

Reviewed on 11/10/2014

Printing date 11/10/2014

1 Identification

- · Product identifier
- · Trade name: STAUF ULC-500 Part A
- $\cdot \frac{\text{Relevant identified uses of the substance or mixture and uses advised against}}{\text{No further relevant information available.}}$
- Application of the substance / the mixture Knife filler/ Surfacer
- · Details of the supplier of the safety data sheet

· Manufacturer:

STAUF Klebstoffwerk GmbH Oberhausener Strasse 1 57234 Wilnsdorf, Germany Phone 01149-273-930-1100 Fax 01149-273-930-1200

· Distributor:

STAUF USA, LLC. 11121 Hwy 70 Suite 102 Arlington, TN 38002, USA Phone 1-901-820-0007 Fax 1-901-820-0101

· Emergency telephone number: CHEMTREC 1-800-424-9300 (USA) 1-703-527-3887 (International)

2 Hazard(s) identification

· Classification of the substance or mixture

The product is not classified according to the Globally Harmonized System (GHS).

· Label elements

- · GHS label elements Void
- · Hazard pictograms Void
- · Signal word Void
- · Hazard statements Void
- · Classification system:
- · NFPA ratings (scale 0 4)

1 0 0Health = 0 Fire = 1 Reactivity = 0

· WHMIS-ratings (scale 0 - 4)



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

3 Composition/information on ingredients

- · Chemical characterization: Mixtures
- · Description: Mixture of the substances listed below with nonhazardous additions.

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50-100%

· Dangerous components:

7727-43-7 barium sulphate, natural

4 First-aid measures

- · Description of first aid measures
- · General information: No special measures required.
- After inhalation: Supply fresh air; consult doctor in case of complications.
- · After skin contact: Generally the product does not irritate the skin.
- · After eye contact:
- Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- After swallowing: If symptoms persist consult doctor.
- Most important symptoms and effects, both acute and delayed No further relevant information available.
- Indication of any immediate medical attention and special treatment needed No further relevant information available.

5 Fire-fighting measures

- · Extinguishing media
- · Suitable extinguishing agents:
- CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- Special hazards arising from the substance or mixture No further relevant information available.
- Advice for firefighters
- · Protective equipment: No special measures required.

6 Accidental release measures

- Personal precautions, protective equipment and emergency procedures Ensure adequate ventilation Wear protective clothing.
- Environmental precautions: Do not allow product to reach sewage system or any water course. Inform respective authorities in case of seepage into water course or sewage system. Do not allow to enter sewers/ surface or ground water.
- Methods and material for containment and cleaning up: Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
 Reference to other sections
- No dangerous substances are released.

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

- · Precautions for safe handling Avoid contact with the eyes.
- · Information about protection against explosions and fires: No special measures required.

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- · Conditions for safe storage, including any incompatibilities
- · Storage:
- Requirements to be met by storerooms and receptacles: No special requirements.
- · Information about storage in one common storage facility: Not required.
- Further information about storage conditions: None.
- · Specific end use(s) No further relevant information available.

8 Exposure controls/personal protection

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

· Components with limit values that require monitoring at the workplace:

7727-43-7 barium sulphate, natural	
PEL Long-term value: 15* 5** mg/m ³ *total dust **respirable fraction	

- REL Long-term value: 10* 5** mg/m³ *total dust **respirable fraction
- TLV Long-term value: 5* mg/m³ *inhalable fraction; E

· Additional information: The lists that were valid during the creation were used as basis.

- · Exposure controls
- · Personal protective equipment:
- General protective and hygienic measures: The usual precautionary measures for handling chemicals should be followed. Wash hands before breaks and at the end of work.
- · Breathing equipment: Not necessary if room is well-ventilated.
- Protection of hands: Not required.
- Material of gloves
- Butyl rubber, BR
- Nitrile rubber, NBR
- · Eye protection: Goggles recommended during refilling.
- · Body protection: Protective work clothing

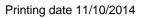
9 Physical and chemical properties

· Information on basic physical and chemical properties

· General Information

• Appearance:	
Form:	Fluid
Color:	Beige
• Odor:	Characteristic
Odour threshold:	Not determined.
· pH-value:	Not determined.
· Change in condition	
Boiling point/Boiling range:	301 °C (574 °F)
· Flash point:	127 °C (261 °F)
· Flammability (solid, gaseous):	Not applicable.

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Adhesives since 1828 -

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		(Contd. of page 3)
· Ignition temperature:	420 °C (788 °F)	
Decomposition temperature:	Not determined.	
· Auto igniting:	Product is not selfigniting.	
· Danger of explosion:	Product does not present an explosion hazard.	
• Explosion limits: Lower: Upper:	Not determined. Not determined.	
· Vapor pressure at 20 °C (68 °F):	3 hPa (2 mm Hg)	
 Density at 20 °C (68 °F): Relative density Vapour density Evaporation rate 	1.9 g/cm³ (15.856 lbs/gal) Not determined. Not determined. Not determined.	
• Solubility in / Miscibility with Water:	Not miscible or difficult to mix.	
· Partition coefficient (n-octanol/wate	er): Not determined.	
 Viscosity: Dynamic at 20 °C (68 °F): Kinematic: 	30000 mPas Not determined.	
 Solvent content: Organic solvents: VOC Content: Other information 	0.0 % 0.00 % No further relevant information available.	

10 Stability and reactivity

- · Reactivity
- · Chemical stability
- Thermal decomposition / conditions to be avoided:
- No decomposition if used according to specifications.
- · Possibility of hazardous reactions No dangerous reactions known.
- · Conditions to avoid No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- · Hazardous decomposition products: No dangerous decomposition products known.

11 Toxicological information

- · Information on toxicological effects
- · Acute toxicity:
- Primary irritant effect:
- on the skin: No irritant effect.
- · on the eye: No irritating effect.
- · Sensitization: No sensitizing effects known.
- · Additional toxicological information:

The product is not subject to classification according to internally approved calculation methods for preparations:

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(Contd. of page 4) When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.

- Carcinogenic categories
- · IARC (International Agency for Research on Cancer)

1318-02-1 Zeolith A3

· NTP (National Toxicology Program)

None of the ingredients is listed.

· OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients is listed.

12 Ecological information

- · Toxicity
- Aquatic toxicity: No further relevant information available.
- Persistence and degradability No further relevant information available.
- **<u>Bioaccumulative potential</u>** No further relevant information available.
- Mobility in soil No further relevant information available.
- · Additional ecological information:
- · General notes:

Water hazard class 1 (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.

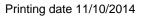
- <u>Results of PBT and vPvB assessment</u>
- · PBT: Not applicable.
- · vPvB: Not applicable.
- · Other adverse effects No further relevant information available.

13 Disposal considerations

Waste treatment methods

- · Recommendation: Smaller quantities can be disposed of with household waste.
- · Uncleaned packagings:
- Recommendation: Disposal must be made according to official regulations.

· UN-Number		
· DOT, ADR, ADN, IMDG, IATA	Void	
 UN proper shipping name 		
\cdot DOT, ADR, ADN, IMDG, IATA	Void	
 Transport hazard class(es) 		
· DOT, ADR, ADN, IMDG, IATA		
· Class	Void	
· Packing group		
· DOT, ADR, IMDG, IATA	Void	
· Environmental hazards:		
· Marine pollutant:	No	
		(Contd. on page



Trade name: STAUF ULC-500 Part A

- ADHESIVES SINCE 1828 -

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15 Regulatory information • Safety, health and environmental regulations/legislation specific for the substance or mixture • Sara • Section 355 (extremely hazardous substances): None of the ingredient is listed. • Section 313 (Specific toxic chemical listings): 7727-43-7 [barium sulphate, natural 8001-79-4 [Castor oil • Proposition 65 • 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. • Chemicals known to cause developmental toxicity: None of the ingredient is listed. • Chemicals known to cause developmental toxicity: None of the ingredient is listed. • Chemicals known to cause developmental toxicity: None of the ingredients is listed. • Limit 0, 1% None of the ingredients is listed. • Limit 1% None of the ingredients is listed. • Zancerogenity categories	 Special precautions for user Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code UN "Model Regulation": 	(Contd. of page 5)
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None of the ingredients is listed.		
	Chemical safety assessment: A Chemical Safety Assessment has not been	carried out

(Contd. on page 7)



Reviewed on 11/10/2014

Printing date 11/10/2014

Trade name: STAUF ULC-500 Part A

(Contd. of page 6)

USA

16 Other information

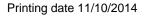
This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- · Department issuing SDS: Technical Department
- · Contact:

Dr. Frank Gahlmann +49-(0)2739-301165 gahlmann@stauf.de

- Wolfgang Stauf, Phone 901-820-0007, Email wolfgang.stauf@staufusa.com
- Date of preparation / last revision 11/10/2014 / 31
- Abbreviations and acronyms:

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail) ICAO: International Civil Aviation Organization



Adhesives since 1828 -

Reviewed on 11/10/2014

1 Identification

- · Product identifier
- · Trade name: STAUF ULC-500 Part B
- CAS Number:
- 9016-87-9
- Relevant identified uses of the substance or mixture and uses advised against No further relevant information available.
- · Application of the substance / the mixture Hardening agent/ Curing agent
- · Details of the supplier of the safety data sheet
- Manufacturer: STAUF Klebstoffwerk GmbH Oberhausener Strasse 1 57234 Wilnsdorf, Germany Phone 01149-273-930-1100 Fax 01149-273-930-1200
- **Distributor:** STAUF USA, LLC. 11121 Hwy 70 Suite 102 Arlington, TN 38002, USA Phone 1-901-820-0007 Fax 1-901-820-0101
- · Emergency telephone number: CHEMTREC 1-800-424-9300 (USA) 1-703-527-3887 (International)

2 Hazard(s) identification

· Classification of the substance or mixture



GHS08 Health hazard

Resp. Sens. 1 H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

GHS07

•	Classification	according to Directive 67/548/EEC or Directive 1999/45/EC
	STOT SE 3	H335 May cause respiratory irritation.
	Skin Sens. 1	H317 May cause an allergic skin reaction.
	Eye Irrit. 2	H319 Causes serious eye irritation.
	Skin Irrit. 2	H315 Causes skin irritation.
	Acute Tox. 4	H332 Harmful if inhaled.

Harmful

Harmful by inhalation. Limited evidence of a carcinogenic effect. Harmful: danger of serious damage to health by prolonged exposure through inhalation.

X Irritant

Irritating to eyes, respiratory system and skin. May cause sensitization by inhalation and skin contact.

Carc. Cat. 3

· Information concerning particular hazards for human and environment: Not applicable.

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	(Contd. of page 1)
· Label elements	
 Labelling according to EU guidelines: The product has been classified and marked in accordance with directives on hazardous m 	naterials.
Code letter and hazard designation of product:	
Carc. Cat. 3 Xn Harmful	
 Risk phrases: Harmful by inhalation. Irritating to eyes, respiratory system and skin. Limited evidence of a carcinogenic effect. May cause sensitization by inhalation and skin contact. Harmful: danger of serious damage to health by prolonged exposure through inhalation. 	
 Safety phrases: Keep locked up and out of the reach of children. Do not breathe gas/fumes/vapour/spray. Avoid contact with skin. In case of contact with eyes, rinse immediately with plenty of water and seek medical advic Wear suitable protective clothing and gloves. In case of accident or if you feel unwell, seek medical advice immediately. This material and its container must be disposed of as hazardous waste. 	æ.
 Special labeling of certain preparations: Contains isocyanates. See information supplied by the manufacturer. Classification system: NFPA ratings (scale 0 - 4) 	
Health = 2 Fire = 1 Reactivity = 0	
· WHMIS-ratings (scale 0 - 4)	
HEALTH2FIRE1Fire = 1REACTIVITY 0Reactivity = 0	

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

3 Composition/information on ingredients

- · Chemical characterization: Substances
- CAS No. Description
 9016-87-9 diphenylmethanediisocyanate,isomeres and homologues
 Identification number(s) not available

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4 First-aid measures

· Description of first aid measures

· General information:

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

· After inhalation:

Supply fresh air and to be sure call for a doctor.

In case of unconsciousness place patient stably in side position for transportation.

- After skin contact: Immediately wash with water and soap and rinse thoroughly.
- · After eye contact:

Rinse opened eye for several minutes under running water. Then consult a doctor.

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

- After swallowing: Do not induce vomiting; immediately call for medical help.
- Most important symptoms and effects, both acute and delayed No further relevant information available.
- Indication of any immediate medical attention and special treatment needed No further relevant information available.

5 Fire-fighting measures

· Extinguishing media

• Suitable extinguishing agents: CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam. Use fire fighting measures that suit the environment.

- · Special hazards arising from the substance or mixture No further relevant information available.
- · Advice for firefighters
- · Protective equipment:

Mount respiratory protective device.

Wear self-contained respiatory protective device.

6 Accidental release measures

- Personal precautions, protective equipment and emergency procedures Wear protective equipment. Keep unprotected persons away. Ensure adequate ventilation Wear protective clothing.
- Environmental precautions: No special measures required.
- <u>Methods and material for containment and cleaning up:</u> Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust). Dispose contaminated material as waste according to item 13. Ensure adequate ventilation.
- <u>Reference to other sections</u> 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

• **Precautions for safe handling** Ensure good ventilation/exhaustion at the workplace.

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Prevent formation of aerosols.

Avoid contact with the eyes.

• Information about protection against explosions and fires: No special measures required.

· Conditions for safe storage, including any incompatibilities

- · Storage:
- · Requirements to be met by storerooms and receptacles: No special requirements.
- · Information about storage in one common storage facility: Not required.
- Further information about storage conditions:
- Protect from frost.

Store in dry conditions. Keep receptacle tightly sealed.

• Specific end use(s) No further relevant information available.

8 Exposure controls/personal protection

• Additional information about design of technical systems: No further data; see item 7.

- · Control parameters
- · Components with limit values that require monitoring at the workplace: Not required.
- · Additional information: The lists that were valid during the creation were used as basis.
- · 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.
- Breathing equipment:
- Not necessary if room is well-ventilated.

Use suitable respiratory protective device in case of insufficient ventilation.

- · Protection of hands: Not required.
- · Material of gloves
- Butyl rubber, BR

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.

Eye protection:



Tightly sealed goggles

· Body protection: Protective work clothing

9 Physical and chemical properties

- · Information on basic physical and chemical properties
- · General Information
- · Appearance:
 - Form:
 - Color:
- · Odor:
- · Odour threshold:

Fluid Brown Weak, characteristic Not determined.

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		(Contd. of page 4)
· pH-value:	Not determined.	
Change in condition Boiling point/Boiling range: Setting temperature / range:	Undetermined. 0 °C (32 °F)	
· Flash point:	201 °C (394 °F)	
· Flammability (solid, gaseous):	Not applicable.	
· Ignition temperature:	400 °C (752 °F)	
Decomposition temperature:	> 260 °C (> 500 °F)	
· Auto igniting:	Not determined.	
· Danger of explosion:	Product does not present an explosion hazard.	
• Explosion limits: Lower: Upper:	Not determined. Not determined.	
· Vapor pressure at 20 °C (68 °F):	11 hPa (8 mm Hg)	
 Density at 20 °C (68 °F): Relative density Vapour density Evaporation rate 	1.22 g/cm ³ (10.181 lbs/gal) Not determined. Not determined. Not determined.	
Solubility in / Miscibility with <i>Water:</i>	Not miscible or difficult to mix.	
· Partition coefficient (n-octanol/water):	Not determined.	
 Viscosity: Dynamic at 20 °C (68 °F): Kinematic: 	90 mPas Not determined.	
 Solvent content: Organic solvents: VOC Content: Other information 	0.0 % 0.00 % No further relevant information available.	
10 Stability and reactivity		

and reactivity Stability

- · Reactivity
- · Chemical stability
- Thermal decomposition / conditions to be avoided:
- No decomposition if used according to specifications.
- · Possibility of hazardous reactions Reacts with water. Exothermic reaction with amines and alcohols; reacts with water forming CO2; in closed containers, risk of
 - bursting owing to increase of pressure.
- · Conditions to avoid No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- · Hazardous decomposition products: No dangerous decomposition products known.

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alues that a	are relevant for classification:	
	nethanediisocyanate, isomeres and homologues	
_D50	> 2000 mg/kg (Ratte)	
_D50	> 9400 mg/kg (rab) (OECD- Prüfrichtlinie 402)	
_C50/48 h	490 mg/l (Ratte) (als Aerosol, Exposition)	
toxicolog	ical information:	
national A	gency for Research on Cancer)	
diphenylm	ethanediisocyanate, isomeres and homologues	
nal Toxico	logy Program)	
	D50 D50 C50/48 h ant effect: Irritant to Irritating e n: n possible n possible toxicolog ic categor national A diphenylm	LD50 > 2000 mg/kg (Ratte) LD50 > 9400 mg/kg (rab) (OECD- Prüfrichtlinie 402) LC50/48 h 490 mg/l (Ratte) (als Aerosol, Exposition) c50/48 h 490 mg/l (Ratte) (als Aerosol, Exposition) cant effect: Irritant to skin and mucous membranes. Irritating effect.

12 Ecological information

- · Toxicity
- · Aquatic toxicity:

9016-87-9 diphenylmethanediisocyanate, isomeres and homologues

- EC50 >1000 mg/l (Daphnia magna Wasserfloh) (OECD-Prüfrichtlinie 202)
- LC0 >1000 mg/l (Fisch) (96h)
- Persistence and degradability No further relevant information available.
- · Bioaccumulative potential No further relevant information available.
- · Mobility in soil No further relevant information available.
- · Additional ecological information:
- · General notes: Not known to be hazardous to water.
- Results of PBT and vPvB assessment
- · **PBT:** Not applicable.
- vPvB: Not applicable.
- · Other adverse effects No further relevant information available.

13 Disposal considerations

· Waste treatment methods

· Recommendation:

Contact waste processors for recycling information.

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Liquid product must not be disposed of together with household garbage. Do not allow product to reach sewage system. If product has aged or solidified conventional means of disposal are acceptable.

· Uncleaned packagings:

• Recommendation: Disposal must be made according to official regulations.

14 Transport information

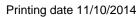
 <u>UN-Number</u> DOT, ADR, ADN, IMDG, IATA <u>UN proper shipping name</u> DOT, ADR, ADN, IMDG, IATA <u>Transport hazard class(es)</u> 	Void Void
• DOT, ADR, ADN, IMDG, IATA • Class • Packing group	Void
· DOT, ADR, IMDG, IATA	Void
 Environmental hazards: Marine pollutant: 	No
Special precautions for user	Not applicable.
 Transport in bulk according to Annex II or 	of
MARPOL73/78 and the IBC Code	Not applicable.
 UN "Model Regulation": 	-

15 Regulatory information

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

- Sara
- Section 355 (extremely hazardous substances):
- Substance is not listed.
- · Section 313 (Specific toxic chemical listings):
- Substance is listed.
- TSCA (Toxic Substances Control Act):
- Substance is listed.
- Proposition 65
- Chemicals known to cause cancer:
- Substance is not listed.
- Chemicals known to cause reproductive toxicity for females:
- Substance is not listed.
- Chemicals known to cause reproductive toxicity for males:
- Substance is not listed.
- · Chemicals known to cause developmental toxicity:
- Substance is not listed.
- Canadian Ingredient disclosure list
- *Limit 0,1%*
- Substance is not listed.

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· Limit 1%

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CBD

4

Trade name: STAUF ULC-500 Part B

Substance is not listed.

- Cancerogenity categories
- · EPA (Environmental Protection Agency)
- 9016-87-9 diphenylmethanediisocyanate, isomeres and homologues
- TLV (Threshold Limit Value established by ACGIH)
- Substance is not listed.
- · MAK (German Maximum Workplace Concentration)
- 9016-87-9 diphenylmethanediisocyanate, isomeres and homologues
- · NIOSH-Ca (National Institute for Occupational Safety and Health)
- Substance is not listed.

· Product related hazard informations:

- · Hazard symbols:
- The product has been classified and marked in accordance with directives on hazardous materials.
- · Safety phrases: Keep out of the reach of children.
- · National regulations:
- · Technical instructions (air):
 - Class Share in %
- 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.

- Department issuing SDS: Technical Department
- · Contact:
- Dr. Frank Gahlmann +49-(0)2739-301165 gahlmann@stauf.de Wolfgang Stauf, Phone 901-820-0007, Email wolfgang.stauf@staufusa.com • Date of preparation / last revision 11/10/2014 / 19
- Abbreviations and acronyms:
 RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
 ICAO: International Civil Aviation Organization
 Acute Tox. 4: Acute toxicity, Hazard Category 4
 Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2
 Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2
 Resp. Sens. 1: Sensitisation Respirat., Hazard Category 1
 Skin Sens. 1: Sensitisation Skin, Hazard Category 1
 STOT SE 3: Specific target organ toxicity Single exposure, Hazard Category 3

USA -