume/gas/mist/vapors/spray.
- P261: Avoid breathing dust/fume/gas/mist/vapors/spray
- P264: Wash hands thoroughly after handling
- P270: Do not eat, drink or smoke when using this product.
- P272: Contaminated work clothing should not be allowed out of the work place
- P273: Avoid release into the environment
- P280: Wear protective gloves/protective clothing/eye protection/face protection
- P301+P312: IF SWALLOWED: Call POISON CENTER or doctor/physician if you feel unwell
- P301+P330+P331: IF SWALLOWED: rinse mouth. Do NOT induce vomiting
- P302+P352: IF ON SKIN: Wash with soap and water
- P303+P361+P353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
- P304+P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
- 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 POISON CENTER or doctor/physician
- P330: Rinse mouth
- P333+P313: If skin irritation or rash occurs; Get medical attention/advice
- P363: Wash contaminated clothing before reuse
- P405: Store locked up
- P501: Disposal of contents/containers to be specified in accordance with regulations

Revision: 01/01/2020

Printing date: 09/21/2015

Trade name: 608 Chemical Resistant TuffPatch Kit Part B

(Cont. from page 11)

· Abbreviations and Acronyms

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

ACGIH: American Conference of Governmental Industrial Hygienists

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

WHMIS: Workplace Hazardous Materials Information System (Canada)

VOC: Volatile Organic Compounds (USA, EU)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

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