

Product name:	SPECIFIX - 20 CURING AGENT	Page:	1/10
Revision Date:	2014-05-26	Print date:	2014-05-26
Document No.:	M0074	SDS-ID:	AU-EN/16.0

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 of materialographic specimens

Details of the supplier of the safety data sheet

Supplier: Struers Australia
27 Mayneview Street
Milton QLD 4064, Australia

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:
Lisbeth.Mygind@struers.dk

Emergency telephone number

Emergency telephone: +61 7 3512 9600
(Only during office hours)

SAFETY DATA SHEET

Product name: SPECIFIX - 20 CURING AGENT Page: 2/10
Revision Date: 2014-05-26 Print date: 2014-05-26
Document No.: M0074 SDS-ID: AU-EN/16.0

SECTION 2: HAZARDS IDENTIFICATION

Classification of the substance or mixture

This product is classified as hazardous according to criteria of NOHSC:
HAZARDOUS SUBSTANCES. DANGEROUS GOODS

67/548/EEC / 1999/45/EC: C;R35 Xn;R20/22 R43 (*)

GHS: Acute Tox. 4;H302 - Acute Tox. 4;H332 - Skin Corr. 1A;H314 - Eye Dam. 1;H318 - Skin Sens. 1;H317 - STOT RE 2;H373 (*)

Physical and Chemical Hazards: The dangerous properties of the product are considered limited.

Human health: Harmful if swallowed or if inhaled. Causes severe skin burns and eye damage. Be aware that symptoms of lung oedema (shortness of breath) may develop up to 24 hours after exposure. May cause an allergic skin reaction. May cause damage to organs through prolonged or repeated exposure if inhaled. (*)

Environment: The hazardous properties of the product in the environment are considered to be limited.

Label elements

(*)



Danger

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

H302/332 Harmful if swallowed or if inhaled.
H314 Causes severe skin burns and eye damage.
H317 May cause an allergic skin reaction.
H373a May cause damage to organs through prolonged or repeated exposure if inhaled.
P260g Do not breathe gas, fume, vapours or spray.
P262 Do not get in eyes, on skin, or on clothing.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P305/351/338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P303/361/353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P310 Immediately call a POISON CENTER or doctor/physician.

Other hazards

PBT/vPvB: Not relevant.

SAFETY DATA SHEET

Product name: SPECIFIX - 20 CURING AGENT Page: 3/10
Revision Date: 2014-05-26 Print date: 2014-05-26
Document No.: M0074 SDS-ID: AU-EN/16.0

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Mixtures

The product contains: hardener.

(*)

67/548/EEC:

<u>%:</u>	<u>CAS-No.:</u>	<u>EC No.:</u>	<u>REACH Reg. No.:</u>	<u>Chemical name:</u>	<u>Hazard classification:</u>	<u>Notes:</u>
90-100	15520-10-2	239-556-6	-	2-Methyl-1,5-pentamethylen-diamine	C;R35 Xn;R20/22	
1-10	104-78-9	203-236-4	-	Diethylaminopropylamine	R10 C;R34 Xn;R21/22 R43	

GHS:

<u>%:</u>	<u>CAS-No.:</u>	<u>EC No.:</u>	<u>REACH Reg. No.:</u>	<u>Chemical name:</u>	<u>Hazard classification:</u>	<u>Notes:</u>
90-100	15520-10-2	239-556-6	-	2-Methyl-1,5-pentamethylen-diamine	Acute Tox. 4;H302 Acute Tox. 4;H332 Skin Corr. 1A;H314 STOT RE 2;H373	
1-10	104-78-9	203-236-4	-	Diethylaminopropylamine	Flam. Liq. 3;H226 Acute Tox. 3;H311 Acute Tox. 4;H302 Skin Corr. 1A;H314 Eye Dam. 1;H318 Skin Sens. 1;H317	

References: The full text for all R-phrases and hazard statements are displayed in section 16.

SECTION 4: FIRST AID MEASURES

Description of first aid measures

Inhalation: Move into fresh air and keep at rest. Be aware that symptoms of lung oedema (shortness of breath) may develop up to 24 hours after exposure. Immediately call an ambulance.

Skin contact: Remove contaminated clothes and rinse skin thoroughly with water. In case of rashes, wounds or other skin disorders: Seek medical attention and bring along 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 rinse mouth and drink plenty of water. Call an ambulance. Bring along these instructions. Do not induce vomiting. (*)

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: Not known.

SAFETY DATA SHEET

Product name:	SPECIFIX - 20 CURING AGENT	Page:	4/10
Revision Date:	2014-05-26	Print date:	2014-05-26
Document No.:	M0074	SDS-ID:	AU-EN/16.0

SECTION 5: FIREFIGHTING MEASURES

Extinguishing media

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

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 fire-fighters: 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

Personal precautions: Avoid inhalation of vapours and aerosols and contact with skin and eyes. (*)

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.

Reference 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 vapours and aerosols and contact with skin and eyes. Immediately change drenched clothing. 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.

Conditions for safe storage, including any incompatibilities

Technical measures for safe storage: No special precautions. Follow rules for flammable liquids.

Storage conditions: Store in tightly closed original container in a dry, cool and well-ventilated place. Avoid contact with oxidising agents.

Specific end use(s)

Specific use(s): Not relevant.

SAFETY DATA SHEET

Product name:	SPECIFIX - 20 CURING AGENT	Page:	5/10
Revision Date:	2014-05-26	Print date:	2014-05-26
Document No.:	M0074	SDS-ID:	AU-EN/16.0

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

No occupational exposure limit assigned.

Exposure controls

<u>Engineering measures:</u>	Provide adequate ventilation. Local exhaust is recommended. An eye wash bottle must be available at the work site.
<u>Personal protection:</u>	Personal protection equipment should be chosen according to the CEN standards and in discussion with the supplier of the personal protective equipment.
<u>Respiratory equipment:</u>	In case of inadequate ventilation and work of brief duration, use suitable respiratory equipment. Use respiratory equipment with gas filter, type K.
<u>Hand protection:</u>	Wear protective gloves. Neoprene 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.
<u>Eye protection:</u>	Wear goggles/face shield.
<u>Skin protection:</u>	Wear apron or protective clothing in case of splashes.
<u>Environmental Exposure Controls:</u>	Not available.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

<u>Appearance:</u>	yellow liquid
<u>Odour:</u>	characteristic
<u>pH:</u>	Not available.
<u>Boiling point:</u>	Not available.
<u>Flash point:</u>	74,5°C
<u>Explosion limits:</u>	Not available.
<u>Relative density:</u>	0,86
<u>Solubility:</u>	Not available.
<u>Other information</u>	
<u>Other data:</u>	VOC (Volatile Organic Substances): 860 g/l (calculated)

SAFETY DATA SHEET

Product name:	SPECIFIX - 20 CURING AGENT	Page:	6/10
Revision Date:	2014-05-26	Print date:	2014-05-26
Document No.:	M0074	SDS-ID:	AU-EN/16.0

SECTION 10: STABILITY AND REACTIVITY

Reactivity

Reactivity: None known.

Chemical stability

Stability: Stable under normal temperature conditions.

Possibility of hazardous reactions

Hazardous Reactions: None known.

Conditions to avoid

Conditions/materials to avoid: Heating. Direct sunlight. Reacts violently with strong oxidising substances.

Incompatible materials

Incompatible materials: None known.

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

Inhalation: Not relevant at normal room temperatures. When heated, corrosive and toxic vapours may be formed. Harmful if inhaled. May cause damage to organs through prolonged or repeated exposure if inhaled. After 24-36 hours, injured persons may develop serious shortness of breath and lung oedema. (*)

Skin contact: Causes severe burns. May cause an allergic skin reaction.
Diethylaminopropylamine: LD50 (Dermal, Rabbit): 525 mg/kg

Eye contact: Causes serious eye damage.

Ingestion: Harmful if swallowed. Corrosive. Even small amounts may cause serious damage.

Diethylaminopropylamine: LD50 (oral, rat): 830 mg/kg
2-Methyl-1,5-pentamethylen-diamine: LD50 (oral, rat): 1690 mg/kg (*)

Specific effects: None known.
Carcinogenicity:
National Toxicology Program (NTP): No.
I.A.R.C. Monographs: No.

SAFETY DATA SHEET

Product name:	SPECIFIX - 20 CURING AGENT	Page:	7/10
Revision Date:	2014-05-26	Print date:	2014-05-26
Document No.:	M0074	SDS-ID:	AU-EN/16.0

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: Not relevant.

Other adverse effects

Other adverse effects: None known.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste treatment methods

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.

Waste from residues: EWC-code: 16 05 08

SAFETY DATA SHEET

Product name:	SPECIFIX - 20 CURING AGENT	Page:	8/10
Revision Date:	2014-05-26	Print date:	2014-05-26
Document No.:	M0074	SDS-ID:	AU-EN/16.0

SECTION 14: TRANSPORT INFORMATION

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.

SAFETY DATA SHEET

Product name:	SPECIFIX - 20 CURING AGENT	Page:	9/10
Revision Date:	2014-05-26	Print date:	2014-05-26
Document No.:	M0074	SDS-ID:	AU-EN/16.0

SECTION 15: REGULATORY INFORMATION

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.
AICS: Listed.

National regulation: Work Health and Safety Regulations 2011
National model Code of Practice for the Labelling of Workplace Hazardous Chemicals (2011)
Council Directive 94/33/EC of 22 June 1994 on the protection of young people at work, with amendments.
National Code of Practice for the preparation of material safety data sheets 2nd edition [NOHSC:2011(2003)].
The Industrial Chemicals (Notification and Assessment) Act 1989 (Commonwealth), including listing on the Australian Inventory of Chemical Substances (AICS).
National model Code of Practice for the Preparation of Safety Data Sheets for Hazardous Chemicals (2011).
Commission Decision 2000/532/EC as amended by Decision 2001/118/EC establishing a list of wastes and hazardous waste pursuant to Council Directive 75/442/EEC on waste and Directive 91/689/EEC on hazardous waste with amendments.

Chemical Safety Assessment

CSA status: Not relevant.

SAFETY DATA SHEET

Product name:	SPECIFIX - 20 CURING AGENT	Page:	10/10
Revision Date:	2014-05-26	Print date:	2014-05-26
Document No.:	M0074	SDS-ID:	AU-EN/16.0

SECTION 16: OTHER INFORMATION

For restrictions on use see point 15.

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

Approved by DHI.

Allan Vorup

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

Wording of R-phrases and
H-statements:

R10	Flammable.
R20/22	Harmful by inhalation and if swallowed.
R21/22	Harmful in contact with skin and if swallowed.
R34	Causes burns.
R35	Causes severe burns.
R43	May cause sensitisation by skin contact.
H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
H302/332	Harmful if swallowed or if inhaled.
H311	Toxic in contact with skin.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H332	Harmful if inhaled.
H373a	May cause damage to organs through prolonged or repeated exposure if inhaled.

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.
www.dhigroup.com.
