



**Distributor:** Mager Scientific  
1100 Baker Rd.  
P.O. Box 160  
Dexter MI 48130-0160

**Phone:** (734) 426-3885

**Distributor Product No.**

**CM-8560**

**Manufacturer:** Akasel ApS  
**Manufacturer Product No.:** Aka-Cure Slow, 8560

Dear Customer:

In order to comply with the Hazard Communication Law which went into effect November 25, 1985, and the Globally Harmonized System (GHS) regulation update introduced by the Occupational Safety and Health Administration (OSHA) in 2015, attached is the safety data sheet pertaining to our product noted above.

Additional sheets are available upon request. Please feel free to contact us if we can be of further assistance.

Sincerely,

Mager Scientific, Inc.  
Customer Service

# SAFETY DATA SHEET

## SECTION 1: Identification of the substance/mixture and of the company/undertaking

### 1.1. Product identifier

**Trade name**

Aka-Cure, Slow

**Product no.**

8560

**REACH registration number**

-

**Other means of identification**

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

**Relevant identified uses of the substance or mixture**

Slow curing agent for liquid epoxy

**Uses advised against**

-

The full text of any mentioned and identified use categories are given in section 16

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

**Company and address**

AKASEL ApS  
Svogerslev Hovedgade 48  
DK-4000 Roskilde  
tlf: +45 57 84 05 01  
fax: +45 57 84 06 01

**Contact person**

Morten J. Damgaard

**E-mail**

info@akasel.com

**SDS date**

03-07-2014

**SDS Version**

1.0

### 1.4. Emergency telephone number

Use your national or local emergency number  
See section 4 "First aid measures"

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

Acute Tox. 4, Skin Sens. 1, Skin Corr. 1B, Aquatic Chronic 3 // H412, H317, H314, H312

See full text of H/R-phrases in section 2.2.

**DPD/DSD Classification**

Corrosive. (C).

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.(R52/53).

May cause sensitisation by skin contact.(R43). Causes burns.(R34). Harmful in contact with skin.(R21).

### 2.2. Label elements

**Hazard pictogram(s)**



According to EC-Regulation 1907/2006 (REACH)

### Signal word

Danger!

### Hazard statement(s)

Harmful in contact with skin. (H312)  
 Causes severe skin burns and eye damage. (H314)  
 May cause an allergic skin reaction. (H317)  
 Harmful to aquatic life with long lasting effects. (H412)

### Identity of the substances primarily responsible for the major health hazards

Triethylenetetramine. Index-no.: 612-059-00-5

	General	-
	Prevention	Do not breathe dust/fume/gas/mist/vapours/spray. (P260) Wear protective gloves/protective clothing/eye protection/face protection. (P280)
Safety statement(s)	Response	IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. (P303+P361+P353) IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. (P305+P351+P338)
	Storage	Store locked up. (P405)
	Disposal	Dispose of contents/container to an approved waste disposal plant. (P501)

### 2.3. Other hazards

#### Additional labelling

-

#### Additional warnings

-

#### VOC

-

## SECTION 3: Composition/information on ingredients

### 3.1/3.2. Substances

NAME:	Triethylenetetramine
IDENTIFICATION NOS.:	CAS-no: 112-24-3 EC-no: 203-950-6 Index-no: 612-059-00-5
CONTENT:	95-100%
DSD CLASSIFICATION:	Xn; R21 C; R34 R43 R52-53
CLP CLASSIFICATION:	Acute tox. 4, Skin Corr. 1B, Skin Sens. 1, Aquatic Chronic 3 H312, H314, H317, H412

(\*) See full text of H/R-phrases in chapter 16. Occupational limits are listed in section 8, if these are available.

### Other informations

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

#### General information

In the case of accident: Contact a doctor or casualty department – take the label or this safety data sheet. Contact a doctor, if in doubt about the injured person's condition or if the symptoms continue. Never give an unconscious person water or similar.

#### Inhalation

Get the person into fresh air and stay with them.

#### Skin contact

Remove contaminated clothing and shoes at once. Skin that has come in contact with the material must be washed thoroughly with water and soap. Skin cleanser can be used. DO NOT use solvents or thinners.

#### Eye contact

Remove contact lenses. Flush eyes with plenty of water (20-30°C) for at least 15 minutes and continue until irritation stops. Make sure you flush under the upper and lower eyelids. Contact a doctor at once.

According to EC-Regulation 1907/2006 (REACH)

### Ingestion

Give the person plenty to drink and stay with the person. If the person feels unwell, contact a doctor immediately and take this safety data sheet or the label from the product with you. Do not induce vomiting unless recommended by the doctor. Hold head facing down so that no vomit runs back into the mouth and throat.

### Burns

Rinse with water until the pain stops and continue for 30 minutes.

#### 4.2. Most important symptoms and effects, both acute and delayed

Tissue damaging effects: This product contains substances which are corrosive. If vapour or aerosols are inhaled, it can result in damage to lungs, irritation and burns in the respiratory organs as well as coughing. Corrosive substances cause irreversible damage to eyes and acid burns to skin. Sensitivity effects: This product contains substances which can give an allergic reaction on contact with skin. The allergic reaction will typically set in 12-72 hours after exposure as the substance penetrates the skin and reacts with proteins in the outer skin. The body's immune system sees the chemically changed protein as a foreign body and will try to destroy it.

#### 4.3. Indication of any immediate medical attention and special treatment needed

No special

#### Information to medic

Bring this safety data sheet.

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

Recommended: alcohol-resistant foam, carbonic acid, powder, water mist. Water jets should not be used, since they can spread the fire.

### 5.2. Special hazards arising from the substance or mixture

If the product is exposed to high temperatures, as in the case of fire, dangerous catabolic substances are produced. These are: Nitrogen oxides. Carbon oxides. Fire will result in thick black smoke. Exposure to catabolic products can damage your health. Fire fighters should use proper protection gear. Closed containers, which are exposed to fire, should be cooled with water. Do not let fire-extinguishing water run into sewers and other water courses.

### 5.3. Advice for firefighters

Wear self-contained breathing apparatus and protective clothing to prevent contact.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

Avoid direct contact with spilled substances. Avoid inhalation of vapours from waste material.

### 6.2. Environmental precautions

Consider putting up waste collecting trays/basins to prevent leakage to the surroundings. Avoid discharge to lakes, streams, sewers, etc. In the event of a leakage to the surroundings, contact the local environmental authorities.

### 6.3. Methods and material for containment and cleaning up

Use sand, sawdust, earth, vermiculite, diatomaceous earth to contain and collect non-combustible absorbent materials and place in container for disposal, according to local regulations. Cleaning should be done as far as possible using normal cleaning agents. Solvents should be avoided.

### 6.4. Reference to other sections

See section on "Disposal considerations" with regard to the handling of waste. See section on 'Exposure controls/personal protection' for protective measures.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Smoking, consumption of food or liquid, and storage of tobacco, food or liquids are not allowed in the workrooms. Consider putting up waste collecting trays/basins to prevent leakage to the surroundings. See section on 'Exposure controls/personal protection' for information on personal protection. Avoid direct contact with the product.

According to EC-Regulation 1907/2006 (REACH)

### 7.2. Conditions for safe storage, including any incompatibilities

Always store in containers of the same material as the original. Containers that have been opened must be carefully resealed and kept upright to prevent leakage.

#### Storage temperature

NA No data available.

### 7.3. Specific end use(s)

This product should only be used for applications described in Section 1.2

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### OEL

No data available

#### DNEL / PNEC

No data available.

### 8.2. Exposure controls

No control is necessary if the product is used in a normal way.

#### General recommendations

Smoking, consumption of food or liquid, and storage of tobacco, food or liquid, are not allowed in the workroom.

#### Exposure scenarios

If there is an appendix to this safety data sheet, the indicated exposure scenarios must be complied.

#### Exposure limits

There are no maximum exposure limits for the substances contained in this product.

#### Appropriate technical measures

Take ordinary precautions when using the product. Avoid inhalation of gas or dust.

#### Hygiene measures

Whenever you take a break in using this product and when you have finished using it, all exposed areas of the body must be washed. Always wash hands, forearms and face.

#### Measures to avoid environmental exposure

Keep damming materials near the workplace. If possible collect spillage during work.

### Individual protection measures, such as personal protective equipment



#### Generally

Only CE-marked personal protection equipment should be used.

#### Respiratory Equipment

No specific requirements.

#### Skin protection

Special work clothing should be used. When working with this product for a long period of time, use a protective suit.

#### Hand protection

Use protective gloves. The concrete work situation is not known. Contact the suppliers of the gloves for help on the glove type. Please note that elastic gloves stretch when used. The thickness of the gloves, and therefore their penetration time, will be reduced. Moreover, the temperature of the glove in use is about 35°C, while the standard test, EN 374-3, is done at 23°C. The penetration time is therefore reduced by a factor of 3.

#### Eye protection

Use face shield. Use safety glasses with a side shield as an alternative.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Form	Colour	Odour	pH	Viscosity	Density (g/cm <sup>3</sup> )
Liquid	Transparent	Ammonia odor	>12	-	-

#### Phase changes

Melting point (°C)	Boiling point (°C)	Vapour pressure (mm Hg)
-	280	-

#### Data on fire and explosion hazards

Flashpoint (°C)	Ignition (°C)	Self ignition (°C)
118	-	-

Explosion limits (Vol %)	Oxidizing properties
1,6 - 3,6	-

#### Solubility

Solubility in water	n-octanol/water coefficient
Soluble	-

### 9.2. Other information

Solubility in fat	Additional information
-	N/A

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

No data available

### 10.2. Chemical stability

The product is stable under the conditions, noted in the section on "Handling and storage".

### 10.3. Possibility of hazardous reactions

No special

### 10.4. Conditions to avoid

Do not expose to heat (e.g. sunlight), because it can lead to excess pressure.

### 10.5. Incompatible materials

Strong acids, strong bases, strong oxidizing agents, and strong catabolic agents.

### 10.6. Hazardous decomposition products

The product is not degraded when used as specified in section 1.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

#### Acute toxicity

Substance	Species	Test	Route of exposure	Result
Triethylenetetramine	Rat	LD50	Oral	2500 mg/kg
Triethylenetetramine	Mouse	LD50	Intraperitoneal	468 mg/kg
Triethylenetetramine	Mouse	LD50	Intravenous	350 mg/kg
Triethylenetetramine	Rabbit	LD50	Skin	805 mg/kg

#### Skin corrosion/irritation

Causes severe skin burns and eye damage.

#### Serious eye damage/irritation

Causes serious eye damage.

#### Respiratory or skin sensitisation

May cause an allergic skin reaction.

#### Germ cell mutagenicity

No data available.

#### Carcinogenicity

No data available.

#### Reproductive toxicity

No data available.

#### STOT-single exposure

No data available.

According to EC-Regulation 1907/2006 (REACH)

### STOT-repeated exposure

No data available.

### Aspiration hazard

No data available.

### Long term effects

Tissue damaging effects: This product contains substances which are corrosive. If vapour or aerosols are inhaled, it can result in damage to lungs, irritation and burns in the respiratory organs as well as coughing. Corrosive substances cause irreversible damage to eyes and acid burns to skin.

Sensitivity effects: This product contains substances which can give an allergic reaction on contact with skin. The allergic reaction will typically set in 12-72 hours after exposure as the substance penetrates the skin and reacts with proteins in the outer skin. The body's immune system sees the chemically changed protein as a foreign body and will try to destroy it.

## SECTION 12: Ecological information

### 12.1. Toxicity

Substance	Species	Test	Test duration	Result
Triethylenetetramine	Daphnia	LC50	48 h	33900 µg/L

### 12.2. Persistence and degradability

Substance	Biodegradability	Test	Result
No data available.			

### 12.3. Bioaccumulative potential

Substance	Potential bioaccumulation	LogPow	BFC
No data available.			

### 12.4. Mobility in soil

Triethylenetetramine: Log Koc= -2,020135, Calculated from LogPow ().

### 12.5. Results of PBT and vPvB assessment

No data available

### 12.6. Other adverse effects

This product contains substances which can cause undesirable long-term effects in the water environment, due to its poor biodegradability.

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

The product is covered by the regulations on dangerous waste.

#### Waste

EWC code

-

#### Specific labelling

-

#### Contaminated packing

Packaging which contains leftovers from the product must be disposed of in the same way as the product.

## SECTION 14: Transport information

This product is covered by the conventions on dangerous goods.

### 14.1 – 14.4

ADR/RID	14.1. UN number	14.2. UN proper shipping name	14.3. Transport hazard class(es)	14.4. Packing group	Notes		
	2259	TRIETHYLENETETRAMINE	8	II	-		
IMDG	UN-no.	Proper Shipping Name	Class	PG*	EmS	MP**	Hazardous constituent
	2259	TRIETHYLENETETRAMINE	8	II	F-A, S-B	-	-

### 14.5. Environmental hazards

-

According to EC-Regulation 1907/2006 (REACH)

#### 14.6. Special precautions for user

-

#### 14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

No data available

(\*) Packing group

(\*\*) Marine pollutant

### SECTION 15: Regulatory information

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

##### Restrictions for application

People under the age of 18 must not be exposed to this product cf. Council Directive 94/33/EC.

##### Demands for specific education

-

##### Additional information

-

#### 15.2. Chemical safety assessment

No

### SECTION 16: Other information'

#### Sources

EC regulation 1907/2006 (REACH)

Directive 2000/532/EC

EC Regulation 1272/2008 (CLP)

#### Full text of H/R-phrases as mentioned in section 3

R21 - Harmful in contact with skin.

R34 - Causes burns.

R43 - May cause sensitisation by skin contact.

R52 - Harmful to aquatic organisms.

R53 - May cause long-term adverse effects in the aquatic environment.

H312 - Harmful in contact with skin.

H314 - Causes severe skin burns and eye damage.

H317 - May cause an allergic skin reaction.

H412 - Harmful to aquatic life with long lasting effects.

#### The full text of identified uses as mentioned in section 1

-

#### Other symbols mentioned in section 2

-

#### Other

It is recommended to hand over this safety data sheet to the actual user of the product. Information in this safety data sheet cannot be used as a product specification.

The information in this safety data sheet applies only to this specific product (mentioned in section 1) and is not necessarily correct for use with other chemicals/products.

A change (in proportion to the last essential change (first cipher in SDS version)) is marked with a blue triangle.

#### The safety data sheet is validated by

AW /CHYMEIA

#### Date of last essential change (First cipher in SDS version)

-

#### Date of last minor change (Last cipher in SDS version)

-