SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Product name: SPECIFIX - 20 CURING AGENT
Cat. No. 40200052, 40200048

Container size: 200 ml, 500 ml

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

Application: For embedding and impregnation of materialographic specimens

1.3. Details of the supplier of the safety data sheet

Supplier: Struers ApS
Pederstrupvej 84
DK-2750 Ballerup
Tel:+45 44 600 800

Responsible for safety data sheet authoring: Responsible for safety data sheet authoring: DHI
Any questions to the contents of this safety data sheet should be sent to: struers@struers.dk

1.4. Emergency telephone number

NHS: 111

+45 44 600 800
(Only during office hours)
SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

CLP:
- Acute Tox. 4;H302
- Acute Tox. 3;H311
- Acute Tox. 4;H332
- Skin Corr. 1A;H314
- Skin Sens. 1;H317
- Eye Dam. 1;H318
- STOT SE 3;H335

2.2. Label elements

Danger

Contains:
- 2-Methyl-1,5-pentamethylene-diamine
- Diethylaminopropylamine

H302 + H332 Harmful if swallowed or if inhaled.
H311 Toxic in contact with skin.
H317 May cause an allergic skin reaction.
H314 Causes severe skin burns and eye damage.
H335 May cause respiratory irritation.
P260 Do not breathe gas, fume, vapours or spray.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTER/doctor.
P363 Wash contaminated clothing before reuse.

2.3. Other hazards

PBT/vPvB:

Not Classified as PBT/vPvB by current EU criteria.

Other:
Be aware that symptoms of lung oedema (shortness of breath) may develop up to 24 hours after exposure.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2. Mixtures

The product contains: hardener.
SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

**Inhalation:**
Move injured person into fresh air and keep person calm under observation. If necessary, seek hospital and bring these instructions. Be aware that symptoms of lung oedema (shortness of breath) may develop up to 24 hours after exposure. Immediately call an ambulance.

**Skin contact:**
Flush immediately with plenty of water and remove contaminated clothing. Call an ambulance, continue to rinse during transportation to hospital and bring these instructions.

**Eye contact:**
Immediately flush with plenty of water. Remove any contact lenses and open eyes wide apart. Call an ambulance and continue flushing during transportation to hospital. Bring these instructions.

**Ingestion:**
Immediately call a Poison Center/doctor. Rinse mouth. Do not induce vomiting. Do not drink anything without first consulting a doctor. Have these instructions at hand. (*)

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

**Symptoms/effects:**
See section 11 for more detailed information on health effects and symptoms.

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

**Medical attention/treatments:**
Treat symptomatically.
SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing media
Extinguishing media: Use fire-extinguishing media appropriate for surrounding materials.

Unsuitable extinguishing media: No specific precautions.

5.2. Special hazards arising from the substance or mixture
Specific hazards: When heated and in case of fire, very toxic nitrogen oxides may be formed.

5.3. Advice for firefighters
Protective equipment for firefighters: Selection of respiratory protection for fire fighting: follow the general fire precautions indicated in the workplace.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures
Protective equipment: Avoid inhalation of vapours and aerosols and contact with skin and eyes. For personal protection, see section 8.

Emergency procedures: No specific recommendations. For personal protection, see section 8.

6.2. Environmental precautions
Environmental precautions: Do not discharge into drains, water courses or onto the ground.

6.3. Methods and material for containment and cleaning up
Methods for cleaning up: Absorb spillage with non-combustible, absorbent material.

6.4. Reference to other sections
References: For personal protection, see section 8. For waste disposal, see section 13.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling
Safe handling advice: Avoid inhalation of vapours and aerosols and contact with skin and eyes. Immediately change contaminated clothes. Observe good chemical hygiene practices.

Technical measures: Work practice should minimise contact.

Technical precautions: Local exhaust is recommended. Provide easy access to water supply and eye wash facilities.

7.2. Conditions for safe storage, including any incompatibilities
Technical measures for safe storage: No special precautions.

Storage conditions: Store in tightly closed original container in a dry, cool and well-ventilated place. Store locked up.

7.3. Specific end use(s)
Specific use(s): No information available.
8.1. Control parameters

No occupational exposure limit assigned.

8.2. Exposure controls

Engineering measures: Provide adequate ventilation. Local exhaust is recommended. An eye wash bottle must be available at the work site.

Personal protection: Personal protection equipment should be chosen according to the CEN standards and in discussion with the supplier of the personal protective equipment.

Respiratory equipment: In case of inadequate ventilation and work of brief duration, use suitable respiratory equipment. It is recommended to use respiratory equipment with combination filter, type ABEK.

Hand protection: Wear protective gloves. Butyl rubber gloves are recommended. The most suitable glove must be chosen in consultation with the gloves supplier, who can inform about the breakthrough time of the glove material.

Eye protection: Wear goggles/face shield.

Skin protection: Wear apron or protective clothing in case of contact.

Hygiene measures: Wash contaminated clothing before reuse.

Environmental Exposure Controls: Not available.
SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Form: Liquid.
Colour: Yellow.
Odour: characteristic
Odour threshold: Not available.
\( \text{pH} \): Not available.
Melting point: Not available.
Boiling point: Not available.
Flash point: 74.5°C
Evaporation rate: Not available.
Flammability (solid, gas): Not available.
Explosive limits: Not available.
Vapour pressure: Not available.
Vapour density: Not available.
Relative density: 0.86
Solubility: Not available.
Partition coefficient (n-octanol/water): Not available.
Auto-ignition temperature (°C): Not available.
Decomposition temperature (°C): Not available.
Viscosity: Not available.
Explosive properties: Not available.
Oxidising properties: Not available.

9.2. Other information

Other data: Volatile Organic Compound (VOC): 860 g/l (calculated)
SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity
Reactivity:
None under normal conditions.

10.2. Chemical stability
Stability:
Stable under normal temperature conditions.

10.3. Possibility of hazardous reactions
Hazardous Reactions:
No data available.

10.4. Conditions to avoid
Conditions/materials to avoid:
Heating. Direct sunlight.

10.5. Incompatible materials
Incompatible materials:
Reacts violently with strong oxidising substances.

10.6. Hazardous decomposition products
Hazardous decomposition products:
When heated and in case of fire, very toxic nitrogen oxides are formed.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects
Acute Toxicity (Oral):
Harmful if swallowed.

Acute Toxicity (Dermal):
Toxic in contact with skin.

Acute Toxicity (Inhalation):
Harmful if inhaled.

Skin Corrosion/Irritation:
Causes severe burns.

Serious eye damage/irritation:
Causes serious eye damage.

Respiratory or skin sensitisation:
May cause an allergic skin reaction.

Germ cell mutagenicity:
Based on available data, the classification criteria are not met.

Carcinogenicity:
Based on available data, the classification criteria are not met.

Reproductive Toxicity:
Based on available data, the classification criteria are not met.

STOT - Single exposure:
May cause respiratory irritation.

STOT - Repeated exposure:
Based on available data the classification criteria are not met.

Aspiration hazard:
Based on available data, the classification criteria are not met.

Inhalation:
After 24-36 hours, injured persons may develop serious shortness of breath and lung oedema.

Skin contact:
Toxicological information on ingredients.
Diethylaminopropylamine: LD50 (Dermal, Rabbit): 525 mg/kg

Ingestion:
Toxicological information on ingredients.
Diethylaminopropylamine: LD50 (oral, rat): 830 mg/kg
2-Methyl-1,5-pentamethylen-diamine: LD50 (oral, rat): 1690 mg/kg
SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity
Ecotoxicity: The environmental hazard of the product is considered to be limited.

12.2. Persistence and degradability
Degradability: The product is biodegradable.

12.3. Bioaccumulative potential
Bioaccumulative potential: No data available on bioaccumulation.

12.4. Mobility in soil
Mobility: No data available.

12.5. Results of PBT and vPvB assessment
PBT/vPvB: This product does not contain any PBT or vPvB substances.

12.6. Other adverse effects
Other adverse effects: No information available.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods
Waste from residues: Dispose of waste and residues in accordance with local authority requirements.
Waste is classified as hazardous waste. Note that fully cured material is not considered as hazardous waste.

EWC-code: 16 05 08

Contaminated packaging: Dispose of waste and residues in accordance with local authority requirements.
SECTION 14: TRANSPORT INFORMATION

The product is covered by international regulation on the transport of dangerous goods (IMDG, IATA, ADR/RID).

14.1. UN number
UN-No: 2735

14.2. UN proper shipping name
Proper Shipping Name: AMINES, LIQUID, CORROSIVE, N.O.S. (2-Methyl-1,5-pentamethylen-diamine)

Additional IMDG information:
EmS: F-A, S-B
MFAG: 1
Segregation Group: Alkali

14.3. Transport hazard class(es)
Class: 8

14.4. Packing group
PG: I

14.5. Environmental hazards
Marine pollutant: No.
Environmentally Hazardous substance: No.

14.6. Special precautions for user
Special precautions: None known.

14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code
Transport in bulk: Not relevant.
SECTION 15: REGULATORY INFORMATION

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

Special provisions: As a general rule, persons under 18 years of age are not allowed to work with this product. Users must be carefully instructed in the proper work procedure, the dangerous properties of the product and the necessary safety instructions.

The Control of Substances Hazardous to Health Regulations 2002 (S.I 2002 No. 2677) with amendments.
The Management of Health and Safety at Work Regulations 1999 (SI 1999 No. 3242), with amendments.

15.2. Chemical Safety Assessment

CSA status: Not relevant.
SECTION 16: OTHER INFORMATION

The user must be instructed in the proper work procedure and be familiar with the contents of these instructions.

The following sections contain revisions or new statements: 4.
The (*) indicates the changes made with respect to the previous version.

Approved by DHI.

Additional information: Classification according to Regulation (EC) No. 1272/2008:
Calculation method.

Wording of H-statements:
H226 Flammable liquid and vapour.
H302 Harmful if swallowed.
H311 Toxic in contact with skin.
H312 Harmful in contact with skin.
H314 Causes severe skin burns and eye damage.
H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.
H332 Harmful if inhaled.
H335 May cause respiratory irritation.