

Safety Data Sheet

Elan-tron W 4539 (EpoxyLite EIP 4539 hardener)

Safety Data Sheet dated 8/10/2009, version 3, #4020



1. DESIGNATION OF PRODUCT AND COMPANY

Trade name: Elan-tron W 4539 (EpoxyLite EIP 4539 hardener)
Chemical description: Cycloaliphatic and aliphatic amine based compound.
Supplier: Elantas Camattini spa - Via Antolini 1 - 43044
Collecchio (PR) www.elantas.com;
info.elantas.camattini@altana.com
Emergency telephone number: 0039/521/304711 fax 0039/521/804679 - 804410
Competent person responsible for the safety data sheet:
MSDS.elantas.camattini@altana.com

2. HAZARDS IDENTIFICATION

The product is harmful following acute exposure to it and poses a serious health threat if ingested. The product is highly corrosive and, if brought into contact with the skin, causes serious burning, with the rapid destruction of the entire thickness of skin tissue.
If brought into contact with the skin, the product may cause sensitisation of the skin.
This product is a threat to the environment; it is harmful to aquatic organisms following acute exposure.
In the long term this product may have negative effects on the aquatic environment, because it is not easily biodegradable and/or bioaccumulable.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous components under the EEC directive 67/548 or components for which European Community exposure values exists:

50% - 75% 2,2,4-(2,4,4-)Trimethylehexamethylenediamine

CAS: 25620-58-0 EC: 247-134-8

Xn,Xi,C; R22-34-43-52/53

20% - 30% benzyl alcohol

N.67/548/EEC: 603-057-00-5 CAS: 100-51-6 EC: 202-859-9

Xn; R20/22

10% - 20% 3-aminomethyl-3,5,5-trimethylcyclohexylamine

N.67/548/EEC: 612-067-00-9 CAS: 2855-13-2 EC: 220-666-8

Xn,Xi,C; R21/22-34-43-52/53

< 5% 2,4,6-tris(dimethylaminomethyl)phenol

N.67/548/EEC: 603-069-00-0 CAS: 90-72-2 EC: 202-013-9

Xn,Xi; R22-36/38

4. FIRST-AID MEASURES

Contact with skin:

Immediately take off all contaminated clothing.

Remove the product with a cloth or absorbent paper. Do not use solvents.

Wash with plenty of water and soap.

Seek medical advice.

Contact with eyes:

Wash immediately and thoroughly with running water, keeping eyelids raised, for at least 10 minutes. Following this, protect the eyes with sterile gauze or a clean, dry, handkerchief. Seek medical advice.

Do not use eyewash or ointment of any kind before obtaining an examination or advice from an ophthalmologist.

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Swallowing:

Do not under any circumstance induce vomiting. Seek medical advice immediately.

Inhalation:

Ventilate the premises. The patient is to be removed immediately from the contaminated premises to rest in a well ventilated area. Call a physician.

5. FIRE FIGHTING MEASURES

Recommended extinguishers:

CO₂, Foam, Chemical powders or sand. Use water based extinguishing media with caution.

Extinguishers not to be used:

None in particular.

Risks arising from combustion:

Avoid inhaling the fumes. Incomplete combustion releases toxic gases.

Protective equipment:

Use protection for the airways.

6. MEASURES IN CASE OF ACCIDENTAL RELEASE

Measures for personal safety:

Use a mask, gloves and protective clothing.

Environmental measures:

Limit leakages with earth or sand.

If the product has flown off into a water course, into the drainage system, or has contaminated the ground or vegetation, notify the responsible authorities.

Cleaning methods:

Rapidly collect the product. To do so, wear a mask and protective clothing.

If the product is in a liquid form, stop it from entering the drainage system.

Recover the product for re-use if possible, or for elimination in compliance with waste disposal regulations in force. The product might, where appropriate, be absorbed by inert material.

After the product has been removed, rinse the involved area and materials with water that must be disposed in compliance with regulations in force.

7. HANDLING AND STORAGE

Handling precautions:

Avoid contact with and inhalation of vapours and/or dusts. See also paragraph 8 below.

Do not eat or drink or smoke while working. Wash hands before breaks and at the end of work. Maintain a sufficient personal care.

Incompatible materials:

The product reacts with acids, isocyanates, oxidants and epoxy, chlorinated and carbonylic compounds

Storage conditions:

The product is moisture sensitive. Keep in a dry place in the original containers tightly closed.

Instructions regarding storage facilities:

Avoid exposition to low temperature ($T > 15^{\circ}\text{C}$).

8. EXPOSURE CONTROL/PERSONAL PROTECTION

Precautionary measures:

Provide adequate ventilation to the areas where the product is stored and/or handled.

Respiratory protection:

Required where ventilation/aspiration is insufficient or exposure is prolonged, or for applications in which the product is sprayed or heated.

Required in case of machining or applications that release dusts.

Protection for hands (use Standard EN 374):

Use protective gloves.

For an extended exposure of the product, wear nitrile/neoprene gloves.

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Eye protection:

Required in case of machining or applications that release dusts.

Safety goggles.

Protection for skin:

Use clothing that provides complete protection to the skin.

Available Exposure Limits (ACGIH) for substances of section 2:

None

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance and colour:	Pale yellow liquid
Odour:	Amoniacal
pH:	n.d.
Melting point:	n.d.
Boiling point:	n.d.
Flash point:	> 110 ° C (DIN 51758)
Explosive properties:	N.A.
Combustion-related properties:	N.A.
Vapour pressure:	n.d.
Specific gravity ASTM D 1475:	0,98
Solubility in water:	leggermente Soluble
Lipid solubility:	N.A.
Partition coefficient (n-octanol/H ₂ O) :	n.d.
Dynamic viscosity EN13702-2:	10 - 20 mPa.s (25°C)
Vapour density:	N.A.

10. STABILITY AND REACTIVITY

Conditions to avoid:

Stable under normal conditions.

Substances to avoid:

None in particular.

Hazardous decomposition products:

None in particular.

It may generate toxic gases on contact with oxidising mineral acids, halogenated organic substances, organic peroxides and hydroperoxides, and powerful oxidising agents.

Upon combustion CO, CO₂, NH₃, NO_x and other nitrogen containing compounds are formed.

11. TOXICOLOGICAL INFORMATION

No toxicological data related to the preparation are available.

When available, the toxicological information relating to the main components are listed below.

2,2,4-(2,4,4-)Trimethylehexamethylenediamine

LD50 (oral): > 900 mg/kg (rat)

Vapours are irritating to the respiratory system.

benzyl alcohol

LD50 (oral): > 1.000 mg/kg (rat)

LD50 (dermal): 2.000 mg/kg (rabbit)

LC50 (inhalation): 2000 ppm (4 h, rat)

High vapours concentrations may cause irritation to eyes and to the respiratory system and induce narcosis.

3-aminomethyl-3,5,5-trimethylcyclohexylamine

Acute toxicity LD50 (oral): > 1.000 mg/kg (rat)

Sensibilisation (Magnusson-Kligman test), test-animal strongly sensibilising.

2,4,6-tris(dimethylaminomethyl)phenol

oral LD50, rat 1670 mg/kg

dermal LD50, rabbit 1242 mg/kg

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12. ECOLOGICAL INFORMATION

Adopt sound working practices, so that the product is not released into the environment.
When available, the toxicological information relating to the main components are listed below.

2,2,4-(2,4,4-)-Trimethylehexamethylenediamine

Not expected to be biodegradable.

Acute toxicity LC/EC/IC 50 : > 30 mg/l

benzyl alcohol

Expected to be readily biodegradable.

Acute toxicity TLm/48h/Daphnia: 360 ppm

3-aminomethyl-3,5,5-trimethylcyclohexylamine

Not expected to be readily biodegradable.

42% (Coupled Units Test)

8% (Metodo Ce79/831)

Acute toxicity

Fishes LC50: 110mg/l /96h

Daphnia Magna EC50: 44mg/l 24h

Scenedesmus subspicatus EC50>50mg/l /72h

Pseudomonas putida EC10 1,120 mg/l /18 h

13. DISPOSAL CONSIDERATIONS

Recover, if possible. Send to authorised disposal plants or for incineration under controlled conditions. In so doing, comply with the local and national regulations currently in force.

14. TRANSPORT INFORMATION

UN number: 1760

Proper shipping name: Liquid CORROSIVO, N.A.S. (Trimetilesametilendiammina)/
CORROSIVE LIQUID, N.O.S. (Trimethylenhexamethylenediamine)

Road/Rail (ADR/RID): 8 II

Sea (IMDG): 8 II

Sea (EmS): F-A, S-B

Air (ICAO/IATA): 8 II

15. REGULATORY INFORMATION

Council Directive 67/548/EEC (Classification, packaging and labelling of dangerous substances) and subsequent amendments. Commission Directive 1999/45/EC (Classification, packaging and labelling of dangerous preparation) and subsequent amendments. Commission Directive 98/24/EC (Protection of the health and safety of workers from the risk related to chemical agent). Commission Directive 2000/39/EC (Occupational exposure limit values). Regulation (EC) No 1907/2006 (REACH).

Symbols:

C Corrosive

R Phrases:

R22 Harmful if swallowed.

R35 Causes severe burns.

R43 May cause sensitization by skin contact.

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

S Phrases:

S24/25 Avoid contact with skin and eyes.

S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S27 Take off immediately all contaminated clothing.

S36/37/39 Wear suitable protective clothing, gloves and eye/face protection.

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S45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

S60 This material and its container must be disposed of as hazardous waste.

Contents:

2,2,4-(2,4,4-)Trimethylehexamethylenediamine
3-aminomethyl-3,5,5-trimethylcyclohexylamine

Where applicable, refer to the following regulatory provisions :

Directive 98/24/CE

Directive 91/156/EC; 91/689/EC; 94/62/EC (waste disposal).

Directive 82/501/EEC ('Activities linked to risks of serious accidents') and subsequent amendments.

16. OTHER INFORMATION

Text of phrases referred to under heading 3:

R20/22 Harmful by inhalation and if swallowed.

R21/22 Harmful in contact with skin and if swallowed.

R22 Harmful if swallowed.

R34 Causes burns.

R36/38 Irritating to eyes and skin.

R43 May cause sensitization by skin contact.

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

Main bibliographic sources:

NIOSH - Registry of toxic effects of chemical substances

I.N.R.S. - Fiche Toxicologique

ACGIH - Threshold Limit Values - 2004 edition

The information contained herein is based on our state of knowledge at the above-specified date. It refers solely to the product indicated and constitutes no guarantee of particular quality.

It is the duty of the user to ensure that this information is appropriate and complete with respect to the specific intended use.

This MSDS cancels and replaces any previous releases.

The information contained herein is based on what we believe to be reliable data, but it is presented without guarantee or warranty by our part and Elantas Camattini spa disclaims any liability incurred from the use thereof.

Nothing contained herein is to be construed as recommendations for use in violation of any existing patent, foreign or domestic, or of applicable laws and regulations.

Please contact Elantas Camattini spa for further information about the product and its use.

It is recommended to give this MSDS to customers and handlers.