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

1.1. Product identifier
HistoResin Hardener

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

1.3. Details of the supplier of the safety data sheet
Company name: Leica Biosystems Nussloch GmbH
Street: Heidelberger Str. 17-19
Place: D Nussloch
Telephone: +49 (0)6224/143-0
Responsible Department: Responsible for the safety data sheet: sds@gbk-tingelheim.de

1.4. Emergency telephone number:
INTERNATIONAL: +49 - (0) 6132 - 84463, GBK GmbH (24h - 7d/w - 365d/a)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture
Classification according to Regulation (EC) No. 1272/2008 [CLP]
Hazard categories:
Skin corrosion/irritation: Skin Irrit. 2
Serious eye damage/eye irritation: Eye Irrit. 2
Hazard Statements:
Causes skin irritation.
Causes serious eye irritation.

2.2. Label elements
Signal word: Warning
Pictograms: GHS07

Hazard statements
H315 Causes skin irritation.
H319 Causes serious eye irritation.

Precautionary statements
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P337+P313 If eye irritation persists: Get medical advice/attention.

2.3. Other hazards
No data available.

SECTION 3: Composition/information on ingredients

3.2. Mixtures
Chemical characterization
-
Hazardous components

<table>
<thead>
<tr>
<th>EC No</th>
<th>Chemical name</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>217-781-0</td>
<td>5-butyl-1H,3H,5H-pyrimidine-2,4,6-trione</td>
<td>10-25 %</td>
</tr>
<tr>
<td>1953-33-9</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Classification according to Regulation (EC) No. 1272/2008 [CLP]

- Skin Irrit. 2, Eye Irrit. 2; H315 H319

Full text of R, H and EUH phrases: see section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

After inhalation
Ensure of fresh air.
If symptoms persist, call a physician.

After contact with skin
Immediately wash with water and soap and rinse thoroughly.

After contact with eyes
Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
If eye irritation persists, consult a specialist.

After ingestion
Induce vomiting immediately and call a physician.

4.2. Most important symptoms and effects, both acute and delayed
No data available.

4.3. Indication of any immediate medical attention and special treatment needed
No data available.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media
Foam, carbon dioxide (CO2), dry chemical, water-spray

5.2. Special hazards arising from the substance or mixture
The formation of toxic gases is possible during heating or in case of fire (for example: carbon monoxide and traces of incompletely burned hydrocarbons).

5.3. Advice for firefighters
No specific precautions required.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures
Not required.

6.2. Environmental precautions
No specific precautions required.

6.3. Methods and material for containment and cleaning up
Take up with absorbent material (e.g. sand, kieselguhr, acid binder, general-purpose binder, sawdust).

6.4. Reference to other sections
Observe protective instructions (see Sections 7 and 8).
Information for disposal see section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling
Advice on safe handling
Keep container tightly closed.
Safety Data Sheet according to Regulation (EC) No 1907/2006
Leica Biosystems Nussloch GmbH
Revision date: 22.07.2015
Revision No: 1,0
HistoResin Hardener
10695-0021

Advisory on protection against fire and explosion
No specific precautions required.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels
No specific precautions required.

Advice on storage compatibility
Not required.

Further information on storage conditions
Keep in a cool place.

7.3. Specific end use(s)
No data available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters
Additional advice on limit values
No data available.

8.2. Exposure controls

Protective and hygiene measures
Keep away from food, drink and animal feeding stuffs.
Remove and wash contaminated clothing before re-use.
Wash hands before breaks and at the end of workday.
Avoid contact with the skin and the eyes.

Eye/face protection
Wear eye/face protection

Hand protection
PVA gloves
Material of gloves: The selection of the suitable gloves does not only depend on the material, but also
on futher marks of quality and varies from manufacturer to manufacturer.
The exact break through time has to be found out by the manufacturer of the protective gloves.

Skin protection
Light protective clothing ..

Respiratory protection
In case of insufficient ventilation wear suitable respiratory equipment (gas filter type A) (EN 14387).

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state: Liquid
Colour: White
Odour: Odourless

Changes in the physical state

Melting point: n.d.
Initial boiling point and boiling range: 189 °C
Flash point: 95 °C
Lower explosion limits: 3,5
Vapour pressure: 2,5 hPa
(at 20 °C)
Density: 1,1 g/cm³
Water solubility: Slightly miscible
Ignition temperature: 300 °C
Explosive properties The product is considered
non-explosive; nevertheless explosive vapour/air mixture can be generated.

Viscosity / dynamic:
( at 20 °C)

\[ 200 \text{ mPa·s} \]

9.2. Other information

Solid content: \[15 \%\]

No data available.

SECTION 10: Stability and reactivity

10.1. Reactivity

No decomposition if stored and applied as directed.

10.2. Chemical stability

No data available.

10.3. Possibility of hazardous reactions

No hazardous reactions known.

10.4. Conditions to avoid

No data available.

10.5. Incompatible materials

No data available.

10.6. Hazardous decomposition products

None

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity

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

Dimethyl sulfoxide

LD50/oral/rat: 14500 mg/kg

LD50/dermal/rabbit: > 5000 mg/kg

LC50/inhalation/rat: 40250 mg/l(4h)

Irritation and corrosivity

Causes skin irritation.

Causes serious eye irritation.

Sensitising effects

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

STOT-single exposure

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

Severe effects after repeated or prolonged exposure

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

Carcinogenic/mutagenic/toxic effects for reproduction

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

Aspiration hazard

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

SECTION 12: Ecological information

12.1. Toxicity

Dimethyl sulfoxide

LC50/fish: 34000 mg/l

12.2. Persistence and degradability

No data available.

12.3. Bioaccumulative potential
No data available.

12.4. Mobility in soil
No data available.

12.5. Results of PBT and vPvB assessment
Not applicable

12.6. Other adverse effects
No data available.

Further information
Product is not allowed to discharge into the ground water or aquatic environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods
Advice on disposal
Should not be disposed of with household waste.
Do not discharge into the drains/surface waters/ground water.

Waste disposal number of waste from residues/unused products
110198  WASTES FROM CHEMICAL SURFACE TREATMENT AND COATING OF METALS AND OTHER MATERIALS; NON-FERROUS HYDRO-METALLURGY; wastes from chemical surface treatment and coating of metals and other materials (for example galvanic processes, zinc coating processes, pickling processes, etching, phosphating, alkaline degreasing, anodising); other wastes containing dangerous substances
Classified as hazardous waste.

Contaminated packaging
Waste disposal according to local regulations.

SECTION 14: Transport information

Land transport (ADR/RID); Marine transport (IMDG); Air transport (ICAO); Inland waterways transport (ADN)

14.1. UN number:
No hazardous material as defined by the transport regulations.

14.2. UN proper shipping name:
No hazardous material as defined by the transport regulations.

14.3. Transport hazard class(es):
No hazardous material as defined by the transport regulations.

14.4. Packing group:
No hazardous material as defined by the transport regulations.

14.5. Environmental hazards
No hazardous material as defined by the transport regulations.

14.6. Special precautions for user
No hazardous material as defined by the transport regulations.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code
No hazardous material as defined by the transport regulations.

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture
National regulatory information
Water contaminating class (D): 1 - slightly water contaminating

15.2. Chemical safety assessment
Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information

Changes
Changes in chapter: -
Abbreviations and acronyms

ADR = Accord européen relatif au transport international des marchandises Dangereuses par Route
RID = Règlement concernant le transport international ferroviaire de marchandises dangereuses
ADN = Accord européen relatif au transport international des marchandises dangereuses par voie de navigation intérieure
IMDG = International Maritime Code for Dangerous Goods
IATA/ICAO = International Air Transport Association / International Civil Aviation Organization
MARPOL = International Convention for the Prevention of Pollution from Ships
DOT = Department of Transportation
TDG = Transport of Dangerous Goods

GHS = Globally Harmonized System of Classification and Labelling of Chemicals
REACH = Registration, Evaluation, Authorization and Restriction of Chemicals
CAS = Chemical Abstract Service
EN = European norm
ISO = International Organization for Standardization
DIN = Deutsche Industrie Norm
PBT = Persistent Bioaccumulative and Toxic
vPvB = Very Persistent and very Bio-accumulative
LD = Lethal dose
LC = Lethal concentration
EC = Effect concentration
IC = Median immobilisation concentration or median inhibitory concentration

Relevant H- and EUH-phrases (Number and full text)
H315 Causes skin irritation.
H319 Causes serious eye irritation.

Further Information

Data of items 4 to 8, as well as 10 to 12, do partly not refer to the use and the regular employing of the product (in this sense consult information on use and on product), but to liberation of major amounts in case of accidents and irregularities.

The information describes exclusively the safety requirements for the product(s) and is based on the present level of our knowledge.

The delivery specifications are contained in the corresponding product sheet.

This data does not constitute a guarantee for the characteristics of the product(s) as defined by the legal warranty regulations.

(n.a. = not applicable; n.d. = not determined)

(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)