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

1.1 Product identifier

Trade name: H 8973 RESIN (A)

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

No further relevant information available.

Application of the substance / the mixture: Epoxy resin

1.3 Details of the supplier of the safety data sheet

Manufacturer/Supplier:
AXSON FRANCE
15 Rue de l'Equerre - F-95310 SAINT OUEN L'AUMONE
Tél.+33 (0)1 34 40 34 60

Further information obtainable from: DPT HSE - +33 (0)1 34 40 34 60 - safety@axson.com

1.4 Emergency telephone number: ORFILA : +33 (0)1 45 42 59 59

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

Skin Irrit. 2 H315 Causes skin irritation.
Eye Irrit. 2 H319 Causes serious eye irritation.
Skin Sens. 1 H317 May cause an allergic skin reaction.

Aquatic Chronic 2 H411 Toxic to aquatic life with long lasting effects.

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008

The product is classified and labelled according to the CLP regulation.

Hazard pictograms

GHS07 GHS09

Signal word Warning

Hazard-determining components of labelling:

bisphenol-F-epichlorhydrine ; epoxy resins (molecular weight \( \leq 700 \))
1,4-bis(2,3-epoxypropoxy)butane
reaction product: bisphenol A-(epichlorhydrin); epoxy resin (number average molecular weight \( \leq 700 \))

Hazard statements

H315 Causes skin irritation.
H319 Causes serious eye irritation.
H317 May cause an allergic skin reaction.
H411 Toxic to aquatic life with long lasting effects.

Precautionary statements

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P280 Wear protective gloves / eye protection / face protection.
P273 Avoid release to the environment.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P332+P313 If skin irritation occurs: Get medical advice/attention.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

(Contd. on page 2)
Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 28.03.2017
Version number 9

Trade name: H 8973 RESIN (A)

Additional information:
EUH205 Contains epoxy constituents. May produce an allergic reaction.

SECTION 3: Composition/information on ingredients

3.2 Chemical characterisation: Mixtures
Description: Mixture of substances listed below with nonhazardous additions.

Dangerous components:

<table>
<thead>
<tr>
<th>CAS:</th>
<th>Chemical name</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>28064-14-4</td>
<td>bisphenol-F-epichlorhydrine : epoxy resins (molecular weight ≤ 700)</td>
<td>25-50%</td>
</tr>
<tr>
<td>NLP: 500-006-8</td>
<td>Aquatic Chronic 2, H411; Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317</td>
<td></td>
</tr>
<tr>
<td>CAS: 2425-79-8</td>
<td>1,4-bis(2,3-epoxypropoxy)butane</td>
<td>2.5-10%</td>
</tr>
<tr>
<td>EINECS: 219-371-7</td>
<td>Acute Tox. 4, H312; Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317</td>
<td></td>
</tr>
<tr>
<td>Reg.nr.: 01-2119494060-45</td>
<td>reaction product: bisphenol A-(epichlorhydrin); epoxy resin (number average molecular weight ≤ 700)</td>
<td>2.5-10%</td>
</tr>
<tr>
<td>CAS: 16096-31-4</td>
<td>1,6-Hexanedioldiglycidyl ether</td>
<td>≤ 2.5%</td>
</tr>
<tr>
<td>EINECS: 240-260-4</td>
<td>Aquatic Chronic 2, H411; Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317</td>
<td></td>
</tr>
<tr>
<td>Reg.nr.: 01-2119463471-41</td>
<td>1,6-Hexanedioldiglycidyl ether</td>
<td></td>
</tr>
</tbody>
</table>

Additional information: For the wording of the listed hazard phrases refer to section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

After inhalation:
Supply fresh air and to be sure call for a doctor.
In case of unconsciousness place patient stably in side position for transportation.

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

After eye contact: Rinse opened eye for several minutes under running water. Then consult a doctor.

After swallowing: Do not induce vomiting; call for medical help immediately.

4.2 Most important symptoms and effects, both acute and delayed
No further relevant information available.

4.3 Indication of any immediate medical attention and special treatment needed
No further relevant information available.

SECTION 5: Firefighting measures

5.1 Extinguishing media
Suitable extinguishing agents:
CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

For safety reasons unsuitable extinguishing agents: Water with full jet

5.2 Special hazards arising from the substance or mixture
In case of fire, the following can be released:
Carbon monoxide (CO)
Under certain fire conditions, traces of other toxic gases cannot be excluded, e.g.:
Hydrogen chloride (HCl)

5.3 Advice for firefighters
Protective equipment:
Wear fully protective suit.
Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 28.03.2017  Version number 9

Trade name: H 8973 RESIN (A)

Wear self-contained respiratory protective device.

**Additional information**
Collect contaminated fire fighting water separately. It must not enter the sewage system.
Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

**SECTION 6: Accidental release measures**

**6.1 Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.

**6.2 Environmental precautions:** Do not allow to enter sewers/ surface or ground water.

**6.3 Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

**6.4 Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

**SECTION 7: Handling and storage**

**7.1 Precautions for safe handling**
Ensure good ventilation/exhaustion at the workplace.

**Information about fire - and explosion protection:**
No special measures required.

**7.2 Conditions for safe storage, including any incompatibilities**

**Storage:**
Requirements to be met by storerooms and receptacles: Prevent any seepage into the ground.
Information about storage in one common storage facility: Store away from foodstuffs.

**Further information about storage conditions:**
Store in cool, dry conditions in well sealed receptacles.

**7.3 Specific end use(s)**
No further relevant information available.

**SECTION 8: Exposure controls/personal protection**

**Additional information about design of technical facilities:**
No further data; see item 7.

**8.1 Control parameters**

**Ingredients with limit values that require monitoring at the workplace:**
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

**Additional information:**
The lists valid during the making were used as basis.

**8.2 Exposure controls**

**Personal protective equipment:**

**General protective and hygienic measures:**
The usual precautionary measures are to be adhered to when handling chemicals.
Immediately remove all soiled and contaminated clothing.
Wash hands before breaks and at the end of work.
Avoid contact with the eyes and skin.

**Protection of hands:**

Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

(Contd. on page 4)
· **Material of gloves**
  Synthetic rubber gloves
  The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material cannot be calculated in advance and has therefore to be checked prior to the application.

· **Penetration time of glove material**
  The exact breakthrough time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **Eye protection:**
  Safety glasses
  Tightly sealed goggles

· **Body protection:** Protective work clothing

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**SECTION 9: Physical and chemical properties**

- **9.1 Information on basic physical and chemical properties**
  - **General Information**
    - **Appearance:**
      - Form: Pasty
      - Colour: Blue
    - **Odour:** Weak, characteristic
  - **Change in condition**
    - Melting point/freezing point: NA °C
    - Initial boiling point and boiling range: >200 °C (DIN 53171)
  - **Flash point:** >110 °C (ISO 2719)
  - **Ignition temperature:** >300 °C (DIN 51 794)
  - **Decomposition temperature:** >200 °C (DIN 53171)
  - **Auto-ignition temperature:** Product is not selfigniting.
  - **Explosive properties:** Product does not present an explosion hazard.
  - **Density at 25 °C:** 0.8 g/cm³ (ISO 1675:1985)
  - **Solubility in / Miscibility with**
    - Water: Insoluble.
    - Organic solvents: Soluble in many organic solvents.
  - **9.2 Other information**
    - No further relevant information available.

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**SECTION 10: Stability and reactivity**

- **10.1 Reactivity:** No further relevant information available.
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions**
  May produce violent reactions with bases and numerous organic substances including alcohols and amines.
  Exothermic polymerisation.
- **10.4 Conditions to avoid**
  No further relevant information available.
**SECTION 11: Toxicological information**

- 11.1 Information on toxicological effects
- Acute toxicity Based on available data, the classification criteria are not met.

**LD/LC50 values relevant for classification:**

<table>
<thead>
<tr>
<th>Compound</th>
<th>Oral LD50</th>
<th>Dermal LD50</th>
</tr>
</thead>
<tbody>
<tr>
<td>28064-14-4 bisphenol-F-epichlorhydrine ; epoxy resins (molecular weight ≤ 700)</td>
<td>&gt;2000 mg/kg (rat)</td>
<td>&gt;2000 mg/kg (rabbit)</td>
</tr>
<tr>
<td>25068-38-6 reaction product: bisphenol A-(epichlorhydrin); epoxy resin (number average molecular weight ≤ 700)</td>
<td>11400 mg/kg (rat)</td>
<td>&gt;2000 mg/kg (rabbit)</td>
</tr>
</tbody>
</table>

- Primary irritant effect:
- Skin corrosion/irritation Causes skin irritation.
- Serious eye damage/irritation Causes serious eye irritation.
- Respiratory or skin sensitisation May cause an allergic skin reaction.
- CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)
- 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 Based on available data, the classification criteria are not met.
- 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.

**SECTION 12: Ecological information**

- 12.1 Toxicity
- Aquatic toxicity:

<table>
<thead>
<tr>
<th>Compound</th>
<th>LC50 (96h)</th>
<th>EC50 (48h)</th>
</tr>
</thead>
<tbody>
<tr>
<td>28064-14-4 bisphenol-F-epichlorhydrine ; epoxy resins (molecular weight ≤ 700)</td>
<td>5.7 mg/l (fish)</td>
<td>3.5 mg/l (daphnia)</td>
</tr>
<tr>
<td>25068-38-6 reaction product: bisphenol A-(epichlorhydrin); epoxy resin (number average molecular weight ≤ 700)</td>
<td>1.3 mg/l (fish)</td>
<td>2.1 mg/l (daphnia)</td>
</tr>
</tbody>
</table>

- 12.2 Persistence and degradability No further relevant information available.
- Other information: The product is not easily biodegradable.
- 12.3 Bioaccumulative potential No further relevant information available.
- 12.4 Mobility in soil No further relevant information available.
- Additional ecological information:
- General notes: At present there are no ecotoxicological assessments.
4.3.6 Results of PBT and vPvB assessment

- **PBT:** Not applicable.
- **vPvB:** Not applicable.

12.6 Other adverse effects No further relevant information available.

### SECTION 13: Disposal considerations

13.1 Waste treatment methods

**Recommendation**
Must not be disposed together with household garbage. Do not allow product to reach sewage system. Dispose of the product by burning in a suitable incinerator or bury in an approved landfield following all applicable local and/or national regulations.

**European waste catalogue**

- **20 01 27** paint, inks, adhesives and resins containing dangerous substances

- **Uncleaned packaging:**

  **Recommendation:**
  Empty containers may not be disposed of unless any remaining material adhering to the internal walls has been removed. Disposal must be made according to official regulations.

### SECTION 14: Transport information

14.1 UN-Number

- **ADR, IMDG, IATA**
  - UN3082

14.2 UN proper shipping name

- **ADR**
  - 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (epoxy resins)

- **IMDG**
  - ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (epoxy resins), MARINE POLLUTANT

- **IATA**
  - ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (epoxy resins)

14.3 Transport hazard class(es)

- **ADR, IMDG, IATA**
  - III

14.4 Packing group

- **ADR, IMDG, IATA**
  - III

14.5 Environmental hazards:

- **Product contains environmentally hazardous substances:**
  - triphenyl phosphite, epoxy resins
  - Yes
  - Symbol (fish and tree)

- **Special marking (ADR):**
  - Symbol (fish and tree)

- **Special marking (IATA):**
  - Symbol (fish and tree)

14.6 Special precautions for user

- **Warning:** Miscellaneous dangerous substances and articles.
- **EMS Number:** F-A,S-F

(Contd. on page 7)
Trade name: H 8973 RESIN (A)

- **Stowage Category**: A
- **14.7 Transport in bulk according to Annex II of Marpol and the IBC Code**: Not applicable.
- **Transport/Additional information:**
  - **ADR**
    - **Limited quantities (LQ)**: 5L
    - **Excepted quantities (EQ)**: Code: E1
      - Maximum net quantity per inner packaging: 30 ml
      - Maximum net quantity per outer packaging: 1000 ml
  - **IMDG**
    - **Limited quantities (LQ)**: 5L
    - **Excepted quantities (EQ)**: Code: E1
      - Maximum net quantity per inner packaging: 30 ml
      - Maximum net quantity per outer packaging: 1000 ml
  - **UN "Model Regulation"**: UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (EPOXY RESINS), 9, III

**SECTION 15: Regulatory information**

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
  - Directive 2012/18/EU
  - Named dangerous substances - ANNEX I None of the ingredients is listed.
  - Seveso category E2 Hazardous to the Aquatic Environment
  - **Qualifying quantity (tonnes) for the application of lower-tier requirements** 200 t
  - **Qualifying quantity (tonnes) for the application of upper-tier requirements** 500 t
  - **REGULATION (EC) No 1907/2006 ANNEX XVII** Conditions of restriction: 3, 52a
  - National regulations:
    - **Waterhazard class**: Water hazard class 2 (Self-assessment): hazardous for water.
  - **15.2 Chemical safety assessment**: A Chemical Safety Assessment has not been carried out.

**SECTION 16: Other information**

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Relevant phrases**
  - H312 Harmful in contact with skin.
  - H315 Causes skin irritation.
  - H317 May cause an allergic skin reaction.
  - H319 Causes serious eye irritation.
  - H332 Harmful if inhaled.
  - H411 Toxic to aquatic life with long lasting effects.
  - H412 Harmful to aquatic life with long lasting effects.
- **Abbreviations and acronyms:**
  - ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
  - IMDG: International Maritime Code for Dangerous Goods
  - IATA: International Air Transport Association
  - GHS: Globally Harmonised System of Classification and Labelling of Chemicals

(Contd. on page 8)
Trade name: H 8973 RESIN (A)

EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
Acute Tox. 4: Acute toxicity – Category 4
Skin Irrit. 2: Skin corrosion/irritation – Category 2
Eye Irrit. 2: Serious eye damage/eye irritation – Category 2
Skin Sens. 1: Skin sensitisation – Category 1
Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2
Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3
* Data compared to the previous version altered.