



## MATERIAL SAFETY DATA SHEET

AXSON® NORTH AMERICA, Inc.  
1611 Hults Drive, Eaton Rapids, MI 48827 - U.S.A. Tel. (517) 663-8191

Emergency Phone: 1-800-424-9300

8/21/1900

### 1- COMMERCIAL NAME : Akabond 631PT - Clear Penetrating Epoxy Component A - RESIN

### 2- COMPOSITION/INFORMATION ON INGREDIENTS :

CHEMICAL NAME	CAS NUMBER	QUANTITY <i>in %</i>
1. Bisphenol F Epoxy Resin	28064-14-4	>50
2. Orthocresyl Glycidyl Ether	2210-79-9	10-20
3. N/A	N/A	N/A
4. N/A	N/A	N/A

### 3- HAZARDS IDENTIFICATION :

- Irritating to eyes and skin.
- May cause sensitization by skin contact.

### 4- FIRST AID MEASURES :

- Change any soiled clothing immediately.
- **In case of eye contact** : open eyelids as far as possible and flush with large quantities of water for at least fifteen minutes. Call a physician, preferably an eye specialist.
- **In case of skin contact** : physically remove the product and wash skin thoroughly with soap and water. Consult a physician if skin irritation occurs.
- **In case of swallowing** : do not attempt to make him/her vomit. Call a physician immediately.
- **In case of inhalation** : remove the patient from the contaminated area. Call a physician if after effects occur.

### 5- FIRE-FIGHTING MEASURES :

#### 5-1 Fire-extinguisher types :

- Use : chemical foam, CO<sub>2</sub>, powder. Where the fire is of major proportions, water spray may also be used.
- Do not use : N/A

#### 5-2 Specific fire and explosion risks :

Incomplete combustion or pyrolysis mainly produces oxides of carbon and water. Closed containers could rupture violently when exposed to elevated fire conditions.

#### 5-3 specific protective measures during firefighting :

Firefighting personnel should be equipped with insulated, autonomous respiratory protection equipment.

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**COMMERCIAL NAME : Akabond 631PT - Clear Penetrating Epoxy Component A - RESIN**

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**6- ACCIDENTAL RELEASE MEASURES :**

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**6-1 Individual protection :**

Wearing of suitable protective clothing and protective equipment for face/eyes.

**6-2 Environmental protection :** Please see § 12**6-3 Decontamination procedures :**

- Contain spilt material in order to avoid its transfer to sewers or rivers and streams.
- Physically remove the material.
- Cover material with sand, earth or any other similar absorbent material in order to soak product up. The resulting mix may then be shovelled into cans and removed for disposal (Please see § 13).

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**7- HANDLING AND STORAGE :**

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**7-1 Handling :**

- Inform personnel of risks associated with the product, the precautions to be taken and procedures to follow where an accident occurs.
- Observe personal hygiene rules to avoid contact with eyes and skin.
- Avoid inhaling vapors produced by the material when heated and/or sprayed.
- General ventilation in the area should be sufficient (fan-driven). Where vapors could possibly escape into the air in the workplace, local specific means of ventilation will be necessary.
- Install showers and eye baths ("fountain" type).
- Wash hands thoroughly at beginning of every work break and at the end of the working day.
- Work stations and the general working area must be kept perfectly clean.
- Avoid exposing people who have suffered from eczema or are still suffering from any skin condition, wound, cut or irritation to this material.

**7-2 Storage :**

- Keep the material hermetically sealed in its original packaging, protected from humidity and at a temperature between 59 and 77°F / 15 and 25°C in a well-ventilated storage facility.
- Ensure that the floor of the storage area is impermeable and concave in profile in order to provide effective containment.
- Reproduce labelling on all new packs where original packaging is divided.

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**8- EXPOSURE CONTROLS/PERSONAL PROTECTION :**

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**8-1 Exposure controls :**

Maintain air contaminant concentrations in the workplace at the lowest possible levels.

**8-2 Personal protection :**

- respiratory protection : NO, when vapors are below PEL recommendations (see §15).  
If product is heated and/or sprayed, respiratory protection is recommended.
- gloves : YES (rubber)
- eye protection : YES

Do not mix work clothing and normal clothing. Wash hands thoroughly at beginning of every work break and at the end of the working day.

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**COMMERCIAL NAME : Akabond 631PT - Clear Penetrating Epoxy Component A - RESIN**

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**9- PHYSICAL AND CHEMICAL PROPERTIES :**

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Physical state : **Liquid**

Color : **Water Clear**

Odor : **mild**

pH : **not established**

Flash point : **> 230°F / 110°C**

Decomposition temperature : **> 392°F / 200°C**

Specific gravity : **1.19**

Solubility : - in water : at 68°F / 20°C : low

- in solvents : YES (soluble in many organic solvents : benzene hydrocarbons and chlorinated hydrocarbons, acetone, phthalates, ...)

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**10- STABILITY AND REACTIVITY**

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**10-1 Dangerous decomposition by-products :**

- These are non-existent if storage and handling rules are followed (please see § 5-2).

- Excessive heating over long periods causes resin degradation.

**10-2 Hazardous reactions with :**

Exothermic reaction with products containing active hydrogen (especially acids, alcohols, bases such as soda, ammonia, amines, polymercaptans etc.)

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**11- TOXICOLOGICAL INFORMATION :**

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**Effects on eyes** : may cause slight temporary irritation.

**Effects on skin** : repeated or prolonged single exposure may cause irritation to the skin. May cause a cutaneous allergic reaction in predisposed individuals. It appears unlikely that any danger is attached to absorption of quantities of the product through the skin following prolonged single exposure.

**Effects of inhalation** : No foreseeable harmful effects.

**Effects on ingestion** : low toxicity for a single oral dose.

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**12- ECOLOGICAL INFORMATION :**

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Based on data for one or more similar products :

- **Ecotoxicity** : the product is probably moderately toxic to fish. Toxicity for aquatic invertebrates in static acute conditions is probably high.

- **Biodegradability** : non-biodegradable.

Given that this product is non-biodegradable and is moderately toxic to fish, it can be considered to be a potential pollutant.

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**13- DISPOSAL CONSIDERATIONS**

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Dispose of the product by burning in a suitable incinerator or bury in an approved landfill following all applicable local and/or national regulations.

Empty containers may not be disposed of unless any remaining material adhering to the internal walls has been removed.

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**COMMERCIAL NAME : Akabond 631PT - Clear Penetrating Epoxy Component A - RESIN****14- TRANSPORT INFORMATION :**

Not covered by official regulations.

**Internal label: H0002000**

**15- REGULATORY INFORMATION :****US Federal Regulation****Toxic Substances Control Act (TSCA):**

All components are included in the EPA Toxic Substances Control Act Chemical Substance Inventory.

**OSHA Hazard Communication Standard hazard classes:**

Irritant. 1.1.0 H0002000 Irritant

*OSHA PEL/TWA exposure limits:* none assigned

**EPA SARA Title III Section 312 hazard class:**

Immediate Health hazard. Delayed Health Hazard.

Symbol : Irritant.

**EPA SARA Title III Section 313 chemicals:**

None

Please refer to any other national measures or regulations that may be relevant to the product.

**16- OTHER INFORMATION :**

**HMIS Ratings:** Resin

- Health:	<b>2</b>
- Flammability:	<b>1</b>
- Reactivity:	<b>0</b>

Ratings Key: 4 = Highest hazard, 0 = Lowest hazard, \* = Chronic Health Hazard

**REVEALING MODIFICATION :**

Revised : 8/21/1900

Supersedes sheet : 8/18/1999 This sheet provides a complement to the product use instructions but does not replace them. The information it contains is based on our current knowledge of the product concerned at the date of drafting. That information is given in good faith and does not in any circumstances remove from the user his duty to be aware of and to follow all legal regulations and statutes covering his activities. The user takes sole responsibility for application of safety measures covering the use of the product he is aware of. We also draw the user's attention to the risks attached to any use of the product for applications for which it was not designed.

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Emergency Phone: 1-800-424-9300

8/21/2000

### 1- COMMERCIAL NAME : Akabond 631PT - Clear Penetrating Component B - HARDENER

### 2- COMPOSITION/INFORMATION ON INGREDIENTS :

CHEMICAL NAME	CAS NUMBER	QUANTITY in %
1. 1,3-bis(aminomethyl)cyclohexan	2579-20-6	30-50
2. Alpha-Hydroxy Toluene	100-51-6	30-50
3. N-N-Dimethylbenzylamine	103-83-3	<5
4. N/A	N/A	N/A
5. N/A	N/A	N/A
6. N/A	N/A	N/A

### 3- HAZARDS IDENTIFICATION :

- Corrosive to eyes (may cause severe damage including blindness). Vapors may be irritating.
- May cause skin sensitization, and may be toxic if absorbed through skin.
- Vapors/mists may be corrosive to upper respiratory tract.
- May causes gastrointestinal irritation and possibly burns if swallowed, corrosive to mouth, throat and stomach.

### 4- FIRST AID MEASURES :

- Change any soiled clothing immediately.
- **In case of eye contact** : open eyelids as far as possible and flush with large quantities of water for at least fifteen minutes. Call a physician ,preferably an eye specialist.
- **In case of skin contact** : physically remove the product and wash skin thoroughly with soap and water. Consult a physician if skin irritation occurs.
- **In case of swallowing** : give 1-2 glasses of milk or water to conscious person, do not induce vomiting. Call a physician and (or) hospitalize the patient immediately.
- **In case of inhalation** : remove the patient from the contaminated area, give oxygen if necessary. Call a physician if aftereffects occur.

### 5- FIRE-FIGHTING MEASURES :

#### 5-1 Fire-extinguisher types :

- Use : chemical foam, CO2, powder. Where the fire is of major proportions, water spray may also be used.
- Do not use :

#### 5-2 Specific fire and explosion risks :

- Burns when subjected to heat. Cool fire exposed containers with water.
- Incomplete combustion or pyrolysis mainly produces nitrogen oxides and nitrogen containing organic compounds may be released upon combustion. Prevent exposure to combustion products.

#### 5-3 specific protective measures during firefighting :

Firefighting personnel should be equipped with full turn-out gear and insulated, autonomous respiratory protection equipment.

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**COMMERCIAL NAME : Akabond 631PT - Clear Penetrating Component B - HARDENER**

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**6- ACCIDENTAL RELEASE MEASURES :**

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**6-1 Individual protection :**

Wearing of suitable protective clothing and protective equipment for face/eyes.

**6-2 Environmental protection :** Please see § 12**6-3 Decontamination procedures :**

- Contain spilt material in order to avoid its transfer to sewers or rivers and streams.
- Physically remove the material.
- Cover material with sand, earth or any other similar absorbent material in order to soak product up. The resulting mix may then be shoveled into cans and removed for disposal (Please see § 13).

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**7- HANDLING AND STORAGE :**

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**7-1 Handling :**

- Inform personnel of risks associated with the product, the precautions to be taken and procedures to follow where an accident occurs.
- Observe personal hygiene rules to avoid contact with eyes and skin.
- Avoid inhaling vapors produced by the material when heated and/or sprayed.
- General ventilation in the area should be sufficient (fan-driven). Where vapors could possibly escape into the air in the workplace, local specific means of ventilation will be necessary.
- Install showers and eye baths ("fountain" type).
- Wash hands thoroughly at beginning of every work break and at the end of the working day.
- Work stations and the general working area must be kept perfectly clean.
- Avoid exposure to the material of persons having suffered from eczema or still suffering from any skin condition, wound, cut or irritation.

**7-2 Storage :**

- Keep the material hermetically sealed in its original packaging, protected from humidity and at a temperature between 59 and 77°F / 15 and 25°C in a well-ventilated storage facility.
- Ensure that the floor of the storage area is impermeable and concave in profile in order to provide effective containment.
- Reproduce labeling on all new packs where original packaging is divided.

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**8- EXPOSURE CONTROLS/PERSONAL PROTECTION :**

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**8-1 Exposure controls :**

Always maintain workplace airborne contaminants to the lowest possible levels.

**8-2 Personal protection :**

- respiratory protection : NO, when vapors are below PEL recommendations.  
If product is heated and/or sprayed, respiratory protection is recommended.
- gloves : YES (rubber)
- eye protection : YES

Do not mix work clothing and normal clothing. Wash hands thoroughly at beginning of every work break and at the end of the working day.

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**COMMERCIAL NAME : Akabond 631PT - Clear Penetrating Component B - HARDENER**

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**9- PHYSICAL AND CHEMICAL PROPERTIES :**

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Physical state : **Liquid**

Color : **Water Clear**

Odor : **mild ammoniacal odor**

pH : **not established**

Flash point : **> 240°F / 120°C**

Decomposition temperature : **> 392°F / 200°C**

Specific gravity : **1.00**

Solubility : - in water : at 68°F / 20°C : low

- in solvents : YES (soluble in many organic solvents : benzene hydrocarbons and chlorinated hydrocarbons, acetone, phthalates, ...)

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**10- STABILITY AND REACTIVITY**

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**10-1 Dangerous decomposition :**

- Stable at normal conditions.

- Carbon Monoxide in fire. Carbon Dioxide in fire. Ammonia when heated. Nitrogen Oxides in fire. Irritating and toxic fumes at elevated temperatures. Nitric Acid in a fire.

**10-2 Hazardous reactions with :**

Do not place the product in contact with nitrocellulose or halo hydrocarbon derivatives. Do not allow uncontrolled reactions with acids, anhydrides, chloride acid compounds, isocyanates or epoxy resins.

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**11- TOXICOLOGICAL INFORMATION :**

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**Effects on eyes :** Corrosive, may cause severe ocular irritation. Vapors may cause also eye irritation and pain..

**Effects on skin :** Corrosive, a single short exposure may cause skin irritation or burns. Contact of undiluted product with skin may cause severe irritation and pain and may cause burns, necrosis and permanent injury.

**Inhalation :** excessive exposure may cause irritation and or burns to the upper respiratory tract. May lead to sensitization of respiratory system or asthma in predisposed individuals.

**Effects on ingestion :** May cause gastrointestinal irritation or ulceration. May cause burns of mouth, throat and stomach.

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**12- ECOLOGICAL INFORMATION :**

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**Ecotoxicity:** No data.

**Environmental Fate:** No data.

**Additional Information:** Waste from this product may present long term environmental hazards, thus landfill disposal must be considered less acceptable than incineration.

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**13- DISPOSAL CONSIDERATIONS**

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Dispose of the product by burning in a suitable incinerator or bury in an approved landfill following all applicable local, state, and federal regulations.

Empty containers may not be disposed of unless any remaining material adhering to the internal walls has been removed.

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8/21/2000

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**COMMERCIAL NAME : Akabond 631PT - Clear Penetrating Component B - HARDENER**

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**14- TRANSPORT INFORMATION :**

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Proper shipping Name: **Amines, liquid, corrosive, n.o.s.**  
**(1,3-bis(aminomethyl)cyclohexan)**

UN/NA No.: **2735**  
Packaging Group: **III**  
Hazard class: **8- corrosive**  
Internal Label: **H2265200**

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**15- REGULATORY INFORMATION :**

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***US Federal Regulation***

**Toxic Substances Control Act (TSCA):**

All components are included in the EPA Toxic Substances Control Act Chemical Substance Inventory.

**OSHA Hazard Communication Standard hazard classes:**

Corrosive. Sensitizer. Toxic by skin absorption.

*OSHA PEL/TWA and ACGIH TLV/TWA:* not established

**EPA SARA Title III Section 312 hazard class:**

Immediate Health hazard. Delayed Health Hazard.

**HMIS Ratings:**

Health - **3**

Fire Hazard - **1**

Reactivity - **1**

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**16- OTHER INFORMATION :**

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**REVEALING MODIFICATION :**

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8/21/2000

Previous Revision: 8/18/1999

This sheet provides a complement to the product use instructions but does not replace them. The information it contains is based on our current knowledge of the product concerned at the date of drafting. That information is given in good faith and does not in any circumstances remove from the user his duty to be aware of and to follow all legal regulations and statutes covering his activities. The user takes sole responsibility for application of safety measures covering the use of the product he is aware of. We also draw the user's attention to the risks attached to any use of the product for applications for which it was not designed. 08/98

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