

## 1. Product and company identification

### Product identifier

Trade name: 636W23-H - UHU PLUS Hardener

This safety data sheet pertains to the following products:  
636W23 = UHU-plus, endfest 300

### Recommended use and restrictions on use

General use: Adhesive  
Reserved for industrial and professional use.

### Initial supplier identifier

Company name: Otto Bock HealthCare Canada Ltd.

Street/POB-No.: 5470 Harvester Road

Postal Code, city: Burlington, ON L7L 5N5, CA  
Canada

WWW: www.ottobock.ca

E-mail: info.canada@ottobock.com

Telephone: (800) 665-3327

Telefax: (800) 463-3659

Department responsible for information:

Mark Agro, Telephone: (800) 665-3327 (9 am - 5 pm)

Additional information:

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

### Emergency phone number

**COLLECT, Telephone: (613) 996-6666**

**Transport:**

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

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

## 2. Hazards identification

### Emergency overview

Appearance: Physical state at 20 °C and 101.3 kPa: liquid

Color: yellow

Odor: amine odor

Classification: Skin Corrosion 1B. Eye Damage 1. Sensitization - skin 1.

Hazard symbols:



Signal word: **Danger**

Hazard statements: Causes severe skin burns and eye damage.  
May cause an allergic skin reaction.

**Precautionary statements:**

Do not breathe mist/vapors/spray.  
Wash hands and face thoroughly after handling.  
Wear protective gloves/protective clothing/eye protection/face protection.  
IF SWALLOWED: rinse mouth. Do NOT induce vomiting.  
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
Immediately call a POISON CENTER/doctor.  
Take off contaminated clothing and wash it before reuse.

**Regulatory status**

This material is considered hazardous by the WHMIS in Canada.

**Hazards not otherwise classified**

Special danger of slipping by leaking/spilling product.  
see section 11: Toxicological information

### 3. Composition / Information on ingredients

Chemical characterisation: Mixture of the substances listed below with non-hazardous additions

Relevant ingredients:

CAS No.	Designation	Concentration	Classification
CAS 10563-29-8	N'-(3-Aminopropyl)-N,N-dimethylpropane-1,3-diamine	2.5 - 10 %	Acute Toxicity 4 (oral). Skin Corrosion 1B. Sensitization - skin 1.
CAS 90640-67-8	Amines, polyethylenepoly-, triethylenetetramine fraction	3 - 5 %	Acute Toxicity 4 (oral). Acute Toxicity 4 (dermal). Skin Corrosion 1B. Eye Damage 1. Sensitization - skin 1. Aquatic toxicity - chronic 3.

### 4. First aid measures

General information:	First aider: Pay attention to self-protection! If medical advice is needed, have product container or label at hand. Take off immediately all contaminated clothing and wash it before reuse.
In case of inhalation:	If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. Seek medical attention.
Following skin contact:	After contact with skin, wash immediately with soap and plenty of water. Immediately get medical attention.
After eye contact:	Immediately flush eyes with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Remove contact lenses, if present and easy to do. Continue rinsing. Seek the attention of an ophthalmologist immediately.
After swallowing:	Rinse mouth immediately and drink plenty of water. Do not induce vomiting. Never give anything by mouth to an unconscious person. Immediately get medical attention.

**Most important symptoms and effects, both acute and delayed**

Causes severe skin burns and eye damage. May cause an allergic skin reaction.

### Information to physician

Treat symptomatically.

## 5. Fire fighting measures

Flash point/flash point range:

> 100 °C

Auto-ignition temperature: not self-igniting

Suitable extinguishing media:

Extinguishing is to be in accordance with the surrounding fire.  
Water spray jet, foam, extinguishing 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: nitrogen oxides (NO<sub>x</sub>), carbon monoxide and carbon dioxide.

Special protective equipment and precautions for fire-fighters:

Use a breathing apparatus independent of the ambient air (isolated apparatus) and a full protection outfit (suit) against chemicals.

## 6. Accidental release measures

Personal precautions:

Provide adequate ventilation. If possible, eliminate leakage.  
Do not breathe mist/vapors/spray. Avoid contact with the substance. Wear appropriate protective equipment. Take off immediately all contaminated clothing and wash it before reuse. Keep unprotected people away.

Environmental precautions:

Do not allow to enter into surface water or drains.  
If necessary, notify appropriate authorities.

Methods for clean-up:

Soak up with absorbent materials such as sand, siliceous earth, acid- or universal binder. Store in special closed containers and dispose of according to ordinance.  
In case of greater quantities: Collect mechanically (use only explosion-proof equipment when pumping out).  
Never return spills in original containers for re-use.

## 7. Handling and storage

### Handling

Advices on safe handling:

Provide adequate ventilation, and local exhaust as needed. Do not breathe mist/vapors/spray. Do not get in eyes, on skin, or on clothing. Wear appropriate protective equipment.  
Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling. Take off immediately all contaminated clothing and wash it before reuse.  
Have eye wash bottle or eye rinse ready at work place. When handling large quantities, supply emergency spray.

## Storage

Requirements for storerooms and containers:

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

Keep container tightly closed. Protect from excessive heat.

## 8. Exposure controls / personal protection

### Exposure guidelines

Occupational exposure limit values:

CAS No.	Designation	Type	Limit value
90640-67-8	Amines, polyethylenepoly-, triethylenetetramine fraction	Canada: OEL 8 hour	4.2 mg/m <sup>3</sup> ; 1 ppm (may be absorbed through the skin)
		Canada: OEL TWA	1 ppm (may be absorbed through the skin)
		Canada: OEL TWA	3 mg/m <sup>3</sup> ; 0.5 ppm (may be absorbed through the skin)
		Canada: VEMP	4.2 mg/m <sup>3</sup> ; 1 ppm (may be absorbed through the skin)

### 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:	Protective gloves according to OSHA Standard - 29 CFR: 1910.138. permanent contact, Glove material: butyl caoutchouc (butyl rubber), ethylene vinyl alcohol laminate (EVAL) Layer thickness: 0.7 mm Breakthrough time: >480 min. During splash contact, Glove material: Neoprene, butyl caoutchouc (butyl rubber) Breakthrough time: 10 - 480 min Observe glove manufacturer's instructions concerning penetrability and breakthrough time.
Respiratory protection:	Not necessary, if the room is well-ventilated. In case of inadequate ventilation wear respiratory protection. Wear half-mask respirator with combination filter for organic vapors and particles. The filter class must be suitable for the maximum contaminant concentration (gas/vapor/aerosol/particulates) that may arise when handling the product.
General hygiene considerations:	Do not breathe mist/vapors/spray. Do not get in eyes, on skin, or on clothing. Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling. Take off immediately all contaminated clothing and wash it before reuse. Have eye wash bottle or eye rinse ready at work place. When handling large quantities, supply emergency spray.

### Environmental exposure controls

Refer to 6.: Section "Environmental precautions".

## 9. Physical and chemical properties

### Information on basic physical and chemical properties

Appearance:	Physical state at 20 °C and 101.3 kPa: liquid Color: yellow
Odor:	amine odor
Odor threshold:	No data available
pH:	not determined
Melting point/freezing point:	No data available
Initial boiling point and boiling range:	approx. 278 °C
Flash point/flash point range:	> 100 °C
Evaporation rate:	No data available
Flammability:	Not applicable
Explosion limits:	No data available
Vapor pressure:	No data available
Vapor density:	No data available
Density:	at 20 °C: 0.95 g/mL
Water solubility:	at 20 °C: immiscible
Partition coefficient: n-octanol/water:	No data available
Auto-ignition temperature:	not self-igniting
Thermal decomposition:	No data available
Viscosity, dynamic:	at 20 °C: 32,500 mPa*s
Explosive properties:	Product is not explosive.
Solid content:	84.2 %

## 10. Stability and reactivity

Reactivity:	Stable under recommended storage conditions.
Chemical stability:	Stable under recommended storage conditions.
Possibility of hazardous reactions:	No dangerous reactions are known.
Conditions to avoid:	Keep away from heat sources, sparks and open flames. Protect from direct sunlight.
Incompatible materials:	None known
Hazardous decomposition products:	No decomposition when used properly.
Thermal decomposition:	No data available

## 11. Toxicological information

### Toxicological tests

Toxicological effects:	<p>The statements are derived from the properties of the single components. No toxicological data is available for the product as such.</p> <p>Acute toxicity (oral): Based on available data, the classification criteria are not met.</p> <p>Acute toxicity (dermal): Based on available data, the classification criteria are not met.</p> <p>Acute toxicity (inhalative): Based on available data, the classification criteria are not met.</p> <p>Skin corrosion/irritation: Skin Corrosion 1B = Causes severe skin burns and eye damage.</p> <p>Serious eye damage/irritation: Eye Damage 1 = Causes serious eye damage.</p> <p>Sensitisation to the respiratory tract: Lack of data.</p> <p>Skin sensitisation: Sensitization - skin 1 = May cause an allergic skin reaction.</p> <p>Germ cell mutagenicity/Genotoxicity: Based on available data, the classification criteria are not met.</p> <p>Carcinogenicity: Based on available data, the classification criteria are not met.</p> <p>Reproductive toxicity: Based on available data, the classification criteria are not met.</p> <p>Effects on or via lactation: Lack of data.</p> <p>Specific target organ toxicity (single exposure): Based on available data, the classification criteria are not met.</p> <p>Specific target organ toxicity (repeated exposure): Based on available data, the classification criteria are not met.</p> <p>Aspiration hazard: Based on available data, the classification criteria are not met.</p>
Other information:	<p>Information about: Amines, polyethylenepoly-, triethylenetetramine fraction:</p> <p>LD50, Rat: 1,716 (OECD 401)</p> <p>LD50, Rabbit: 1,465 (OECD 402)</p>

### Symptoms

After eye contact: Upon direct contact with eyes may cause burning, tearing, redness.

## 12. Ecological information

### Ecotoxicity

Further details: No data available

### Mobility in soil

No data available

### 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.

Avoid spills and leaks. Very small amounts contaminates drinking water.

Do not release undiluted and unneutralized to the sewer.

## 13. Disposal considerations

### Product

Recommendation: Dispose of waste according to applicable legislation.  
Do not dispose of with household waste.

### Package

Recommendation: Dispose of waste according to applicable legislation.  
Handle contaminated packages in the same way as the substance itself.

## 14. Transport information

### UN number

ADR/RID, IMDG, IATA-DGR:

UN 2735

### UN proper shipping name

ADR/RID, IMDG, IATA-DGR:

UN 2735, POLYAMINES, LIQUID, CORROSIVE, N.O.S.  
(Amines, polyethylenepoly-, triethylenetetramine fraction;  
N'-(3-Aminopropyl)-N,N-dimethylpropane-1,3-diamine)

### Transport hazard class(es)

ADR/RID: Class 8, Code: C7

IMDG: Class 8, Subrisk -

IATA-DGR: Class 8



### Packing group

ADR/RID, IMDG, IATA-DGR:

III

### Environmental hazards

Marine pollutant: no

### Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

No data available

### Canada: Transportation of Dangerous Goods (TDG)

UN Number: UN2735

Shipping name: UN 2735, POLYAMINES, LIQUID, CORROSIVE, N.O.S.  
(Amines, polyethylenepoly-, triethylenetetramine fraction;  
N'-(3-Aminopropyl)-N,N-dimethylpropane-1,3-diamine)

TDG class: 8

Packing group: III

Special provisions: 16

Explosive limit and limited quantity index: 5 L

Passenger carrying road or rail index: 5 L

### Sea transport (IMDG)

UN number:	UN 2735
Proper shipping name::	UN 2735, POLYAMINES, LIQUID, CORROSIVE, N.O.S. (Amines, polyethylenepoly-, triethylenetetramine fraction; N'-(3-Aminopropyl)-N,N-dimethylpropane-1,3-diamine)
Class or division, Subsidiary risk:	Class 8, Subrisk -
Packing Group:	III
EmS:	F-A, S-B
Special Provisions:	223 274
Limited quantities:	5 L
Excepted quantities:	E1
Package - Instructions:	P001, LP01
Package - Provisions:	-
IBC - Instructions:	IBC03
IBC - Provisions:	-
Tank instructions - IMO:	-
Tank instructions - UN:	T7
Tank instructions - Provisions:	TP1, TP28
Stowage and handling:	Category A.
Segregation:	SG35
Properties and observations:	Colourless to yellowish liquids or solutions with a pungent odour. Miscible with or soluble in water. When involved in a fire, evolve toxic gases. Corrosive to most metals, especially to copper and its alloys. React violently with acids. Cause burns to skin, eyes and mucous membranes.
Marine pollutant:	no
Segregation group:	18

### Air transport (IATA)

UN/ID number:	UN 2735
Proper shipping name::	UN 2735, POLYAMINES, LIQUID, CORROSIVE, N.O.S. (Amines, polyethylenepoly-, triethylenetetramine fraction; N'-(3-Aminopropyl)-N,N-dimethylpropane-1,3-diamine)
Class or division, Subsidiary risk:	Class 8
Packing Group:	III
Hazard label:	Corrosive
Excepted Quantity Code:	E1
Passenger and Cargo Aircraft: Ltd.Qty.:	Pack.Instr. Y841 - Max. Net Qty/Pkg. 1 L
Passenger and Cargo Aircraft:	Pack.Instr. 852 - Max. Net Qty/Pkg. 5 L
Cargo Aircraft only:	Pack.Instr. 856 - Max. Net Qty/Pkg. 60 L
Special Provisions:	A3 A803
Emergency Response Guide-Code (ERG):	8L

## 15. Regulatory information

### National regulations - Canada

No data available

## 16. Other information

Text for labeling:	Contains 2.5 - 10 % N'-(3-Aminopropyl)-N,N-dimethylpropane-1,3-diamine, 3 - 5 % Amines, polyethylenepoly-, triethylenetetramine fraction.
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Hazard rating systems:



**NFPA Hazard Rating:**

Health: 3 (Serious)

Fire: 1 (Slight)

Reactivity: 0 (Minimal)

**HMIS Version III Rating:**

Health: 3 (Serious)

Flammability: 1 (Slight)

Physical Hazard: 0 (Minimal)

Personal Protection: X = Consult your supervisor

HEALTH	3
FLAMMABILITY	1
PHYSICAL HAZARD	0
	X

Abbreviations and acronyms:

Acute Toxicity: Acute toxicity  
 ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways  
 ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road  
 Aquatic toxicity - chronic: Hazardous to the aquatic environment - chronic  
 AS/NZS: Australian Standards/New Zealand Standards  
 CAS: Chemical Abstracts Service  
 CFR: Code of Federal Regulations  
 CLP: Classification, Labelling and Packaging  
 DMEL: Derived minimal effect level  
 DNEL: Derived no-effect level  
 EC: European Community  
 EmS: Emergency Response Procedures for Ships Carrying Dangerous Goods  
 EN: European Standard  
 EQ: Excepted quantities  
 Eye Damage: Eye damage  
 IATA: International Air Transport Association  
 IATA-DGR: International Air Transport Association – Dangerous Goods Regulations  
 IBC Code: International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk  
 IMDG Code: International Maritime Dangerous Goods Code  
 IMO: International Maritime Organization  
 LD50: Lethal dose 50%  
 MARPOL: Maritime Pollution: The International Convention for the Prevention of Pollution from Ships  
 OSHA: Occupational Safety and Health Administration  
 PBT: Persistent, bioaccumulative and toxic  
 PNEC: Predicted no-effect concentration  
 RID: Regulations Concerning the International Carriage of Dangerous Goods by Rail  
 Sensitization - skin: Skin sensitisation  
 Skin Corrosion: Skin corrosion  
 TRGS: Technical Rules for Hazardous Substances  
 UN: United Nations  
 vPvB: Very persistent and very bioaccumulative  
 WHMIS: Workplace Hazardous Materials Information System

Reason of change: **General revision**

Date of first version: **29/9/1994**

**Department issuing data sheet**

Contact person: **see section 1: Department 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.