

## 1. Product and company identification

### Product identifier

Trade name: 636W23-B - UHU PLUS Binder

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

General use: Adhesive (binding agent) for orthopedic procedures.  
Reserved for industrial and professional use.

### Details of the supplier of the safety data sheet

Company name: Otto Bock Health Care  
Street/POB-No.: 3820 W. Great Lakes Drive  
Postal Code, city: Salt Lake City, UT 84120  
USA  
WWW: [www.ottobockus.com](http://www.ottobockus.com)  
Telephone: +1 (801) 956-2400  
Telefax: +1 (801) 956-2401

Dept. responsible for information:  
Quality Department,  
Telephone: +1 (801) 954-2304 (7 AM – 3 PM, Mountain Time),  
Email: [USRegulatory@ottobock.com](mailto:USRegulatory@ottobock.com)

Additional information: Corporate headquarters:  
Ottobock SE & Co. KGaA  
Max-Näder-Straße 15  
Duderstadt  
Germany

### Emergency phone number

**CHEMTREC, Telephone: +1 (800) 424-9300**

**Transport:**

**CONSULTANK Lutz Harder GmbH (Contract QUALI003)**

**Telephone: +49 (0)178-4337434 (from USA: 01149 178 4337434)**

## 2. Hazards identification

### Emergency overview

Appearance: Form: liquid  
Color: colorless  
Odor: weak, characteristic  
Classification: Skin Irritation - Category 2; Eye Irritation - Category 2A; Sensitization - skin - Category 1; Aquatic toxicity - chronic - Category 2;

Hazard symbols:



Signal word: **Warning**

Hazard statements: Causes skin irritation.  
May cause an allergic skin reaction.  
Causes serious eye irritation.  
Toxic to aquatic life with long lasting effects.

Precautionary statements: Avoid release to the environment.  
Wear protective gloves/protective clothing/eye protection/face protection.  
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
Collect spillage.  
Dispose of contents/container to hazardous or special waste collection point.

### Regulatory status

This material is considered hazardous by the U.S. OSHA Hazard Communication Standard (29 CFR 1910.1200) and SIMDUT in Canada.

### Hazards not otherwise classified

see section 11: Toxicological information

## 3. Composition / Information on ingredients

Relevant ingredients:

CAS No.	Designation	Content	Classification
CAS 25068-38-6	Bisphenol A epoxy resin (molecular-weight < 700)	50 - 100 %	Skin Irritation - Category 2. Eye Irritation - Category 2A. Sensitization - skin - Category 1. Aquatic toxicity - chronic - Category 2.
CAS 9003-36-5	Bisphenol F Epoxy Resin	2.5 - 10 %	Skin Irritation - Category 2. Eye Irritation - Category 2A. Sensitization - skin - Category 1. Aquatic toxicity - chronic - Category 2.

## 4. First aid measures

General information: Take off immediately all contaminated clothing.

In case of inhalation: Provide fresh air. Seek medical attention if irritation persists.

Following skin contact: After contact with skin, wash immediately with soap and plenty of water. Seek medical attention if problems persist.

After eye contact: Immediately flush eyes with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Subsequently consult an ophthalmologist.

After swallowing: Rinse mouth immediately and drink plenty of water.  
Do not induce vomiting. Immediately get medical attention.

### Most important symptoms/effects, acute and delayed

Skin, eye: irritant

### Information to physician

Treat symptomatically.

### 5. Fire fighting measures

Flash point/flash point range:

410 °F (DIN 51755)

Auto-ignition temperature: none

Suitable extinguishing media:

Water spray jet, foam, dry chemical powder, carbon dioxide

Extinguishing media which must not be used for safety reasons:

Full water jet.

#### Specific hazards arising from the chemical

On heating or in case of fire toxic gases may form.

In case of fire may be liberated: hydrogen chloride, carbon monoxide and carbon dioxide.

Protective equipment and precautions for firefighters:

Wear self-contained breathing apparatus.

### 6. Accidental release measures

Personal precautions: Wear appropriate protective equipment. Keep unprotected people away.

Provide adequate ventilation. Avoid contact with skin and eyes.

Environmental precautions:

Do not allow to enter into ground-water, surface water or drains.

Methods for clean-up:

Collect with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents, or sawdust) and place in closed containers for disposal.

### 7. Handling and storage

#### Handling

Advices on safe handling: Make sure there is sufficient air exchange and / or that working rooms are air suctioned.

Avoid contact with skin and eyes.

Do not breathe vapor.

Suitable protective clothing.

Precautions against fire and explosion:

Keep away from sources of ignition - No smoking.

Specific use(s)

Adhesive

#### Storage

Requirements for storerooms and containers:

Keep only in the original container in a cool, well-ventilated place.

Keep container tightly closed and dry.

Hints on joint storage:

Do not store together with amines.

### 8. Exposure controls / personal protection

#### Engineering controls

Make sure there is sufficient air exchange and / or that working rooms are air suctioned.

See also information in chapter 7, section storage.

### Personal protection equipment (PPE)

Eye/face protection	Tightly sealed goggles according to OSHA Standard - 29 CFR: 1910.133 or ANSI Z87.1-2010.
Skin protection	Wear suitable protective clothing. Protective gloves according to OSHA Standard - 29 CFR: 1910.138. Glove material: butyl caoutchouc (butyl rubber) Breakthrough time: >480 min. Observe glove manufacturer's instructions concerning penetrability and breakthrough time.
Respiratory protection:	Not necessary, if the room is well-ventilated.
General hygiene considerations:	Avoid contact with skin and eyes. Wash hands before breaks and after work. When using do not eat, drink or smoke. Take off immediately all contaminated clothing. Do not breathe vapor.

## 9. Physical and chemical properties

### Information on basic physical and chemical properties

Appearance:	Form: liquid Color: colorless
Odor:	weak, characteristic
Odor threshold:	No data available
pH value:	6
Melting point/freezing point:	No data available
Initial boiling point and boiling range:	> 392 °F
Flash point/flash point range:	410 °F (DIN 51755)
Evaporation rate:	No data available
Flammability:	No data available
Explosion limits:	No data available
Vapor pressure:	at 68 °F: ≤ 0.01 hPa (DIN 51754)
Vapor density:	No data available
Density:	at 68 °F: 1.15 g/mL
Water solubility:	at 68 °F: immiscible
Partition coefficient: n-octanol/water:	No data available
Auto-ignition temperature:	none
Thermal decomposition:	No data available
Viscosity, dynamic:	at 68 °F: 40000 mPa*s
Explosive properties:	not applicable
Ignition temperature:	> 842 °F (DIN 51794)
Solvent content:	0 %
Solid content:	100 %

## 10. Stability and reactivity

Reactivity:	refer to 10.3
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Chemical stability: Product is stable under normal storage conditions.

Possibility of hazardous reactions  
Polymerization along with heat production.

Conditions to avoid: Keep away from heat.

Incompatible materials: Amines.

Hazardous decomposition products:  
On heating or in case of fire toxic gases may form.  
In case of fire may be liberated: hydrogen chloride, carbon monoxide and carbon dioxide.

Thermal decomposition: No data available

## 11. Toxicological information

### Toxicological tests

Toxicological effects: Acute toxicity (oral): Lack of data.  
Acute toxicity (dermal): Lack of data.  
Acute toxicity (inhalative): Lack of data.  
Skin corrosion/irritation: Skin Irritation - Category 2 = Causes skin irritation.  
Serious eye damage/irritation: Eye Irritation - Category 2A = Causes serious eye irritation.  
Sensitisation to the respiratory tract: Lack of data.  
Skin sensitisation: Sensitization - skin - Category 1 = May cause an allergic skin reaction.  
Germ cell mutagenicity/Genotoxicity: Lack of data.  
Carcinogenicity: Lack of data.  
Reproductive toxicity: Lack of data.  
Effects on or via lactation: Lack of data.  
Specific target organ toxicity (single exposure): Lack of data.  
Specific target organ toxicity (repeated exposure): Lack of data.  
Aspiration hazard: Lack of data.

### Symptoms

Skin, eye: irritant

### General remarks

May cause sensitization by skin contact.

## 12. Ecological information

### Ecotoxicity

Aquatic toxicity: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

### Mobility in soil

Contains The product contains organically bound halogen. Thus it may add to the AOX value.

## Persistence and degradability

Further details: No data available

## Additional ecological information

Volatile organic compounds (VOC):

0 % by weight

General information: Do not allow to penetrate into soil, waterbodies or drains.

# 13. Disposal considerations

## Product

Recommendation: Incinerate as hazardous waste according to applicable local, state, and federal regulations.

## Contaminated packaging

Recommendation: Waste key number:

150104 Metallic packaging

150102 Plastic packaging

Dispose of waste according to applicable legislation.

Handle contaminated packages in the same way as the substance itself.

# 14. Transport information

## USA: Department of Transportation (DOT)

Identification number: UN3082

Proper shipping name: UN 3082, UN 3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.  
(Reaction product: Bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight  $\leq 700$ ) and Formaldehyde, oligomeric reaction product with 1-chloro-2,3-epoxypropane and phenol)

Hazard class or Division: 9

Packing Group: III

Labels: 9

Symbols: G

Special provisions: 8, 146, 173, 335, IB3, T4, TP1, TP29

Packaging – Exceptions: 155

Packaging – Non-bulk: 203

Packaging – Bulk: 241

Quantity limitations – Passenger aircraft / rail:

No limit

Quantity limitations – Cargo only: No limit

Vessel stowage – Location: A



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### Sea transport (IMDG)

UN number: UN 3082  
 Proper shipping name: UN 3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.  
 (Reaction product: Bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight <=700) and Formaldehyde, oligomeric reaction product with 1-chloro-2,3-epoxypropane and phenol)  
 Class or division, Subsidiary risk: Class 9, Subrisk -  
 Packing Group: III  
 EmS: F-A, S-F  
 Special provisions: 274, 335, 969  
 Limited quantities: 5 L  
 Excepted quantities: E1  
 Contaminated packaging - Instructions: P001, LP01  
 Contaminated packaging - Provisions: PP1  
 IBC - Instructions: IBC03  
 IBC - Provisions: -  
 Tank instructions - IMO: -  
 Tank instructions - UN: T4  
 Tank instructions - Provisions: TP2, TP29  
 Stowage and handling: Category A.  
 Properties and observations: -  
 Marine pollutant: yes  
 Segregation group: none

### Air transport (IATA)

UN/ID number: UN 3082  
 Proper shipping name: UN 3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.  
 (Reaction product: Bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight <=700) and Formaldehyde, oligomeric reaction product with 1-chloro-2,3-epoxypropane and phenol)  
 Class or division, Subsidiary risk: Class 9  
 Packing Group: III  
 Hazard label: Miscellaneous  
 Excepted Quantity Code: E1  
 Passenger and Cargo Aircraft: Ltd.Qty.: Pack.Instr. Y964 - Max. Net Qty/Pkg. 30 kg G  
 Passenger and Cargo Aircraft: Pack.Instr. 964 - Max. Net Qty/Pkg. 450 L  
 Cargo Aircraft only: Pack.Instr. 964 - Max. Net Qty/Pkg. 450 L  
 Special provisions: A97 A158 A197  
 Emergency Response Guide-Code (ERG): 9L

## 15. Regulatory information

### National regulations - U.S. Federal Regulations

Product: TSCA: All components of this product are on the TSCA inventory or are exempt from TSCA Inventory requirements.  
 Bisphenol F Epoxy Resin: TSCA: listed - Flags: XU

### National regulations - U.S. State Regulations

California Prop 65 List: None

### National regulations - Canada

Classification: D2B

This MSDS has been prepared according to the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all of the information required by the CPR.

### National regulations - Great Britain

Hazchem-Code: •3Z

## 16. Other information

Text for labeling: Contains 50 - 100 % Bisphenol A epoxy resin (molecular-weight < 700), 2.5 - 10 % Bisphenol F Epoxy Resin. Safety data sheet available on request.

Hazard rating systems: NFPA Hazard Rating:



Health: 1 (Slight)

Fire: 1 (Slight)

Reactivity: 0 (Minimal)

HMIS Version III Rating:

Health: 1 (Slight)

Flammability: 1 (Slight)

Physical Hazard: 0 (Minimal)

Personal Protection: X = Consult your supervisor

HEALTH	1
FLAMMABILITY	1
PHYSICAL HAZARD	0
	X

Reason of change: Changes in section 1.3: Corporate headquarters

Date of first version: 9/10/1994

### Department issuing data sheet

Contact person: see section 1: Dept. responsible for information

The information in this data sheet has been established to our best knowledge and was up-to-date at time of revision. It does not represent a guarantee for the properties of the product described in terms of the legal warranty regulations.