



SECTION 1: Identification

1.1. Identification

Product form : Mixture
Trade name : ALBERDINGK® U 9270

1.2. Recommended use and restrictions on use

Use of the substance/mixture : binding agent

1.3. Supplier

Manufacturer

ALBERDINGK BOLEY INC
6008 West Gate City Boulevard
Greensboro, NC 27407 - USA
T +1-866-220-4750 - F 336-454-5007
Info@Alberdingkusa.com - www.alberdingkusa.com

1.4. Emergency telephone number

Emergency number : Emergency Contact (24-Hour Number): Chemtrec 1-800-424-9300 or 1-703-527-3887

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS-US classification

Skin corrosion/irritation Category 2 Causes skin irritation
Serious eye damage/eye irritation Category 2A Causes serious eye irritation

2.2. GHS Label elements, including precautionary statements

GHS-US labeling

Hazard pictograms (GHS-US) :



Signal word (GHS-US) : Warning

Hazard statements (GHS-US) : Causes skin irritation
Causes serious eye irritation

Precautionary statements (GHS-US) : Wash hands, forearms and face thoroughly after handling.
Wear protective gloves/protective clothing/eye protection/face protection.
If on skin: Wash with plenty of water
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
Specific treatment (see supplemental first aid instruction on this label)
If skin irritation occurs: Get medical advice/attention.
If eye irritation persists: Get medical advice/attention.
Take off contaminated clothing and wash it before reuse.

2.3. Other hazards which do not result in classification

Other hazards not contributing to the classification : Not classified as PBT or vPvB.

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

ALBERDINGK® U 9270

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

| Name | Product identifier | % | GHS-US classification |
|---------------|--------------------|-----------|--|
| triethylamine | (CAS-No.) 121-44-8 | 0.7 – 1.2 | Flam. Liq. 2, H225 Acute Tox. 4 (Oral), H302 Acute Tox. 3 (Dermal), H311 Acute Tox. 3 (Inhalation), H331 Acute Tox. 4 (Inhalation:dust,mist), H332 Skin Corr. 1A, H314 STOT SE 3, H335 |

Full text of hazard classes and H-statements : see section 16

SECTION 4: First-aid measures

4.1. Description of first aid measures

| | |
|---------------------------------------|--|
| First-aid measures general | : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible). |
| First-aid measures after inhalation | : Allow victim to breathe fresh air. Allow the victim to rest. |
| First-aid measures after skin contact | : Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation occurs: Get medical advice/attention. Specific treatment (see supplemental first aid instruction on this label). |
| First-aid measures after eye contact | : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. |
| First-aid measures after ingestion | : Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention. |

4.2. Most important symptoms and effects (acute and delayed)

| | |
|---|---|
| Potential Adverse human health effects and symptoms | : Based on available data, the classification criteria are not met. |
| Symptoms/effects after skin contact | : Causes skin irritation. |
| Symptoms/effects after eye contact | : Causes serious eye irritation. |

4.3. Immediate medical attention and special treatment, if necessary

No additional information available

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

| | |
|--------------------------------|--|
| Suitable extinguishing media | : Foam. Dry powder. Carbon dioxide. Water spray. Sand. |
| Unsuitable extinguishing media | : Do not use a heavy water stream. |

5.2. Specific hazards arising from the chemical

| | |
|------------|--|
| Reactivity | : Not classified as dangerous substance / mixture. |
|------------|--|

5.3. Special protective equipment and precautions for fire-fighters

| | |
|--------------------------------|---|
| Firefighting instructions | : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment. |
| Protection during firefighting | : Do not enter fire area without proper protective equipment, including respiratory protection. |

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

| | |
|----------------------|-----------------------------------|
| Emergency procedures | : Evacuate unnecessary personnel. |
|----------------------|-----------------------------------|

6.1.2. For emergency responders

| | |
|----------------------|--|
| Protective equipment | : Equip cleanup crew with proper protection. |
| Emergency procedures | : Ventilate area. |

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

| | |
|-------------------------|--|
| Methods for cleaning up | : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials. |
|-------------------------|--|

6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

ALBERDINGK® U 9270

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Additional hazards when processed : Good ventilation of the workplace required.
- Precautions for safe handling : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapor.
- Handling temperature : 5 - 30 °C
- Hygiene measures : Wash hands, forearms and face thoroughly after handling.

7.2. Conditions for safe storage, including any incompatibilities

- Technical measures : No additional information available.
- Storage conditions : Protect against frost. Keep container closed when not in use.
- Incompatible products : Strong bases. Strong acids.
- Incompatible materials : Sources of ignition.
- Maximum storage period : 6 months
- Storage temperature : 10 - 30 °C

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

| triethylamine (121-44-8) | | |
|--------------------------|-------------------------------------|--|
| ACGIH | Local name | Triethylamine |
| ACGIH | ACGIH TWA (ppm) | 0.5 ppm |
| ACGIH | ACGIH STEL (ppm) | 1 ppm |
| ACGIH | Remark (ACGIH) | URT irr; visual impair; Skin; A4 (Not classifiable as a Human Carcinogen: Agents which cause concern that they could be carcinogenic for humans but which cannot be assessed conclusively because of a lack of data. In vitro or animal studies do not provide indications of carcinogenicity which are sufficient to classify the agent into one of the other categories) |
| OSHA | OSHA PEL (TWA) (mg/m ³) | 100 mg/m ³ |
| OSHA | OSHA PEL (TWA) (ppm) | 25 ppm |

8.2. Appropriate engineering controls

- Appropriate engineering controls : Not required for normal conditions of use. The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

8.3. Individual protection measures/Personal protective equipment

Personal protective equipment:

Avoid all unnecessary exposure.

Materials for protective clothing:

nitrile rubber

Hand protection:

Wear protective gloves.

Eye protection:

Chemical goggles or safety glasses

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

Wear appropriate mask

ALBERDINGK® U 9270

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Other information:

Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

| | |
|---|-----------------------------|
| Physical state | : Liquid |
| Appearance | : Liquid. |
| Color | : white |
| Odor | : characteristic |
| Odor threshold | : No data available |
| pH | : 8 - 9 |
| Melting point | : 0 °C |
| Freezing point | : 0 °C |
| Boiling point | : 100 °C |
| Flash point | : No data available |
| Relative evaporation rate (butyl acetate=1) | : No data available |
| Flammability (solid, gas) | : Non flammable. |
| Vapor pressure | : 2.3 kPa |
| Relative vapor density at 20 °C | : No data available |
| Relative density | : No data available |
| Specific gravity / density | : 1 - 1.1 g/cm ³ |
| Solubility | : Miscible with water. |
| Log Pow | : No data available |
| Auto-ignition temperature | : No data available |
| Decomposition temperature | : No data available |
| Viscosity, kinematic | : No data available |
| Viscosity, dynamic | : 30 - 500 mPa.s |
| Explosion limits | : No data available |
| Explosive properties | : No data available |
| Oxidizing properties | : No data available |

9.2. Other information

| | |
|----------------|-------------|
| Percent Solids | : 40 - 42 % |
|----------------|-------------|

SECTION 10: Stability and reactivity

10.1. Reactivity

Not classified as dangerous substance / mixture.

10.2. Chemical stability

Stable under normal conditions. Not established.

10.3. Possibility of hazardous reactions

Not established.

10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures.

10.5. Incompatible materials

Strong acids. Strong bases.

10.6. Hazardous decomposition products

fume. Carbon monoxide. Carbon dioxide.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

| | |
|----------------|------------------|
| Acute toxicity | : Not classified |
|----------------|------------------|

ALBERDINGK® U 9270

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

| triethylamine (121-44-8) | |
|---------------------------------|---|
| LD50 oral rat | 730 mg/kg body weight (Equivalent or similar to OECD 401, Rat, Male/female, Experimental value, Oral, 7 day(s)) |
| LD50 dermal rabbit | 580 mg/kg body weight (Equivalent or similar to OECD 402, 24 h, Rabbit, Male, Experimental value, Dermal, 14 day(s)) |
| LC50 inhalation rat (mg/l) | 7 mg/l (EPA OTS 798.1150: Acute inhalation toxicity, 4 h, Rat, Male/female, Experimental value, Converted value, Inhalation (vapours), 14 day(s)) |
| ATE US (oral) | 730 mg/kg body weight |
| ATE US (dermal) | 580 mg/kg body weight |
| ATE US (gases) | 700 ppmV/4h |
| ATE US (vapors) | 3 mg/l/4h |
| ATE US (dust, mist) | 0.5 mg/l/4h |

| | |
|---|---|
| Skin corrosion/irritation | : Causes skin irritation. pH: 8 - 9 |
| Serious eye damage/irritation | : Causes serious eye irritation. pH: 8 - 9 |
| Respiratory or skin sensitization | : Not classified |
| Germ cell mutagenicity | : Not classified |
| Carcinogenicity | : Not classified |
| Reproductive toxicity | : Not classified |
| Specific target organ toxicity – single exposure | : Not classified |
| Specific target organ toxicity – repeated exposure | : Not classified |
| Aspiration hazard | : Not classified |
| Potential Adverse human health effects and symptoms | : Based on available data, the classification criteria are not met. |
| Symptoms/effects after skin contact | : Causes skin irritation. |
| Symptoms/effects after eye contact | : Causes serious eye irritation. |

SECTION 12: Ecological information

12.1. Toxicity

| triethylamine (121-44-8) | |
|---------------------------------|---|
| LC50 fish 1 | 24 mg/l (OECD 203: Fish, Acute Toxicity Test, 96 h, Oryzias latipes, Fresh water, Experimental value) |
| ErC50 (algae) | 8 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Pseudokirchneriella subcapitata, Fresh water, Experimental value) |

12.2. Persistence and degradability

| ALBERDINGK® U 9270 | |
|-------------------------------|------------------|
| Persistence and degradability | Not established. |

| triethylamine (121-44-8) | |
|---------------------------------|---------------------------------------|
| Persistence and degradability | Readily biodegradable in water. |
| Biochemical oxygen demand (BOD) | < 0.001 g O ₂ /g substance |
| Chemical oxygen demand (COD) | 1.02 g O ₂ /g substance |

12.3. Bioaccumulative potential

| ALBERDINGK® U 9270 | |
|---------------------------|------------------|
| Bioaccumulative potential | Not established. |

| triethylamine (121-44-8) | |
|---------------------------------|---|
| BCF fish 1 | < 0.5 (OECD 305: Bioconcentration: Flow-Through Fish Test, 42 day(s), Cyprinus carpio, Fresh water, Experimental value) |
| Log Pow | 1.45 (Experimental value, Other) |
| Bioaccumulative potential | Low potential for bioaccumulation (BCF < 500). |

ALBERDINGK® U 9270

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

12.4. Mobility in soil

| triethylamine (121-44-8) | |
|--------------------------|---|
| Surface tension | 0.021 N/m (20 °C) |
| Log Koc | 2.56 (log Koc, Other, Calculated value) |
| Ecology - soil | Low potential for adsorption in soil. |

12.5. Other adverse effects

Other information : Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Disposal methods

Product/Packaging disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.
Ecology - waste materials : Avoid release to the environment.

SECTION 14: Transport information

Department of Transportation (DOT)

In accordance with DOT

Not applicable

Transportation of Dangerous Goods

Not applicable

Transport by sea

Not applicable

Air transport

Not applicable

SECTION 15: Regulatory information

15.1. US Federal regulations

ALBERDINGK® U 9270

Listed on the United States TSCA (Toxic Substances Control Act) inventory

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

Chemical(s) subject to the reporting requirements of Section 313 or Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986 and 40 CFR Part 372.

| | | |
|---------------|------------------|---------------|
| triethylamine | CAS-No. 121-44-8 | 0.72 - 1.008% |
|---------------|------------------|---------------|

triethylamine (121-44-8)

Listed on EPA Hazardous Air Pollutant (HAPS)

| | |
|-----------|---------|
| CERCLA RQ | 5000 lb |
|-----------|---------|

15.2. International regulations

CANADA

ALBERDINGK® U 9270

Listed on the Canadian NDSL (Non-Domestic Substances List)

triethylamine (121-44-8)

Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

No additional information available

National regulations

ALBERDINGK® U 9270

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

triethylamine (121-44-8)

Listed on EPA Hazardous Air Pollutant (HAPS)

15.3. US State regulations

triethylamine (121-44-8)

U.S. - New Jersey - Right to Know Hazardous Substance List

SECTION 16: Other information

Other information : None.

Full text of H-phrases:

| | |
|------|---|
| H225 | Highly flammable liquid and vapour |
| H302 | Harmful if swallowed |
| H311 | Toxic in contact with skin |
| H314 | Causes severe skin burns and eye damage |
| H331 | Toxic if inhaled |
| H332 | Harmful if inhaled |
| H335 | May cause respiratory irritation |

SDS US (GHS HazCom 2012)

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product