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

Product identifier
Product name: SPECIFIX - 20 CURING AGENT
Cat. No. 40200052, 40200048
Container size: 200 ml, 500 ml

Relevant identified uses of the substance or mixture and uses advised against
Application: For embedding and impregnation of materialographic specimens

Details of the supplier of the safety data sheet
Supplier: Struers ApS
Pederstrupvej 84
DK-2750 Ballerup
Tel: +45 44 600 800

Responsible for material safety data sheet authoring: Responsible for material safety data sheet authoring: DHI

Any questions to the contents of this material safety data sheet should be sent to: struers@struers.dk

Emergency telephone number
National Capital Poison Center: 1-800-222-1222
Infotrac: 1-800-535-5053
Struers US: 1-440-871-0071

SECTION 2: HAZARDS IDENTIFICATION

Classification of the substance or mixture
OSHA 2012:
Acute Oral Toxicity Category 4
Acute Dermal Toxicity Category 3
Acute Inhalation Toxicity Category 4
Skin Corrosive Category 1A
Skin Sensitizer Category 1
Serious Eye Damage Category 1
Category 3 Target organ toxicant, Single Exposure (respiratory tract irritation)
SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

**Mixtures**

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

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 edema (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 taking along 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. (*)

Most important symptoms and effects, both acute and delayed

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

Indication of any immediate medical attention and special treatment needed

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

Extinguishing media

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

Unsuitable extinguishing media: No specific precautions.

Special hazards arising from the substance or mixture

Specific hazards: When heated and in case of fire, very toxic nitrogen oxides may be formed.

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

Personal precautions, protective equipment and emergency procedures

Protective equipment: Avoid inhalation of vapors 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.

Environmental precautions

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

Methods and material for containment and cleaning up

Spill Cleanup Methods: Absorb spillage with non-combustible, absorbent material.

References to other sections

References: For personal protection, see section 8. For waste disposal, see section 13.

SECTION 7: HANDLING AND STORAGE

Precautions for safe handling

Safe handling advice: Avoid inhalation of vapors and aerosols and contact with skin and eyes. Immediately change contaminated clothes. Observe good chemical hygiene practices.

Technical measures: Work practice should minimize contact.

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

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.

Specific end use(s)

Specific use(s): No information available.
SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

No occupational exposure limit assigned.

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 ANSI 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

Information on basic physical and chemical properties

Form: Liquid.
Color: Yellow.
Odor: characteristic
Odor threshold: Not available.
pH: Not available.
Melting point: Not available.
Boiling point: Not available.
Flash point: 166.1°F
Evaporation rate: Not available.
Flammability (solid, gas): Not available.
Explosion limits: Not available.
Vapor pressure: Not available.
Vapor density: Not available.
Relative density: 0.86
Solubility: Not available.
Partition coefficient (n-octanol/water): Not available.
Auto-ignition temperature (°F): Not available.
Decomposition temperature (°F): Not available.
Viscosity: Not available.
Explosive properties: Not available.
Oxidizing properties: Not available.

Other information

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

Reactivity
Reactivity: None under normal conditions.

Chemical stability
Stability: Stable under normal temperature conditions.

Possibility of hazardous reactions
Hazardous Reactions: No data available.

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

Incompatible materials
Incompatible materials: Reacts violently with strong oxidizing substances.

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

SECTION 11: TOXICOLOGICAL INFORMATION

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 sensitization: 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. National Toxicology Program (NTP): No.
I.A.R.C. Monographs: No.
OSHA: No.
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 edema.
Skin contact: Toxicological information on ingredients.
Diethylaminopropylamine: LD50 (Dermal, Rabbit): 525 mg/kg
2-Methyl-1,5-pentamethylen-diamine: LD50 (oral, rat): 1690 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

**Toxicity**

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

**Persistence and degradability**

Degradability: The product is biodegradable.

**Bioaccumulative potential**

Bioaccumulative potential: No data available on bioaccumulation.

**Mobility in soil**

Mobility: No data available.

**Results of PBT and vPvB assessment**

PBT/vPvB: This product does not contain any PBT or vPvB substances.

**Other adverse effects**

Other adverse effects: No information available.

SECTION 13: DISPOSAL CONSIDERATIONS

**Waste treatment methods**

Waste from residues: Dispose of waste and residues in accordance with local authority requirements.

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).

**UN number**

UN-No: 2735

**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

**Transport hazard class(es)**

Class: 8

**Packing group**

PG: I

**Environmental hazards**

- Marine pollutant: No.
- Environmentally Hazardous substance: No.

**Special precautions for user**

Special precautions: None known.

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

Transport in bulk: Not relevant.
SECTION 15: REGULATORY INFORMATION

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

Special provisions:
State and local regulation may apply.

TSCA: Listed.

NFPA Rating:
- Health: 3
- Fire: 2
- Reactivity: 0
- Other: -

SARA Section 302: No.
SARA Section 304: No.
SARA Section 313: No.
SARA (311/312) Hazard categories: Yes.

National regulation:
The following lists have been checked:
- Threshold Limit Values (2018), ACGIH, by the American Conference on Governmental Industrial Hygienists.
- NIOSH Pocket Guide to Chemical Hazards.
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 HCS 2012:
Calculation method.

The information on this data sheet represents our current data and is reliable provided that the product is used under the prescribed conditions and in accordance with the application specified on the packaging and/or in the technical guidance literature. Any other use of the product which involves using the product in combination with any other product or any other process is the responsibility of the user.

Made by DHI - Environment and Toxicology, Agern Allé 5, DK-2970 Hørsholm, Denmark.