

## 1. Product and company identification

### Product identifier

Trade name: Toolfusion® 1A

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

General use: Epoxy resin.  
Reserved for industrial and professional use.



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

Company name: Airtech International, Inc.  
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### Emergency phone number

**CHEMTREC EMERGENCY PHONE:**  
**Within USA/Canada: 1-(800)424-9300**  
**International: +1 703-741-5970**

## 2. Hazards identification

### Emergency overview

Appearance: Form: liquid  
Color: black  
Odor: weak  
Classification: Skin Irritation - Category 2; Eye Irritation - Category 2A; Sensitization - skin - Category 1; Aquatic toxicity - chronic - Category 2;

Hazard symbols:



Signal word:

**Warning**

Hazard statements: Causes skin irritation.  
May cause an allergic skin reaction.  
Causes serious eye irritation.  
Toxic to aquatic life with long lasting effects.

Precautionary statements:

Avoid breathing vapors.  
Avoid release to the environment.  
Wear protective gloves/protective clothing/eye protection.  
IF ON SKIN: Wash with plenty of water/soap.  
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
If skin irritation or rash occurs: Get medical advice/attention.  
If eye irritation persists: Get medical advice/attention.

### Regulatory status

This material is considered hazardous by the U.S. OSHA Hazard Communication Standard (29 CFR 1910.1200) and SIMDUT in Canada.

### Hazards not otherwise classified

Thermal decomposition can lead to the escape of irritating gases and vapors. May cause respiratory irritation. May be harmful if swallowed. Special danger of slipping by leaking/spilling product.

Contains materials regulated as dust hazards, dispersed in a non-hazardous form. If dust is recreated, appropriate respiratory and/or explosion precautions must still be used.  
see section 11: Toxicological information

## 3. Composition / Information on ingredients

Chemical characterization: Epoxy resin based mixture, < 100%.

Additional information: Under HCS 2012, §1910.1200(i) the precise composition of the product is withheld as trade secret. A more complete disclosure can be provided to a health, or safety professional when necessary.

## 4. First aid measures

- In case of inhalation: Move victim to fresh air, put at rest and loosen restrictive clothing. In case of breathing stop use artificial aspiration immediately. In case of breathing difficulties administer oxygen. Seek medical attention.
- Following skin contact: Contaminated/fouled clothing and shoes must be removed immediately. After contact with skin, wash immediately with soap and plenty of water. Seek medical treatment in case of troubles.
- After eye contact: Immediately flush eyes with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Subsequently seek the immediate attention of an ophthalmologist.
- After swallowing: Rinse mouth with water. Immediately get medical attention. If person is clearly conscious, have them drink two glasses of water to dilute ingested material. Do not induce vomiting. Never give an unconscious person anything through the mouth.

### Most important symptoms/effects, acute and delayed

In case of inhalation:

Thermal decomposition can lead to the escape of irritating gases and vapors. May cause respiratory irritation.

In case of ingestion: May be harmful if swallowed.

After contact with skin: Sensitisation, irritation, redness, pain,

After eye contact: Irritation, redness, pain.

### Information to physician

Treat symptomatically.

## 5. Fire fighting measures

Flash point/flash point range:

> 347 °F

Auto-ignition temperature: no data available

Suitable extinguishing media:

Water fog, dry chemical, foam, carbon dioxide.

Extinguishing media which must not be used for safety reasons:

High power water jet.

### Specific hazards arising from the chemical

This material is combustible, but will not ignite readily. Emits toxic fumes under fire conditions.

In case of fire may be liberated: Aldehydes, acids, phenols, carbon monoxide and carbon dioxide. Formation of numerous unknown compounds is possible.

Protective equipment and precautions for firefighters:

Wear a self-contained breathing apparatus and chemical protective clothing.

Additional information:

Seal off endangered area. Heating causes rise in pressure with risk of bursting. Cool endangered containers with water spray and, if possible, remove from danger zone. Fight fire from a safe distance. Stay upwind/keep distance from source. Use a water fog to control vapors. Do not allow fire water to penetrate into surface or ground water.

## 6. Accidental release measures

|                            |   |
|----------------------------|---|
| Personal precautions:      | Avoid the formation of aerosol/vapors. Avoid inhalation and contact with skin and eyes. Respiratory protection in case of aerosol or vapor formation. Wear protective equipment. Keep unprotected people away. Ensure adequate ventilation, especially in confined areas. |
| Environmental precautions: | Do not allow to penetrate into soil, waterbodies or drains. If necessary notify appropriate authorities.  |
| Methods for clean-up:      | Dam spills. Soak up with absorbent materials such as sand, siliceus earth, acid- or universal binder. Store in special closed containers and dispose of according to ordinance. Dispose of waste according to applicable legislation.                                     |
| Additional information:    | Special danger of slipping by leaking/spilling product.   |

## 7. Handling and storage

### Handling

Advices on safe handling: Provide adequate ventilation, and local exhaust as needed. Avoid contact with skin, eyes, and clothing. Do not breathe vapor or spray. Use suitable personal protective equipment to protect skin and eyes. Take care when re-opening already used containers. Handle and open container with care. When using do not eat, drink or smoke. Wash hands before breaks and after work.

Precautions against fire and explosion:  
Take standard precautions to prevent fire.

### Storage

Requirements for storerooms and containers:  
Keep container tightly closed in a cool, well-ventilated place. Keep away from sources of ignition. Store in a dry place. Do not drop, drag or bang the container.

Hints on joint storage: Do not store together with strong bases, oxidizing agents, strong acids or amines. Keep away from food and drinks.

## 8. Exposure controls / personal protection

### Exposure guidelines

Additional information: Contains materials regulated as dust hazards, dispersed in a non-hazardous form. If dust is recreated, appropriate respiratory and/or explosion precautions must still be used.

### Engineering controls

Provide adequate ventilation.  
See also information in chapter 7, section storage.

### Personal protection equipment (PPE)

Eye/face protection: Tightly sealed goggles according to OSHA Standard - 29 CFR: 1910.133 or ANSI Z87.1-2010

Skin protection: Wear suitable protective clothing.

Protective gloves.

Glove material: Nitrile rubber or neoprene.

Layer thickness (recommended): >0.5 mm.

Breakthrough time: not tested.

Observe glove manufacturer's instructions concerning penetrability and breakthrough time.

Respiratory protection: When vapors form, use respiratory protection.

Recommended: Use filter type A (= against vapors of organic substances) according to OSHA Standard - 29 CFR: 1910.134 or ANSI Z88.2.

The filter class must be suitable for the maximum contaminant concentration (gas/vapor/aerosol/particulates) that may arise when handling the product.

General hygiene considerations:

Avoid contact with skin, eyes, and clothing. Take off contaminated clothing and wash it before reuse. Do not breathe vapor or spray. Have eye wash bottle or eye rinse ready at work place. When using do not eat, drink or smoke. Wash hands before breaks and after work.

## 9. Physical and chemical properties

### Information on basic physical and chemical properties

|  |  |
|--|--|
| Appearance:                              | Form: liquid<br>Color: black                               |
| Odor:                                    | weak   |
| Odor threshold:                          | no data available  |
| pH value:                                | no data available  |
| Melting point/freezing point:            | no data available  |
| Initial boiling point and boiling range: | no data available  |
| Flash point/flash point range:           | > 347 °F   |
| Evaporation rate:                        | no data available  |
| Flammability:                            | This material is combustible, but will not ignite readily. |
| Explosion limits:                        | no data available  |
| Vapor pressure:                          | no data available  |
| Vapor density:                           | no data available  |
| Density:                                 | no data available  |
| Solubility:                              | no data available  |
| Partition coefficient: n-octanol/water:  | no data available  |
| Auto-ignition temperature:               | no data available  |
| Thermal decomposition:                   | no data available  |
| Additional information:                  | no data available  |

## 10. Stability and reactivity

Reactivity: refer to 10.3

Chemical stability: Stable under recommended storage conditions.

Possibility of hazardous reactions

Exothermic reactions with incompatible materials.

Conditions to avoid: Keep away from heat. Avoid open flames. Avoid the formation of aerosol/vapors.

Incompatible materials: Strong oxidizing agents, strong Lewis acids or mineral acids and strong bases (organic and inorganic).

Hazardous decomposition products:  
In case of fire may be liberated: aldehyde, acids, phenols, silicon dioxide, carbon monoxide and carbon dioxide.  
Formation of numerous unknown compounds is possible.

Thermal decomposition: no data available

## 11. Toxicological information

### Toxicological tests

Toxicological effects: Acute toxicity (oral): Lack of data.  
Acute toxicity (dermal): Lack of data.  
Acute toxicity (inhalative): Lack of data.  
Skin corrosion/irritation: Skin Irritation - Category 2 = Causes skin irritation.  
Eye damage/irritation: Eye Irritation - Category 2A = Causes serious eye irritation.  
Sensitisation to the respiratory tract: Lack of data.  
Skin sensitisation: Sensitization - skin - Category 1 = May cause an allergic skin reaction.  
Germ cell mutagenicity/Genotoxicity: Lack of data.  
Carcinogenicity: Lack of data.  
Reproductive toxicity: Lack of data.  
Effects on or via lactation: Lack of data.  
Specific target organ toxicity (single exposure): Lack of data.  
Specific target organ toxicity (repeated exposure): Lack of data.  
Aspiration hazard: Lack of data.

Other information: Pre-existing skin and respiratory conditions including dermatitis, asthma and chronic lung disease might be aggravated by exposure.  
IARC rating:  
Contains materials assigned to Group 3 and Group 2B.  
Under HCS 2012, §1910.1200(i) the precise composition of the product is withheld as trade secret. A more complete disclosure can be provided to a health, or safety professional when necessary.

### Symptoms

In case of inhalation:  
Thermal decomposition can lead to the escape of irritating gases and vapors. May cause respiratory irritation.  
In case of ingestion: May be harmful if swallowed.  
After contact with skin: Sensitisation, irritation, redness, pain,  
After eye contact: Irritation, redness, pain.

## 12. Ecological information

### Ecotoxicity

Aquatic toxicity: Toxic to aquatic life with long lasting effects.

### Mobility in soil

no data available

### Persistence and degradability

Further details: no data available

### Additional ecological information

General information: Do not allow to penetrate into soil, waterbodies or drains.

## 13. Disposal considerations

### Product

Recommendation: Incinerate according to applicable local, state and federal regulations.

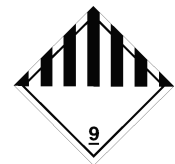
### Contaminated packaging

Recommendation: Dispose of waste according to applicable legislation. Handle contaminated packages in the same way as the substance itself. Non-contaminated packages may be recycled. Do not remove label until container is thoroughly cleaned.

## 14. Transport information

### USA: Department of Transportation (DOT)

Identification numbers: UN3082  
Proper shipping name: UN 3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Bisphenol epoxy resins)  
DOT hazard class or division: 9  
PG: III  
Label codes: 9  
Symbols: G  
Special provisions: 8, 146, 173, 335, IB3, T4, TP1, TP29  
Packaging - Exceptions: 155  
Packaging - Non-bulk: 203  
Packaging - Bulk: 241  
Quantity limitations - Passenger aircraft / rail: No limit  
Quantity limitations - Cargo only: No limit  
Vessel stowage - Location: A



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### Sea transport (IMDG)

UN number: 3082  
Proper shipping name: UN 3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Bisphenol epoxy resins)  
IMDG: Class 9, Subrisk -  
Packing Group: III  
EmS: F-A, S-F  
Special provisions: 274, 335, 969  
Limited quantities: 5 L  
EQ: E1  
Contaminated packaging - Instructions: P001, LP01  
Contaminated packaging - Provisions: PP1  
IBC - Instructions: IBC03  
IBC - Provisions: -  
Tank instructions - IMO: -  
Tank instructions - UN: T4  
Tank instructions - Provisions: TP2, TP29  
Stowage and handling: Category A.  
Properties and observations: -  
Marine pollutant: Yes

### Air transport (IATA)

UN/ID number: 3082  
Proper shipping name: UN 3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Bisphenol epoxy resins)  
ICAO/IATA: Class 9  
PG: III  
Hazard: Miscellaneous  
EQ: E1  
Passenger Ltd.Qty.: Pack.Instr. Y964 - Max. Net Qty/Pkg. 30 kg G  
Passenger: Pack.Instr. 964 - Max. Net Qty/Pkg. 450 L  
Cargo: Pack.Instr. 964 - Max. Net Qty/Pkg. 450 L  
Special Provisioning: A97 A158 A197  
ERG: 9L

## 15. Regulatory information

### U.S. Federal Regulations

All ingredients of this product are listed on the TSCA inventory.

### National regulations - EC member states

#### Labeling (67/548/EEC or 1999/45/EC)

Code letter and hazard symbol:

Xi irritant  
N dangerous for the environment

### National regulations - Great Britain

Hazchem-Code: •3Z

## 16. Other information

Text for labeling: Safety data sheet available on request.



# SAFETY DATA SHEET

in accordance with 29 CFR 1910.1200 and ANSI standard Z400.1-2010

## Toolfusion® 1A

Material number 1068

Revision date: 4/27/2015

Version: 10

Language: en-US

Date of first version: 10/15/2008

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Hazard rating systems:



NFPA Hazard Rating:

Health: 2 (Moderate)

Fire: 1 (Slight)

Reactivity: 0 (Minimal)

HMIS Version III Rating:

Health: 2 (Moderate)

Flammability: 1 (Slight)

Physical Hazard: 0 (Minimal)

Personal Protection: X = Consult your supervisor

|                 |   |
|-----------------|---|
| HEALTH          | 2 |
| FLAMMABILITY    | 1 |
| PHYSICAL HAZARD | 0 |
|                 | X |

Reason of change: Changes in section 1: General revision

### Department issuing data sheet

Contact person: see section 1: Dept. responsible for information

The information in this data sheet has been established to our best knowledge and was up-to-date at time of revision. It does not represent a guarantee for the properties of the product described in terms of the legal warranty regulations.

## 1. Product and company identification

### Product identifier

Trade name: Toolfusion® 1B

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

General use: Curing agent.  
Reserved for industrial and professional use.

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

Company name: Airtech International, Inc.  
Street/POB-No.: 5700 Skylab Road  
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### Emergency phone number

**CHEMTREC EMERGENCY PHONE:**  
**Within USA/Canada: 1-(800)424-9300**  
**International: +1 703-741-5970**

## 2. Hazards identification

### Emergency overview

Appearance: Form: liquid  
Color: amber  
Odor: amine odor  
Classification: Acute Toxicity - oral - Category 4; Acute Toxicity - dermal - Category 4;  
Skin Corrosion - Category 1A; Sensitization - skin - Category 1;  
Specific Target Organ Toxicity (Repeated Exposure) - Category 2;  
Aquatic toxicity - chronic - Category 3;

Hazard symbols:



Signal word:

### **Danger**

Hazard statements: Harmful if swallowed.  
Harmful in contact with skin.  
Causes severe skin burns and eye damage.  
May cause an allergic skin reaction.  
May cause damage to organs through prolonged or repeated exposure.  
Harmful to aquatic life with long lasting effects.

Precautionary statements:

Do not breathe vapors.  
Avoid release to the environment.  
Wear protective gloves/protective clothing/eye protection/face protection.  
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.  
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
Immediately call a POISON CENTER/doctor.  
Store locked up.

### Regulatory status

This material is considered hazardous by the U.S. OSHA Hazard Communication Standard (29 CFR 1910.1200) and SIMDUT in Canada.

### Hazards not otherwise classified

Special danger of slipping by leaking/spilling product.  
see section 11: Toxicological information

## 3. Composition / Information on ingredients

Chemical characterization: Modified amine mixture, < 100%

Additional information: Under HCS 2012, §1910.1200(i) the precise composition of the product is withheld as trade secret. A more complete disclosure can be provided to a health, or safety professional when necessary.

## 4. First aid measures

General information: First aider: Pay attention to self-protection!

- In case of inhalation: Move victim to fresh air, put at rest and loosen restrictive clothing. In case of breathing stop use artificial aspiration immediately. In case of breathing difficulties administer oxygen. Seek medical attention.
- Following skin contact: After contact with skin, wash immediately with soap and plenty of water. Change contaminated clothing. Immediately get medical attention.
- After eye contact: Immediately flush eyes with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Subsequently seek the immediate attention of an ophthalmologist.
- After swallowing: Immediately get medical attention. Never give anything by mouth to an unconscious person. Rinse mouth immediately and drink plenty of water. Do not induce vomiting without medical assistance.

### Most important symptoms/effects, acute and delayed

In case of inhalation:

Harmful if inhaled. The following symptoms may occur: Irritation, sore throat, headache, fatigue, dizziness, cough, nausea, vomiting.

In case of ingestion:

Harmful if swallowed. Burns in the mouth, pharynx, oesophagus, and gastrointestinal tract. Other symptoms: Danger of stomach perforation. Abdominal pain, nausea, sore throat, vomiting, thirst and coma.

After contact with skin: Harmful in contact with skin.

Burns, causes poorly healing wounds.

After eye contact: Redness, pain, Danger of loss of sight.

### Information to physician

Treat symptomatically.

## 5. Fire fighting measures

Flash point/flash point range:

> 199.4 °F

Auto-ignition temperature: no data available

Suitable extinguishing media:

Water fog, dry chemical, foam, carbon dioxide.

Extinguishing media which must not be used for safety reasons:

High power water jet.

### Specific hazards arising from the chemical

This material is combustible, but will not ignite readily. Harmful and/or toxic vapors may be produced in the event of thermal decomposition.

In case of fire may be liberated: aldehydes, acids, nitrogen oxides (NO<sub>x</sub>), phenols, carbon monoxide and carbon dioxide. Formation of numerous unknown compounds is possible.

Protective equipment and precautions for firefighters:

Wear a self-contained breathing apparatus and chemical protective clothing.

Additional information:

Seal off endangered area. Heating causes rise in pressure with risk of bursting. Cool endangered containers with water spray and, if possible, remove from danger zone. Fight fire from a safe distance. Stay upwind/keep distance from source. Use a water fog to control vapors. Do not allow fire water to penetrate into surface or ground water.

## 6. Accidental release measures

|                            |   |
|----------------------------|---|
| Personal precautions:      | Avoid the formation of aerosol/vapors. Avoid inhalation and contact with skin and eyes. Respiratory protection in case of aerosol or vapor formation. Wear protective equipment. Keep unprotected people away. Ensure adequate ventilation, especially in confined areas. |
| Environmental precautions: | Do not allow to enter into ground-water, surface water or drains. If necessary notify appropriate authorities.  |
| Methods for clean-up:      | Dam spills. Soak up with absorbent materials such as sand, siliceus earth, acid- or universal binder. Store in special closed containers and dispose of according to ordinance. Dispose of waste according to applicable legislation.                                     |
| Additional information:    | Special danger of slipping by leaking/spilling product.   |

## 7. Handling and storage

### Handling

|                           |   |
|---------------------------|---|
| Advices on safe handling: | Obtain special instructions before use. Provide adequate ventilation, and local exhaust as needed. Execute works under fume hood.<br>Avoid contact with skin, eyes, and clothing. Avoid the formation of aerosol. Do not breathe vapor/aerosol/fog. Do not ingest.<br>Take care when re-opening already used containers. Handle and open container with care. Wear protective equipment. When using do not eat, drink or smoke. |
|---------------------------|---|

Precautions against fire and explosion:

Take standard precautions to prevent fire.

### Storage

Requirements for storerooms and containers:

Keep container tightly closed in a cool, well-ventilated place. Keep away from sources of ignition. Store in a dry place. Do not drop, drag or bang the container.

Hints on joint storage:

Do not store together with strong oxidizing agents, strong Lewis acids, mineral acids or strong bases. strong oxidizing agents Keep away from food and drinks.

## 8. Exposure controls / personal protection

### Engineering controls

Provide adequate ventilation, and local exhaust as needed.

See also information in chapter 7, section storage.

### Personal protection equipment (PPE)

|                     |   |
|---------------------|---|
| Eye/face protection | Tightly sealed goggles according to OSHA Standard - 29 CFR: 1910.133 or ANSI Z87.1-2010.  |
| Skin protection     | Wear suitable protective clothing.<br>Protective gloves according to OSHA Standard - 29 CFR: 1910.138.<br>Glove material: Nitrile rubber or neoprene.<br>Layer thickness (recommended): >0.5 mm.<br>Breakthrough time: not tested.<br>Observe glove manufacturer's instructions concerning penetrability and breakthrough time. |

Respiratory protection: When vapors form, use respiratory protection.  
Recommended: Use filter type A (= against vapors of organic substances) according to OSHA Standard - 29 CFR: 1910.134 or ANSI Z88.2.  
The filter class must be suitable for the maximum contaminant concentration (gas/vapor/aerosol/particulates) that may arise when handling the product.

General hygiene considerations:

Avoid contact with skin, eyes, and clothing. Take off contaminated clothing and wash it before reuse. Do not breathe vapor or spray. Work place should be equipped with a shower and an eye rinsing apparatus. When using do not eat, drink or smoke. Wash hands before breaks and after work.

## 9. Physical and chemical properties

### Information on basic physical and chemical properties

Appearance: Form: liquid  
Color: amber

Odor: amine odor

Odor threshold: no data available

pH value: alkaline

Melting point/freezing point: no data available

Initial boiling point and boiling range: no data available

Flash point/flash point range: > 199.4 °F

Evaporation rate: no data available

Flammability: This material is combustible, but will not ignite readily.

Explosion limits: no data available

Vapor pressure: no data available

Density: 0.82 g/mL

Solubility: no data available

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

Auto-ignition temperature: no data available

Thermal decomposition: no data available

Additional information: no data available

## 10. Stability and reactivity

Reactivity: May be corrosive to metals.

Chemical stability: Stable under recommended storage conditions.

Possibility of hazardous reactions  
Exothermic reactions with incompatible materials.

Conditions to avoid: Protect from excessive heat. Avoid open flames. Avoid the formation of aerosol/vapors.

Incompatible materials: Nitrous acid, Sodium hypochlorite, peroxides, strong oxidizing agents, strong Lewis acids or mineral acids and strong bases (organic and inorganic).

Hazardous decomposition products:

In case of fire may be liberated: aldehydes, acids, nitrogen oxides (NO<sub>x</sub>), phenols, carbon monoxide and carbon dioxide. Formation of numerous unknown compounds is possible.

Thermal decomposition: no data available

## 11. Toxicological information

### Toxicological tests

Toxicological effects: Acute toxicity (oral): Acute Toxicity - oral - Category 4 = Harmful if swallowed.  
The product has not been tested. The statement is derived from the properties of the single components.  
ATEmix (calculated): 300<ATE<2000.  
Acute toxicity (dermal): Acute Toxicity - dermal - Category 4 = Harmful in contact with skin.  
The product has not been tested. The statement is derived from the properties of the single components.  
ATEmix (calculated): 1000<ATE<2000.  
Acute toxicity (inhalative): Lack of data.  
Skin corrosion/irritation, eye damage/irritation: Skin Corrosion - Category 1A = Causes severe skin burns and eye damage.  
Sensitisation to the respiratory tract: Lack of data.  
Skin sensitisation: Sensitization - skin - Category 1 = May cause an allergic skin reaction.  
The product has not been tested. The statement is derived from the properties of the single components.  
Germ cell mutagenicity/Genotoxicity: Lack of data.  
Carcinogenicity: Lack of data.  
Reproductive toxicity: Lack of data.  
Effects on or via lactation: Lack of data.  
Specific target organ toxicity (single exposure): Lack of data.  
Specific target organ toxicity (repeated exposure): Specific Target Organ Toxicity (Repeated Exposure) - Category 2 = May cause damage to organs through prolonged or repeated exposure.  
The product has not been tested. The statement is derived from the properties of the single components.  
Aspiration hazard: Lack of data.

Other information: Amines (vapors): May cause damage to liver and kidneys through prolonged or repeated exposure. Pre-existing skin and respiratory conditions including dermatitis, asthma and chronic lung disease might be aggravated by exposure.

## Symptoms

In case of inhalation:

Harmful if inhaled. The following symptoms may occur: Irritation, sore throat, headache, fatigue, dizziness, cough, nausea, vomiting.

In case of ingestion:

Harmful if swallowed. Burns in the mouth, pharynx, oesophagus, and gastrointestinal tract.

Other symptoms: Danger of stomach perforation. Abdominal pain, nausea, sore throat, vomiting, thirst and coma.

After contact with skin: Harmful in contact with skin.

Burns, causes poorly healing wounds.

After eye contact: Redness, pain, Danger of loss of sight.

## 12. Ecological information

### Ecotoxicity

Aquatic toxicity: Toxic to aquatic life with long lasting effects.

### Mobility in soil

no data available

### Persistence and degradability

Further details: no data available

### Additional ecological information

General information: Do not allow to enter into ground-water, surface water or drains.

## 13. Disposal considerations

### Product

Recommendation: Incinerate as hazardous waste according to applicable local, state, and federal regulations.

### Contaminated packaging

Recommendation: Dispose of waste according to applicable legislation. Handle contaminated packages in the same way as the substance itself. Non-contaminated packages may be recycled. Do not remove label until container is thoroughly cleaned.



## 14. Transport information

### USA: Department of Transportation (DOT)

Identification numbers: UN2735  
Proper shipping name: UN 2735, AMINES, LIQUID, CORROSIVE, N.O.S.  
(Modified amine mixture)  
DOT hazard class or division: 8  
PG: II  
Label codes: 8  
Symbols: G  
Special provisions: B2, IB2, T11, TP1, TP27  
Packaging - Exceptions: 154  
Packaging - Non-bulk: 202  
Packaging - Bulk: 242  
Quantity limitations - Passenger aircraft / rail: 1 L  
Quantity limitations - Cargo only: 30 L  
Vessel stowage - Location: A  
Vessel stowage - Other: 52



### Sea transport (IMDG)

UN number: 2735  
Proper shipping name: UN 2735, AMINES, LIQUID, CORROSIVE, N.O.S. ()  
IMDG: Class 8, Subrisk -  
Packing Group: II  
EmS: F-A, S-B  
Special provisions: 274  
Limited quantities: 1 L  
EQ: E2  
Contaminated packaging - Instructions: P001  
Contaminated packaging - Provisions: -  
IBC - Instructions: IBC02  
IBC - Provisions: -  
Tank instructions - IMO: -  
Tank instructions - UN: T11  
Tank instructions - Provisions: TP1, TP27  
Stowage and handling: Category A.  
Segregation: SG35  
Properties and observations: Colourless to yellowish liquids or solutions with a pungent odour. Miscible with or soluble in water. When involved in a fire, evolve toxic gases. Corrosive to most metals, especially to copper and its alloys. React violently with acids. Cause burns to skin, eyes and mucous membranes.  
Marine pollutant: No  
Segregation group: none

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**Air transport (IATA)**

UN/ID number: 2735  
Proper shipping name: UN 2735, AMINES, LIQUID, CORROSIVE, N.O.S. ()  
ICAO/IATA: Class 8  
PG: II  
Hazard: Corrosive  
EQ: E2  
Passenger Ltd.Qty.: Pack.Instr. Y840 - Max. Net Qty/Pkg. 0.5 L  
Passenger: Pack.Instr. 851 - Max. Net Qty/Pkg. 1 L  
Cargo: Pack.Instr. 855 - Max. Net Qty/Pkg. 30 L  
Special Provisioning: A3 A803  
ERG: 8L

**15. Regulatory information****U.S. Federal Regulations**

All ingredients of this product are listed on the TSCA inventory.

**National regulations - EC member states****Labeling (67/548/EEC or 1999/45/EC)**

Code letter and hazard symbol:

C corrosive

**National regulations - Great Britain**

Hazchem-Code: 2X

**16. Other information**

Text for labeling: Safety data sheet available on request.

Hazard rating systems: NFPA Hazard Rating:  
Health: 3 (Serious)  
Fire: 1 (Slight)  
Reactivity: 0 (Minimal)



HMIS Version III Rating:  
Health: 3 (Serious) - Chronic effects  
Flammability: 1 (Slight)  
Physical Hazard: 0 (Minimal)  
Personal Protection: X = Consult your supervisor

|                 |   |   |
|-----------------|---|---|
| HEALTH          | * | 3 |
| FLAMMABILITY    |   | 1 |
| PHYSICAL HAZARD |   | 0 |
| X               |   |   |

Reason of change: Changes in section 1: General revision

**Department issuing data sheet**

Contact person: see section 1: Dept. responsible for information

The information in this data sheet has been established to our best knowledge and was up-to-date at time of revision. It does not represent a guarantee for the properties of the product described in terms of the legal warranty regulations.