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

· 1.1 Product identifier
· Trade name: 726 ArmorPrime Part A
· Application of the substance/the preparation: Modified Epoxy Resin

1.3 Details of the supplier of the Safety Data Sheet
· Manufacturer/Supplier:
  Thermal-Chem Corporation
  2550 Edgington Street
  Franklin Park, IL 60131 USA
  Tel (800) 635-3773
· Emergency contact: CHEMTREC® (800) 424-9300

2 Hazards identification

· 2.1 Classification of the substance or mixture
· Classification according to Regulation (EC) No 1272/2008

  GHS07
  Acute Tox. Oral 4; H302: Harmful if swallowed.
  Tox. Dermal 4; H312: Acute Harmful in contact with skin
  Skin Irritation 2; H315: Causes skin irritation
  Skin Sensitizing 1; H317: May cause an allergic skin reaction
  Eye Irritation 2; H319: Causes serious eye irritation
  Acute Tox. Inhalation 4; H332: Harmful if inhaled

· Classification according to Directive 67/548/EEC or Directive 1999/45/EC
  Xn; Harmful
  R22-62-63: Harmful if swallowed. Possible risk of impaired fertility.
  R20 Harmful by inhalation

  Xi; Sensitizing
  R43: May cause sensitization by skin contact.

· 2.2 Label elements
· Labeling according to Regulation (EC) No 1272/2008
· Hazard pictograms

  GHS07  GHS08

· Signal word: Danger

(Cont. on page 2)
Hazard-determining components of labeling:
Benzylalcohol
Bisphenol A, Epichlorohydrin resin

Hazard statements
H302: Harmful if swallowed
H312: Harmful if contact with skin
H315: Causes skin irritation
H317: May cause an allergic skin reaction.
H319: Causes serious eye irritation
H332: Harmful if inhaled

Precautionary statements
P261: Avoid breathing dust/fume/gas/mist/vapors/spray.
P264: Wash thoroughly after handling
P270: Do not eat drink or smoke while using this product
P271: Use only outdoors or in a well ventilated area
P272: Contaminated work clothing should not be allowed out of the workplace. P280: Wear protective gloves/protective clothing/eye protection/face protection.
P301 + P312: If SWALLOWED: Call POISON CENTER/Doctor/Physician if you feel unwell
P302 + P352: If ON SKIN: Wash with plenty of water
P304 + P340: If INHALED: Remove person to fresh air and keep comfortable for breathing
P305 + P351 + P338: If IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present
P321: Specific treatment (see first aid section on label)
P330: Rinse mouth
P320 + P313: If skin irritation or rash occurs, get medical advice/attention
P337 + P313: If eye irritation persists, get medical advice/attention
P361 + P364: Take off immediately all contaminated clothing and wash before reuse
P501: Dispose of contents/container in accordance with local/regional/national/international regulations

HMIS-ratings (scale 0-4)
- HEALTH: 2
- FIRE: 1
- REACTIVITY: 0

NFPA ratings (scale 0-4)
- HEALTH: 2
- FIRE: 1
- REACTIVITY: 0

2.3 Other hazards
Results of PBT and vPvB assessment
- PBT: Not applicable.
- vPvB: Not applicable.
3 Composition/information on ingredients

3.2 Mixtures

Description: Mixture of substances listed below with nonhazardous additions.

Dangerous components:

Benzylic alcohol
CAS: 100-51-6
XnR20/22
Acute Tox. 4, H302; Acute Tox. 4, H332
8-20%

BisphenolA, Epichlorohydrin resin
CAS: 80-05-7
XnR62; XI R37-41; XI R43/R52
Repr. Cat. 3
80-90%
Repr. 2, H361f
Eye Dam. 1, H318
Skin Sens. 1, H317; STOT SE 3, H335

4 First aid measures

4.1 Description of first aid measures

General information:
Immediately remove any clothing soiled by the product.
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

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

After skin contact:
Immediately wash with water and soap and rinse thoroughly. If skin irritation continues, consult a doctor.

After inhalation:
Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.
In case of unconsciousness place patient stably in side position for transportation.

After swallowing:
Rinse out mouth and then drink plenty of water.
Do not induce vomiting; call for medical help immediately.

(Cont. on page 4)
Trade name: 726 ArmorPrime Part A

4.2 Most important symptoms and effects, both acute and delayed
- Allergic reactions
- Nausea
- Dizziness
- Breathing difficulty

Hazard: Danger of impaired breathing.

4.3 Indication of any immediate medical attention and special treatment needed
- Treat skin and mucous membrane with antihistamine and corticoid preparations. Monitor circulation.

5 Firefighting measures

5.1 Extinguishing media
- Suitable extinguishing agents: Carbon Dioxide, Dry Chemical, Foam

5.2 Special hazards arising from the substance or mixture: Empty containers retain product residue (liquid and/or vapor) and can be dangerous. DO NOT pressurize, cut weld, drill, grind or expose such containers to heat, flame, sparks, static electricity or other sources of ignition. Also do not reuse container without commercial cleaning or reconditioning.

5.3 Advice for firefighters
- Protective equipment:
  - Wear self-contained respiratory protective device. Wear fully protective suit.
- Additional information: Cool endangered receptacles with water spray. Waterspray and foam must be applied with caution to avoid frothing.

6 Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
- Remove persons from danger area.
- Use respiratory protective device against the effects of fumes/dust/aerosol.
- Wear protective equipment. Keep unprotected persons away.
- Ensure adequate ventilation. Stay upwind of spill.

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, non-combustible material (sand, diatomite, acid binders, universal binders, sawdust). Dispose contaminated material as waste according to item 13.
- Clean the affected area carefully. Suitable cleaners are:
  - Warm water and cleansing agent.

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.

(Cont. on page 5)
7 Handling and storage

- **7.1 Precautions for safe handling**
  Ensure good ventilation/exhaustion at the workplace. Avoid contact with eyes, skin and clothing. Follow all SDS/label precautions, even after containers are emptied as they may retain product residues. Prevent formation of aerosols.
  - **Information about fire- and explosion protection:** No special measures required.

- **7.2 Conditions for safe storage, including any incompatibilities**
  **Storage:**
  - Keep away from heat, sparks and flame. Store containers in a cool, well ventilated place. Keep container closed when not in use. Partially filled drums should be blanketed with nitrogen to avoid product being slowly oxidized to benzaldehyde.
  - **7.3 Specific end use(s)**: No further relevant information available.

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:**
<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIHTLV-TWA</th>
<th>ACGIHTLV STEL</th>
<th>OSHAPEL-TWA</th>
<th>OSHAPEL-CEILING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benzyl alcohol</td>
<td>ND</td>
<td>ND</td>
<td>ND</td>
<td>ND</td>
</tr>
<tr>
<td>Bisphenol A</td>
<td>ND</td>
<td>ND</td>
<td>ND</td>
<td>ND</td>
</tr>
</tbody>
</table>

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

**Exposure controls**

- **Personal protective equipment:**
  - **General protective and hygienic measures:** Keep away from foodstuffs and feed. Immediately remove all soiled clothing. Wash hands before breaks and at the end of work. Avoid contact with the eyes and skin.

- **Respiratory protection:**
  Use suitable respiratory protective device in case of insufficient ventilation. Use suitable respiratory protective device when aerosol or mist is formed.

- **Protection of hands:**
  - **Protective gloves:**
    The glove material has to be impermeable and resistant to the product/substance/preparation. Due to missing tests no recommendation to the glove material can be given for the product/preparation/chemical mixture. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation.

(Cont. on page 6)
Material of gloves
Butyl rubber, BR

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 break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

Eye protection:
Safety glasses Goggles recommended during refilling

Body protection: Protective work clothing

9 Physical and chemical properties

· General Information
· Appearance: Viscous
· Form: Liquid
· Odor: Typical
· Density g/cm³: 1.05 - 1.17
· Change in condition
· Boiling point/Boiling range: 390-401°F
· Freeze Point, °F: Not Determined
· Solubility/Miscibility with water: Negligible
· Evaporation rate: 1.18
· Vapor Density: 3.17 (air=1)
· Vapor pressure: <1
· pH-value: Not Determined
· Viscosity:
  Dynamic: Not Determined
  Kinematic: Not Determined
· Explosion limits:
  Lower: Not Determined
  Upper: Not Determined

(Cont. on page 7)
10 Stability and reactivity

10.1 Reactivity
10.2 Chemical stability: No information
10.3 Conditions to avoid: Avoid excess heat and sources of ignition
10.4 Incompatible materials: Avoid contact with moisture and/or water. Prevent contact with halogens. Prevent contact with strong oxidizing agents. Keep away from acids
10.5 Hazardous decomposition products: During combustion carbon monoxide may be formed.
10.6 Hazardous polymerization products: Will not occur by itself. Uncontrolled conditions with amines will cause irreversible

11 Toxicological information

11.1 Information on toxicological effects
Acute toxicity: The acute effects of this product have not been tested. Data on individual components are tabulated below
LD/LC50 values relevant for classification:
CAS-No. Name according to EEC Oral D50, mg/kg Dermall D50, mg/kg
25068-38-6 Bisphenol A, Epichlorhydrinresin >1,000 >1,600
100-51-6 Benzyl alcohol 1230.0 2000.0

Primary Route(s) of Entry: Eye Contact, Ingestion, Skin Contact
Effects of overexposure - INHALATION: May be irritating to the respiratory system.
Effects of overexposure - SKIN CONTACT: Causes skin irritation. May cause skin sensitization, an allergic reaction, which becomes evident on re-exposure to this material. Harmful if absorbed through skin.

(Cont. on page 8)
Effects of overexposure - EYE CONTACT: Causes serious irritation to eyes. Symptoms may include stinging, tearing, redness and swelling.

Effects of overexposure - INGESTION: Harmful if swallowed. Ingestion may cause gastrointestinal tract irritation.

Effects of overexposure CHRONIC HAZARDS: No Information

12 Ecological information

ECOLOGICAL INFORMATION: No Information

13 Disposal considerations

13.1 Wastetreatment methods

Always dispose of any waste in accordance with all local, state, and federal regulations.

Disposal method: Dispose of waste in accordance with all local, state and federal regulations.

Steps to be taken in case material is released or spilled: Wear appropriate personal protective equipment. (See Exposure Controls / Personal Protection Section.) Eliminate all ignition sources. Prevent additional discharge of material if able to do so safely. Do not touch or walk through spilled material. Avoid runoff into storm sewers and ditches which lead to waterways. Ventilate spill area. Stay upwind of spill. Collect spilled materials for disposal. Use only non-combustible material for clean-up. Absorb spill with inert material (e.g. dry sand or earth), then place in a chemical waste container.
14 Transport information

- 14.1 UN-Number
  DOT, ADR, IMDG, IATA: Not Regulated
  14.2 UN proper shipping name: No Information
- 14.3 Transport hazard class(es): No Information
- 14.4 Packing group: No Information
- 14.5 Environmental hazards: No Information

15 Regulatory information

- 15.1 Safety, health and environmental regulations/legislations specific for the substance or mixture
  United States (USA)
  SARA
  This product has been reviewed according to the EPA ‘Hazard Categories’ promulgated under Sections 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and is considered under, applicable definitions, to meet the following categories
  Acute Health Hazard Fire Hazard
  Acute Health Hazard

  Section 313 (Specific toxic chemical listings): This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendment and Reauthorization Act of 1986 and 40 CFR part 372:
  No SARA 313 components exist in this product.

  TSCA (Toxic Substances Control Act): This product contains the following chemical substances subject to the reporting requirements of TSCA 12(B) if exported from the United States:
  No TSCA components exist in this product.

  U.S. State Regulations:
  NEW JERSEY RIGHT-TO-KNOW:
  The following materials are non-hazardous, but are among the top five components in this product.
  No NJ Right-To-Know components exist in this product.

  PENNSYLVANIA RIGHT-TO-KNOW:
  The following non-hazardous ingredients are present in the product at or greater than 3%.
  No PA Right-To-Know components exist in this product.
· **CALIFORNIA RIGHT-TO-KNOW**
  Warning: The following ingredients present in the product are known to the state of California to cause Cancer:
  No Proposition 65 Carcinogens exist in this product.

· **CALIFORNIA PROPOSITION 65 REPRODUCTIVE TOXINS**
  Warning: The following ingredients present in the product are known to the state of California to cause birth defects, or other reproductive hazards.
  No Proposition 65 Reproductive Toxins exist in this product.

· **International Regulations: As follows -**
  · **CANADIAN WHMIS:**
    This MSDS has been prepared in compliance with Controlled Product Regulations except for the use of the 16 headings.
    **WHMIS Class:** No Information

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**16 Other information**

· **Volatile Organic Compounds, gr/ltr:** < 60
  DISCLAIMER: THE VOLATILE ORGANIC COMPOUND (VOC) CONTENT REPORTED HEREIN, IF ANY, IS BASED ON A MATERIAL VOC CALCULATION. NOTE THAT SEVERAL METHODS ARE USED FOR CALCULATING VOC CONTENT AND THAT STANDARDS/REQUIREMENTS REGARDING VOC CONTENT VARY BY LOCATION/JURISDICTION. ACCORDINGLY, THERMAL-CHEM CORPORATION, INC. MAKES NO REPRESENTATIONS OR WARRANTIES, EXPRESS OR IMPLIED, REGARDING THIS MATERIAL'S COMPLIANCE WITH VOC STANDARDS/REQUIREMENTS APPLICABLE IN LOCATIONS/JURISDICTIONS WHERE THIS MATERIAL MAY BE SOLD OR USED.

· **Text for GHS Hazard Statements shown Section 3 describing each ingredient:**
  
  - H302 Harmful if swallowed.
  - H312 Harmful in contact with skin
  - H315 Causes skin irritation.
  - H317 May cause an allergic skin reaction.
  - H319 Causes serious eye irritation.
  - H332 Irritation. Harmful if inhaled.

· **Icons for GHS Pictograms shown in Section 3 describing each ingredient:** GHS07
<table>
<thead>
<tr>
<th>Trade name: 726 ArmorPrime Part A</th>
<th>(Cont. from page 10)</th>
</tr>
</thead>
</table>

The information contained herein is based on data considered accurate. However, no warranty is expressed or implied regarding the accuracy of these data or the results to be obtained from the use thereof.

Vendor assumes no responsibility for injury to vendee or third persons proximately caused by the material if reasonable safety procedures are not adhered to as stipulated in the data sheet. Additionally, vendor assumes no responsibility for injury to vendee or third persons proximately caused by abnormal use of the material even if reasonable safety procedures are followed. Furthermore, vendee assumes the risk of his use of the material for either Component A and/or B or the combination of both components.

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

1.1 Product identifier

Trade name: **726 ArmorPrime Part B**

Application of the substance / the preparation: Epoxy curing agent

1.3 Details of the supplier of the Safety Data Sheet

Manufacturer/Supplier:
Thermal-Chem Corporation
2550 Edgington Street
Franklin Park, IL 60131 USA
Tel (800) 635-3773

Emergency contact: CHEMTREC® (800) 424-9300

2 Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

- GHS08 health hazard
  - Repr. 2; H361fd: Suspected of damaging fertility. Suspected of damaging the unborn child.

- GHS05 corrosion
  - Skin Corr. 1B; H314: Causes severe skin burns and eye damage.

- GHS09 environment
  - Aquatic Chronic 2; H411: Toxic to aquatic life with long lasting effects.

- GHS07
  - Acute Tox. 4; H332: Harmful if inhaled.
  - Skin Sens. 1; H317: May cause an allergic skin reaction.

Classification according to Directive 67/548/EEC or Directive 1999/45/EC

- C; Corrosive
  - R34: Causes burns.

- Xn; Harmful
  - R22-62-63: Harmful if swallowed. Possible risk of impaired fertility. Possible risk of harm to the unborn child.

(Contd. on page 2)
Trade name: 726 ArmorPrime  Part B

Xi; Sensitizing
R43: May cause sensitization by skin contact.

N; Dangerous for the environment
R51/53: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Information concerning particular hazards for human and environment:
The product has to be labeled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

Classification system:
The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

2.2 Label elements
Labeling according to Regulation (EC) No 1272/2008
The product is classified and labeled according to the CLP regulation.

Hazard pictograms

GHS05 GHS07 GHS08 GHS09

Signal word Danger

Hazard-determining components of labeling:
Polyamido Amine
m-phenylenebis(methylamine)
nonylphenol
Benzyl alcohol

Hazard statements
H332: Harmful if inhaled.
H314: Causes severe skin burns and eye damage.
H317: May cause an allergic skin reaction.
H361fd: Suspected of damaging fertility. Suspected of damaging the unborn child.
H411: Toxic to aquatic life with long lasting effects.
Contains Polyamido Amine, 3,6,9-triazaundecamethylenediamine, bisphenol A, 2-piperazin-1- ylthylamine.
May produce an allergic reaction.

Precautionary statements
P260: Do not breathe dust/fume/gas/mist/vapours/spray.
P261: Avoid breathing dust/fume/gas/mist/vapours/spray.
P280: Wear protective gloves/protective clothing/eye protection/face protection.
P281: Use personal protective equipment as required.
P273: Avoid release to the environment.
P264: Wash thoroughly after handling.
P271: Use only outdoors or in a well-ventilated area.
P272: Contaminated work clothing should not be allowed out of the workplace.
P201: Obtain special instructions before use.
Trade name: 726 ArmorPrime  Part B

P202: Do not handle until all safety precautions have been read and understood.
P302+P352: IF ON SKIN: Wash with plenty of soap and water.
P304+P340: Wash contaminated clothing before reuse.
P308+P313: IF exposed or concerned: Get medical advice/attention.
P333+P313: If skin irritation or rash occurs: Get medical advice/attention.
P301+P330+P331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P302+P352: IF ON SKIN: Wash with plenty of soap and water.
P391: Collect spillage.
P405: Store locked up.
P501: Dispose of contents/container in accordance with local/regional/national/international regulations.

- **Hazard description:**
- **WHMIS-symbols:**
  D2A - Very toxic material causing other toxic effects
  E - Corrosive material

- **NFPA ratings (scale 0 - 4)**
  ![NFPA Ratings]
  - Health = 3
  - Fire = 1
  - Reactivity = 0

- **HMIS-ratings (scale 0 - 4)**
  ![HMIS-Ratings]
  - Health = *3
  - Fire = 1
  - Reactivity = 0

- **2.3 Other hazards**
- **Results of PBT and vPvB assessment**
  - PBT: Not applicable.
  - vPvB: Not applicable.

**3 Composition/information on ingredients**

- **3.2 Mixtures**
- **Description:** Mixture of substances listed below with nonhazardous additions.
### Safety Data Sheet

#### Trade name: 726 ArmorPrime Part B

<table>
<thead>
<tr>
<th>CAS</th>
<th>Name</th>
<th>Concentration</th>
<th>Health Hazards</th>
</tr>
</thead>
<tbody>
<tr>
<td>68953-36-6</td>
<td>Polyamido Amine</td>
<td>&gt; 25%</td>
<td>Skin Sens. 1, H317</td>
</tr>
<tr>
<td>1477-55-0</td>
<td>m-phenylenebis(methylamine)</td>
<td>10-25%</td>
<td>Skin Corr. 1B, H314; Acute Tox. 4, H302; Acute Tox. 4, H332</td>
</tr>
<tr>
<td>25154-52-3</td>
<td>nonylphenol</td>
<td>&lt; 10%</td>
<td>Rep. 2, H361fd; Skin Corr. 1B, H314; Aquatic Acute 1, H400; Aquatic Chronic 1, H410; Acute Tox. 4, H302</td>
</tr>
<tr>
<td>100-51-6</td>
<td>Benzyl alcohol</td>
<td>&lt; 10%</td>
<td>Acute Tox. 4, H302; Acute Tox. 4, H332</td>
</tr>
<tr>
<td>112-57-2</td>
<td>3,6,9-triazaunadecamethylenediamine</td>
<td>&lt; 10%</td>
<td>Skin Corr. 1B, H314; Aquatic Chronic 2, H411; Acute Tox. 4, H302; Acute Tox. 4, H312; Skin Sens. 1, H317</td>
</tr>
<tr>
<td>80-05-7</td>
<td>bisphenol A</td>
<td>&lt; 10%</td>
<td>Rep. 2, H361f; Eye Dam. 1, H318; Skin Sens. 1, H317; STOT SE 3, H335</td>
</tr>
<tr>
<td>9046-10-0</td>
<td>Polyetheramine</td>
<td>&lt; 10%</td>
<td>Skin Corr. 1B, H314; Acute Tox. 4, H302; Acute Tox. 4, H312; Aquatic Chronic 3, H412</td>
</tr>
<tr>
<td>140-31-8</td>
<td>2-piperazin-1-ylethylamine</td>
<td>&lt; 10%</td>
<td>Skin Corr. 1B, H314; Acute Tox. 4, H302; Acute Tox. 4, H312; Skin Sens. 1, H317; Aquatic Chronic 3, H412</td>
</tr>
</tbody>
</table>

(Cont. on page 5)
Trade name: 726 ArmorPrime  Part B

<table>
<thead>
<tr>
<th>CAS:</th>
<th>Substance</th>
<th>Substance with a Community workplace exposure limit</th>
</tr>
</thead>
<tbody>
<tr>
<td>102-71-6</td>
<td>2,2',2''-nitrilotriethanol</td>
<td>&lt; 10%</td>
</tr>
<tr>
<td>98-54-4</td>
<td>4-tert-butylphenol</td>
<td>&lt; 10%</td>
</tr>
<tr>
<td>90-72-2</td>
<td>2,4,6-tris(dimethylaminomethyl)phenol</td>
<td>Xn R22; Xi R36/38; Skin Irrit. 2, H315; Eye Irrit. 2, H319; STOT SE 3, H335</td>
</tr>
</tbody>
</table>

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

### 4 First aid measures

- **4.1 Description of first aid measures**
  - **General information:**
    Immediately remove any clothing soiled by the product. Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
  - **After inhalation:**
    Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.
    In case of unconsciousness place patient stably in side position for transportation.
  - **After skin contact:**
    Immediately wash with water and soap and rinse thoroughly.
    If skin irritation continues, consult a doctor.
  - **After eye contact:**
    Remove contact lenses if worn.
    Rinse opened eye for several minutes under running water. Then consult a doctor.
  - **After swallowing:**
    Rinse out mouth and then drink plenty of water.
    Do not induce vomiting; call for medical help immediately.

- **4.2 Most important symptoms and effects, both acute and delayed**
  - Allergic reactions
  - Nausea
  - Dizziness
  - Breathing difficulty

- **Hazards** Danger of impaired breathing.

- **4.3 Indication of any immediate medical attention and special treatment needed**
  - Treat skin and mucous membrane with antihistamine and corticoid preparations.
  - Monitor circulation.

### 5 Firefighting measures

- **5.1 Extinguishing media**
  - **Suitable extinguishing agents:** Use fire extinguishing methods suitable to surrounding conditions.
Trade name: 726 ArmorPrime  Part B

### 5.2 Special hazards arising from the substance or mixture
Formation of toxic gases is possible during heating or in case of fire.

### 5.3 Advice for firefighters
- **Protective equipment:**
  - Wear self-contained respiratory protective device.
  - Wear fully protective suit.
- **Additional information** Cool endangered receptacles with water spray.

### 6 Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**
  - Remove persons from danger area.
  - Use respiratory protective device against the effects of fumes/dust/aerosol.
  - Wear protective equipment. Keep unprotected persons away.
  - Ensure adequate ventilation
- **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).
  - Dispose contaminated material as waste according to item 13.
  - Clean the affected area carefully; suitable cleaners are:
    - Warm water and cleansing agent
- **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.

### 7 Handling and storage

- **7.1 Precautions for safe handling**
  - Ensure good ventilation/exhaustion at the workplace.
  - Prevent formation of aerosols.
- **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:** No special requirements.
    - **Information about storage in one common storage facility:**
      - Store away from oxidizing agents.
      - Store away from foodstuffs.
      - Do not store together with acids.
    - **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.
8 Exposure controls/personal protection

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

- 8.1 Control parameters

| Trade name: 726 ArmorPrime Part B |

(Cont. from page 6)

| 1477-55-0 m-phenylenebis(methylamine) |
| REL (USA) | Short-term value: C 0,1 mg/m³ |
| TLV (USA) | Short-term value: C 0,1 mg/m³ |
| EL (Canada) | Short-term value: C 0,1 mg/m³ |
| EV (Canada) | Skin |

| 100-51-6 Benzyl alcohol |
| WEEL (USA) | 10 ppm |

| 112-57-2 3,6,9-triazaundecamethylenediamine |
| WEEL (USA) | 5 mg/m³ |
| Skin; DSEN |

| 102-71-6 2,2′,2″-nitrilotriethanol |
| TLV (USA) | 5 mg/m³ |
| EL (Canada) | 5 mg/m³ |
| EV (Canada) | 3,1 mg/m³, 0,5 ppm |

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

- 8.2 Exposure controls

- Personal protective equipment:
  - General protective and hygienic measures: Keep away from foodstuffs, beverages and feed. Immediately remove all soiled and contaminated clothing Wash hands before breaks and at the end of work. Avoid contact with the eyes and skin.

- Respiratory protection: Use suitable respiratory protective device in case of insufficient ventilation. Use suitable respiratory protective device when aerosol or mist is formed.

- Protection of hands:

![Protective gloves](image)

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

(Cont. on page 8)
Trade name: 726 ArmorPrime Part B

- Material of gloves
  Butyl rubber, BR
  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 break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- Eye protection:
  Safety glasses
  Goggles recommended during refilling
- Body protection: Protective work clothing

9 Physical and chemical properties

9.1 Information on basic physical and chemical properties
- General Information
- Appearance:
  Form: Liquid
  Colour: Amber colored
  Odour: Ammonia-like
  Odour threshold: Not determined.
  pH-value: Not determined.
- Change in condition
  Melting point/Melting range: Undetermined.
  Boiling point/Boiling range: > 200°C (> 392 °F)
- Flash point: 195°C (383 °F)
- Flammability (solid, gaseous): Not applicable.
- Ignition temperature: 370°C (698 °F)
- Decomposition temperature: Not determined.
- Self-igniting: Product is not self igniting.
- Danger of explosion: Product does not present an explosion hazard.
- Explosion limits:
  Lower: Not determined.
  Upper: Not determined.
- Vapour pressure: Not determined.
- Density at 20°C: 0,98 g/cm³
Trade name: 726 ArmorPrime Part B

- Relative density: Not determined.
- Vapour density: Not determined.
- Evaporation rate: Not determined.

- Solubility in / Miscibility with water: Not miscible or difficult to mix.
- Partition coefficient (n-octanol/water): Not determined.
- Viscosity:
  - Dynamic: Not determined.
  - Kinematic: Not determined.

9.2 Other information: No further relevant information available.

10 Stability and reactivity

10.1 Reactivity
10.2 Chemical stability
10.3 Possibility of hazardous reactions
  - Toxic fumes may be released if heated above the decomposition point.
  - Strong exothermic reaction with acids.
  - Exothermic polymerization.

10.4 Conditions to avoid: No further relevant information available.
10.5 Incompatible materials: No further relevant information available.
10.6 Hazardous decomposition products:
  - Nitrogen oxides (NOx)
  - Ammonia
  - Carbon monoxide and carbon dioxide

11 Toxicological information

11.1 Information on toxicological effects
11.2 Acute toxicity:

<table>
<thead>
<tr>
<th>Compound</th>
<th>LD50 (mg/kg)</th>
<th>LC50 (mg/l)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1477-55-0 m-phenylenebis(methylamine)</td>
<td>1040</td>
<td>2.4</td>
</tr>
<tr>
<td>Oral LD50</td>
<td>1040 mg/kg (rat)</td>
<td></td>
</tr>
<tr>
<td>Inhalative LC50/4 h</td>
<td>2.4 mg/l (rat)</td>
<td></td>
</tr>
<tr>
<td>25154-52-3 nonylphenol</td>
<td>1620</td>
<td></td>
</tr>
<tr>
<td>Oral LD50</td>
<td>1620 mg/kg (rat)</td>
<td></td>
</tr>
<tr>
<td>112-57-2 3,6,9-triazaundecamethylene diamine</td>
<td>660</td>
<td></td>
</tr>
<tr>
<td>Dermal LD50</td>
<td>660 mg/kg (rabbit)</td>
<td></td>
</tr>
</tbody>
</table>
Primary irritant effect:
- on the skin: Caustic effect on skin and mucous membranes.
- on the eye: Strong caustic effect.

Sensitization:
Sensitization possible through skin contact.
Sensitizing effect through inhalation is possible by prolonged exposure.

Additional toxicological information:
The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:
Harmful
Corrosive
Irritant
Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.

12 Ecological information

12.1 Toxicity
- Aquatic toxicity: The material is harmful to the environment.

12.2 Persistence and degradability
The product is partly biodegradable. Significant residuals remain.

12.3 Bioaccumulative potential
Due to the distribution coefficient n-octanol/water an accumulation in organisms is possible.

12.4 Mobility in soil
No further relevant information available.

Ecotoxical effects:
- Remark: Toxic for fish

Additional ecological information:
- General notes:
This statement was deduced from the properties of the single components.
Water hazard class 3 (German Regulation) (Self-assessment): extremely hazardous for water
Do not allow product to reach ground water, water course or sewage system, even in small quantities.
Also poisonous for fish and plankton in water bodies.
Toxic for aquatic organisms

12.5 Results of PBT and vPvB assessment
- PBT: Not applicable.
- vPvB: Not applicable.

12.6 Other adverse effects
No further relevant information available.
13 Disposal considerations

- 13.1 Waste treatment methods
  - Recommendation
    Can be burned with household garbage after consulting with the waste disposal facility operator and the pertinent authorities and adhering to the necessary technical regulations.
    Can be disposed of with household garbage after solidification following consultation with the waste disposal facility operator and the pertinent authorities and adhering to the necessary technical regulations.
  - Uncleaned packaging:
    - Recommendation: Disposal must be made according to official regulations.

14 Transport information

- 14.1 UN-Number
  - DOT, ADR, IMDG, IATA: UN1760
- 14.2 UN proper shipping name
  - DOT, IATA: Corrosive Liquid, N.O.S. (m-phenylenebis(methylamine), nonylphenol)
  - ADR: 1760 Corrosive Liquid, N.O.S. (m-phenylenebis(methylamine), nonylphenol), Environmentally Hazardous
  - IMDG: Corrosive Liquid, N.O.S. (m-phenylenebis(methylamine), nonylphenol), Marine Pollutant
- 14.3 Transport hazard class(es)
  - DOT
    - Class: 8 Corrosive substances.
    - Label: 8
  - ADR
    - Class: 8 (C9) Corrosive substances.
### Safety Data Sheet

**Trade name:** 726 ArmorPrime Part B

<table>
<thead>
<tr>
<th>· Label</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td>· IMDG</td>
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<tr>
<td>![IMDG symbol]</td>
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<tr>
<td>· Class</td>
<td>8 Corrosive substances.</td>
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<tr>
<td>· Label</td>
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<tr>
<td>· IATA</td>
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<td>![IATA symbol]</td>
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<tr>
<td>· Class</td>
<td>8 Corrosive substances.</td>
</tr>
<tr>
<td>· Label</td>
<td>8</td>
</tr>
<tr>
<td>· 14.4 Packing group</td>
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</tr>
<tr>
<td>· DOT, ADR, IMDG, IATA</td>
<td>II</td>
</tr>
<tr>
<td>· 14.5 Environmental hazards:</td>
<td>Product contains environmentally hazardous substances: nonylphenol</td>
</tr>
<tr>
<td>· Marine pollutant:</td>
<td>Yes</td>
</tr>
<tr>
<td>· Special marking (ADR):</td>
<td>Symbol (fish and tree)</td>
</tr>
<tr>
<td>· 14.6 Special precautions for user</td>
<td>Warning: Corrosive substances.</td>
</tr>
<tr>
<td>· Danger code (Kemler):</td>
<td>80</td>
</tr>
<tr>
<td>· EMS Number:</td>
<td>F-A,S-B</td>
</tr>
<tr>
<td>· Segregation groups</td>
<td>Alkalis</td>
</tr>
<tr>
<td>· 14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>· Transport/Additional information:</td>
<td></td>
</tr>
<tr>
<td>· ADR</td>
<td></td>
</tr>
<tr>
<td>· Tunnel restriction code</td>
<td>E</td>
</tr>
<tr>
<td>· UN &quot;Model Regulation&quot;:</td>
<td>UN1760, Corrosive Liquid, N.O.S. (m-phenylenedibis(methyamine), nonylphenol), Environmentally Hazardous, 8, II</td>
</tr>
</tbody>
</table>

(Cont. from page 11)
# 15 Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
  - **United States (USA)**
  - **SARA**
    - **Section 355 (extremely hazardous substances):**
      None of the ingredients is listed.
    - **Section 313 (Specific toxic chemical listings):**
      80-05-7 | bisphenol A
    - **TSCA (Toxic Substances Control Act):**
      All ingredients are listed.
    - **Proposition 65 (California):**
      - **Chemicals known to cause cancer:**
        None of the ingredients is listed.
      - **Chemicals known to cause reproductive toxicity for females:**
        None of the ingredients is listed.
      - **Chemicals known to cause reproductive toxicity for males:**
        None of the ingredients is listed.
      - **Chemicals known to cause developmental toxicity:**
        None of the ingredients is listed.
    - **Carcinogenic Categories**
      - **EPA (Environmental Protection Agency)**
        None of the ingredients is listed.
      - **TLV (Threshold Limit Value established by ACGIH)**
        None of the ingredients is listed.
      - **NIOSH-Ca (National Institute for Occupational Safety and Health)**
        None of the ingredients is listed.
      - **OSHA-Ca (Occupational Safety & Health Administration)**
        None of the ingredients is listed.
    - **Canada**
      - **Canadian Domestic Substances List (DSL)**
        All ingredients are listed.
      - **Canadian Ingredient Disclosure list (limit 0.1%)**
        None of the ingredients is listed.
      - **Canadian Ingredient Disclosure list (limit 1%)**
        1477-55-0 | m-phenylenebis(methylamine)
        25154-52-3 | nonylphenol
        100-51-6 | Benzyl alcohol
        112-57-2 | 3,6,9-triazaundecamethylenediamine
Trade name: 726 ArmorPrime Part B

<table>
<thead>
<tr>
<th>Code</th>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>80-05-7</td>
<td>bisphenol A</td>
</tr>
<tr>
<td>140-31-8</td>
<td>2-piperazin-1-ylethylamine</td>
</tr>
<tr>
<td>102-71-6</td>
<td>2,2',2''-nitrilotriethanol</td>
</tr>
<tr>
<td>98-54-4</td>
<td>4-tert-butylphenol</td>
</tr>
</tbody>
</table>

15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

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
  - H302: Harmful if swallowed.
  - H312: Harmful in contact with skin.
  - H314: Causes severe skin burns and eye damage.
  - H315: Causes skin irritation.
  - H317: May cause an allergic skin reaction.
  - H318: Causes serious eye damage.
  - H319: Causes serious eye irritation.
  - H332: Harmful if inhaled.
  - H335: May cause respiratory irritation.
  - H361f: Suspected of damaging fertility.
  - H361fd: Suspected of damaging fertility. Suspected of damaging the unborn child.
  - H400: Very toxic to aquatic life.
  - H410: Very toxic to aquatic life with long lasting effects.
  - H411: Toxic to aquatic life with long lasting effects.
  - H412: Harmful to aquatic life with long lasting effects.
  - R20/22: Harmful by inhalation and if swallowed.
  - R21/22: Harmful in contact with skin and if swallowed.
  - R22: Harmful if swallowed.
  - R34: Causes burns.
  - R36/37/38: Irritating to eyes, respiratory system and skin.
  - R36/38: Irritating to eyes and skin.
  - R37: Irritating to respiratory system.
  - R41: Risk of serious damage to eyes.
  - R43: May cause sensitization by skin contact.
  - R50/53: Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
  - R51/53: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
  - R52: Harmful to aquatic organisms.
  - R52/53: Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
  - R62: Possible risk of impaired fertility.
  - R63: Possible risk of harm to the unborn child.

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)
The information contained herein is based on data considered accurate. However, no warranty is expressed or implied regarding the accuracy of these data or the results to be obtained from the use thereof.

Vendor assumes no responsibility for injury to vendee or third persons proximately caused by the material if reasonable safety procedures are not adhered to as stipulated in the data sheet. Additionally, vendor assumes no responsibility for injury to vendee or third persons proximately caused by abnormal use of the material even if reasonable safety procedures are followed. Furthermore, vendee assumes the risk of his use of the material for either Component A and/or B or the combination of both components.