



SAFETY DATA SHEET

according to 29 CFR 1910.1200 and ANSI standard Z400.1-2010

636W28 - O.B. Special Glue Cartridge A & B

Material number 636W28

Revision date: 3/23/2025
Version: 11.3
Replaces version: 11.2
Language: en-US
Date of print: 9/2/2025

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1. Product and company identification

Product identifier

Trade name: 636W28 - O.B. Special Glue Cartridge A & B
Two-component glue: 636W28=A and 636W28=B
This safety data sheet pertains to the following products:
636W28=0.050 = O.B. Spezial Klebstoff A und B 50ml

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

General use: Adhesive 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
Telephone: +1 (801) 956-2400
Telefax: +1 (801) 956-2401
Department responsible for information:
Quality Department,
Telephone: +1 (801) 954-2304 (7 AM – 3 PM, Mountain Time),
Email: 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: Physical state at 68 °F and 101.3 kPa: liquid
Form: pasty
Color: beige, gray
Odor: amine odor, weakly aromatic
Classification: Skin Irritation - Category 2. Eye Damage - Category 1. Sensitization - skin -
Category 1. Aquatic toxicity - chronic - Category 2.

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Hazard symbols:



Signal word:

Danger

Hazard statements:

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

Precautionary statements:

Avoid breathing mist/vapors/spray.
Avoid release to the environment.
Wear protective gloves and eye protection.
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.
Collect spillage.

Regulatory status

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

Hazards not otherwise classified

Damages of health may occur with delay.
Special danger of slipping by leaking/spilling product.
see section 11: Toxicological information

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3. Composition / Information on ingredients

Relevant ingredients:

CAS No.	Designation	Concentration	Classification
CAS 25068-38-6	Bisphenol A epoxy resin (molecular-weight < 700)	50 - 70 %	Skin Irritation - Category 2. Eye Irritation - Category 2A. Sensitization - skin - Category 1. Aquatic toxicity - chronic - Category 2.
CAS 68154-62-1	Reaction products of fatty acid dimers and trimers, C18 (unsaturated) alkyl and fatty acids, C18 (unsaturated) alkyl with amines, polyethylenepoly-, triethylenetetramine fraction	< 60 %	Skin Irritation - Category 2. Eye Damage - Category 1. Sensitization - skin - Category 1A. Aquatic toxicity - chronic - Category 2.
CAS 68154-62-1	Reaction products of fatty acid dimers and trimers, C18 (unsaturated) alkyl and fatty acids, C18 (unsaturated) alkyl with amines, polyethylenepoly-, triethylenetetramine fraction (polymerized)	< 30 %	Skin Irritation - Category 2. Eye Damage - Category 1. Sensitization - skin - Category 1. Aquatic toxicity - chronic - Category 3.
CAS 90640-67-8	Amines, polyethylenepoly-, triethylenetetramine fraction	< 15 %	Acute Toxicity - oral - Category 4. Acute Toxicity - dermal - Category 4. Skin Corrosion - Category 1B. Eye Damage - Category 1. Sensitization - skin - Category 1. Aquatic toxicity - chronic - Category 3.

4. First aid measures

General information:	If medical advice is needed, have product container or label at hand. First aider: Pay attention to self-protection!
In case of inhalation:	Move victim to fresh air; if necessary, provide artificial respiration or oxygen. Consult doctor afterwards.
Following skin contact:	Take off immediately all contaminated clothing and wash it before reuse. 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. Subsequently seek the immediate attention of an ophthalmologist.

After swallowing: Rinse mouth with water. Have victim drink large quantities of water, with active charcoal if possible.
Do not induce vomiting.
In case of vomiting, position victim on their side. Never give anything by mouth to an unconscious person. Immediately get medical attention.

Most important symptoms/effects, acute and delayed

Causes serious eye damage. Causes skin irritation.
May cause an allergic skin reaction.
In case of inhalation: Mucous membrane irritation, cough, shortage of breath.
Other symptoms: Reddening, causes tears.
Damages of health may occur with delay.

Information to physician

Treat symptomatically.
Symptoms of poisoning may develop several hours following exposure. Victim should be under medical observation for at least 48 hours after exposure.

5. Fire fighting measures

Flash point/flash point range:

Curing agent > 212 °F (c.c.)

Auto-ignition temperature: No data available

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

May form dangerous gases and vapors in case of fire.
Furthermore, there may develop: halogenated compounds, nitrogen oxides (NOx), nitrous fumes, carbon monoxide and carbon dioxide

Protective equipment and precautions for firefighters:

Wear self-contained positive pressure breathing apparatus and full firefighting protective clothing.

Additional information:

Use fine water spray to cool endangered containers.
Do not allow water used to extinguish fire to enter drains, ground or waterways.
Fire residuals and contaminated extinguishing water must be disposed of in accordance with the regulations of the local authorities.

6. Accidental release measures

Personal precautions:

Eliminate all ignition sources if safe to do so.
Avoid contact with skin, eyes, and clothing.
Do not breathe mist/vapors/spray. Provide adequate ventilation.
Keep unprotected people away. Wear appropriate protective equipment. Take off immediately all contaminated clothing and wash it before reuse.

Environmental precautions:

Do not allow to enter drains, surface waters, basements or pits. If necessary, notify appropriate authorities.

Methods for clean-up: Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents). Provide good ventilation. Dispose of waste according to applicable legislation.

Additional information: Special danger of slipping by leaking/spilling product.

7. Handling and storage

Handling

Advices on safe handling: Obtain special instructions before use.
Provide good ventilation and/or an exhaust system in the work area.
Avoid contact with skin, eyes, and clothing.
Do not breathe mist/vapors/spray. Wear appropriate protective equipment.
Take off immediately all contaminated clothing and wash it before reuse.
Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling. When handling large quantities, supply emergency spray.

Precautions against fire and explosion:
Keep away from sources of ignition - No smoking.

Storage

Requirements for storerooms and containers:
Keep only in the original container.
Keep container tightly closed and dry.
Keep in a cool place.
storage temperature 35.6 - 104 °F. Protect from direct sunlight.

Hints on joint storage: Avoid contact with strong acids, strong bases and strong oxidizing agents.
Keep away from food, drink and animal feedingstuffs.

8. Exposure controls / personal protection

Exposure guidelines

Occupational exposure limit values:

CAS No.	Designation	Type	Limit value
90640-67-8	Amines, polyethylenepoly-, triethylenetetramine fraction	USA: ACGIH: TWA	4.2 mg/m ³ ; 1 ppm (may be absorbed through the skin)
		USA: NIOSH: TWA	4 mg/m ³ ; 1 ppm (may be absorbed through the skin)
112945-52-5	Silicon dioxide	USA: IDLH: TWA	3,000 mg/m ³
		USA: NIOSH: TWA	6 mg/m ³
		USA: OSHA: TWA	20 mppcf
		USA: OSHA: TWA	80 mg/m ³ (total dust)

Engineering controls

Provide adequate ventilation.
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 closed work clothing. Protective gloves according to OSHA Standard - 29 CFR: 1910.138. Glove material: Butyl caoutchouc (butyl rubber), ethylene vinyl alcohol laminate (EVAL), Nitrile rubber Observe glove manufacturer's instructions concerning penetrability and breakthrough time.
Respiratory protection:	Respiratory protection must be worn whenever the TLV (WEL) levels have been exceeded. In case of inadequate ventilation wear respiratory protection. Use filter type A-P2 according to OSHA Standard - 29 CFR: 1910.134 or ANSI Z88.2.
General hygiene considerations:	Avoid contact with skin and eyes. Wash hands before breaks and after work. Do not breathe mist/vapors/spray. Keep away from food, drink and animal feedingstuffs. Take off immediately all contaminated clothing and wash it before reuse. Work place should be equipped with a shower and an eye rinsing apparatus.

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 68 °F and 101.3 kPa: liquid Form: pasty Color: beige, gray
Odor:	amine odor, weakly aromatic
Odor threshold:	No data available
pH:	No data available
Melting point/freezing point:	No data available
Initial boiling point and boiling range:	No data available
Flash point/flash point range:	Curing agent > 212 °F (c.c.)
Evaporation rate:	No data available
Flammability:	No data available
Explosion limits:	No data available
Vapor pressure:	No data available
Vapor density:	No data available
Density:	No data available
Water solubility:	at 68 °F: insoluble
Partition coefficient: n-octanol/water:	No data available
Auto-ignition temperature:	No data available
Thermal decomposition:	>200°C
Additional information:	No data available

10. Stability and reactivity

Reactivity:	refer to section 10.3
Chemical stability:	Stable under recommended storage conditions.
Possibility of hazardous reactions:	Reacts with: strong acids strong bases.
Conditions to avoid:	Protect from direct sunlight. Keep away from heat.
Incompatible materials:	Avoid contact with strong acids, strong bases and strong oxidizing agents.
Hazardous decomposition products:	No hazardous decomposition products when regulations for storage and handling are observed.
Thermal decomposition:	>200°C

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. Curing agent ATEmix calculated: > 2,000 mg/kg.</p> <p>Acute toxicity (dermal): Based on available data, the classification criteria are not met. Curing agent ATEmix calculated: > 2,000 mg/kg.</p> <p>Acute toxicity (inhalative): Lack of data.</p> <p>Skin corrosion/irritation: Skin Irritation - Category 2 = Causes skin irritation. Curing agent Not corrosive in human skin model test. (OECD 435)</p> <p>Serious eye damage/irritation: Eye Damage - Category 1 = Causes serious eye damage.</p> <p>Sensitisation to the respiratory tract: Data technically impossible to obtain.</p> <p>Skin sensitisation: Sensitization - skin - Category 1 = May cause an allergic skin reaction.</p> <p>Germ cell mutagenicity/Genotoxicity: Lack of data.</p> <p>Carcinogenicity: Lack of data.</p> <p>Reproductive toxicity: Lack of data.</p> <p>Effects on or via lactation: Lack of data.</p> <p>Specific target organ toxicity (single exposure): Lack of data.</p> <p>Specific target organ toxicity (repeated exposure): Lack of data.</p> <p>Aspiration hazard: Lack of data.</p>
Other information:	<p>Information about Reaction product: Bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight ≤ 700):</p> <p>LD50 Rat, dermal > 2,000 mg/kg</p> <p>LD50 Rat, oral > 2,000 mg/kg</p>

Symptoms

In case of inhalation:

Information about Triethylenetetramine: Mucous membrane irritation, cough, shortage of breath.

In case of ingestion: Risk of perforation in the oesophagus and stomach.

After contact with skin: Reddening. Danger of cutaneous absorption.

After eye contact: Reddening, causes tears.

12. Ecological information

Ecotoxicity

Aquatic toxicity:

Toxic to aquatic life with long lasting effects.

Information about Reaction products of fatty acid dimers and trimers, C18 (unsaturated) alkyl and fatty acids, C18 (unsaturated) alkyl with amines, polyethylenepoly-, triethylenetetramine fraction:

Fish toxicity:

LC50 Danio rerio (zebrafish): 7.07 mg/L/96h (OECD 203)

Daphnia toxicity:

EC50 Daphnia magna (Big water flea): 5.18 mg/L/48h (OECD 202)

Algae toxicity:

ErC50 Selenastrum capricornutum: 2.43 mg/L/72h (OECD 201)

Bacterial toxicity:

EC50 activated sludge: 421 mg/L/3h (OECD 209)

Information about Triethylenetetramine:

Fish toxicity: LC50 Pimephales promelas (fathead minnow): 330 mg/L /96 h.

Daphnia toxicity:

EC50 Daphnia magna (Big water flea): 31.1 mg/L/48h (EG, C.2)

EC10 1.9 mg/L/21d (OECD 202)

Algae toxicity:

ErC50 Selenastrum capricornutum: 20 mg/L/72h (OECD 201)

Bacterial toxicity:

EC50 activated sludge: 800 mg/L/0,5h (OECD 209)

Reaction product with Bisphenol-A-(epichlorhydrin) epoxy resin (molecular weight <=700):

Algae toxicity:

EC50 algae: 9.4 mg/L/72h. (EPA CFR)

Daphnia toxicity:

EC50 Daphnia magna: 1.7 mg/L/48h. (OECD 202)

NOEC Daphnia magna: 0.3 mg/L/21dh. (OECD 211)

Fish toxicity:

LC50: 1.5 mg/L/96h. (OECD 203)

Mobility in soil

Information about Diethylenetriamine:

Koc 19,111

Information about triethylenetetramine:

Koc 1589.4 - 19,111 (OECD 106)

Persistence and degradability

Further details: Information about Triethylentetramine:
Biodegradation: 0 % / 162d (OECD 301D) Product is not readily biodegradable.
Information about Reaction product: Bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight ≤ 700):
Biodegradation: 5% (OECD 301 F).
Product is not readily biodegradable.

Additional ecological information

Volatile organic compounds (VOC):
0 % by weight
General information: Do not allow to enter into ground-water, surface water or drains.

13. Disposal considerations

Product

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

Package

Recommendation: Dispose of waste according to applicable legislation.
Non-contaminated packages may be recycled.

14. Transport information

UN number

ADR/RID, IMDG, IATA-DGR:
UN 3082

UN proper shipping name

ADR/RID, IMDG, IATA-DGR:
UN 3082,
ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. Diethylenetriamine

Transport hazard class(es)

ADR/RID: Class 9, Code: M6
IMDG: Class 9, Subrisk -
IATA-DGR: Class 9

Packing group

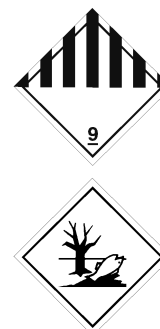
ADR/RID, IMDG, IATA-DGR:
III

Environmental hazards

Marine pollutant: yes

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

No data available



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USA: Department of Transportation (DOT)

Identification number: UN3082
Proper shipping name: UN 3082,
ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,
N.O.S. Diethylenetriamine
Hazard class or Division: 9
Packing Group: III
Labels: 9
Symbols: G
Special Provisions: 8, 146, 173, 335, 441, 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



Sea transport (IMDG)

UN number: UN 3082
Proper shipping name: UN 3082,
ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
Diethylenetriamine
Class or division, Subsidiary risk: Class 9, Subrisk -
Packing Group: III
EmS: F-A, S-F
Special Provisions: 274 335 375 969
Limited quantities: 5 L
Excepted quantities: E1
Package - Instructions: P001, LP01
Package - Provisions: PP1
IBC - Instructions: IBC03
IBC - Provisions: -
Tank instructions - IMO: -
Tank instructions - UN: T4
Tank instructions - Provisions: TP1, TP29
Stowage and handling: Category A.
Properties and observations: -
Marine pollutant: yes
Segregation group: none



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Air transport (IATA)

UN/ID number: UN 3082
Proper shipping name:: UN 3082,
ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
Diethylenetriamine
Class or division, Subsidiary risk: Class 9
Packing Group: III
Hazard label: Miscellaneous & Environmentally hazardous
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 A215
Emergency Response Guide-Code (ERG): 9L

15. Regulatory information

National regulations - U.S. Federal Regulations

Product: SARA Title III - Section 313 Supplier Notification: See chapter 2

Bisphenol A epoxy resin (molecular-weight < 700): TSCA Inventory: listed

Reaction products of fatty acid dimers and trimers, C18 (unsaturated) alkyl and fatty acids, C18 (unsaturated) alkyl with amines, polyethylenepoly-, triethylenetetramine fraction: TSCA Inventory: listed; UVCB

Reaction products of fatty acid dimers and trimers, C18 (unsaturated) alkyl and fatty acids, C18 (unsaturated) alkyl with amines, polyethylenepoly-, triethylenetetramine fraction (polymerized): TSCA Inventory: listed; UVCB

National regulations - U.S. State Regulations

No data available

National regulations - Canada

Bisphenol A epoxy resin (molecular-weight < 700): DSL: listed

Reaction products of fatty acid dimers and trimers, C18 (unsaturated) alkyl and fatty acids, C18 (unsaturated) alkyl with amines, polyethylenepoly-, triethylenetetramine fraction: DSL: listed

Reaction products of fatty acid dimers and trimers, C18 (unsaturated) alkyl and fatty acids, C18 (unsaturated) alkyl with amines, polyethylenepoly-, triethylenetetramine fraction (polymerized): DSL: listed

Silicon dioxide: DSL: listed

National regulations - Great Britain

Hazchem-Code: •3Z

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16. Other information

Text for labeling:

Contains 50 - 70 % Bisphenol A epoxy resin (molecular-weight < 700), < 60 % Reaction products of fatty acid dimers and trimers, C18 (unsaturated) alkyl and fatty acids, C18 (unsaturated) alkyl with amines, polyethylenepoly-, triethylenetetramine fraction, < 30 % Reaction products of fatty acid dimers and trimers, C18 (unsaturated) alkyl and fatty acids, C18 (unsaturated) alkyl with amines, polyethylenepoly-, triethylenetetramine fraction (polymerized), < 15 % Amines, polyethylenepoly-, triethylenetetramine fraction.

Contains:

Reaction products of fatty acid dimers and trimers, C18 (unsaturated) alkyl and fatty acids, C18 (unsaturated) alkyl with amines, polyethylenepoly-, triethylenetetramine fraction; Amines, polyethylenepoly-, triethylenetetramine fraction

Reaction product: Bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight ≤ 700)

Hazard rating systems:



NFPA Hazard Rating:

Health: 3 (Serious)

Fire: 1 (Slight)

Reactivity: 0 (Minimal)

HMIS Version III Rating:

Health: 3 (Serious) - Chronic effects

Flammability: 1 (Slight)

Physical Hazard: 0 (Minimal)

Personal Protection: X = Consult your supervisor

HEALTH	*	3
FLAMMABILITY		1
PHYSICAL HAZARD		0
X		



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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
ATEmix: Acute Toxicity Estimate of mixture
BCF: Bioconcentration Factor
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
EC50: Effective Concentration 50%
EmS: Emergency Response Procedures for Ships Carrying Dangerous Goods
EN: European Standard
EQ: Excepted quantities
Eye Damage: Eye damage
Eye Irritation: Eye irritation
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
LC50: Median lethal concentration
LD50: Lethal dose 50%
MARPOL: Maritime Pollution: The International Convention for the Prevention of Pollution from Ships
NOEC: No Observed Effect Concentration
OEL: Occupational Exposure Limit Value
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
Skin Irritation: Skin irritation
TLV: Threshold Limit Value
TRGS: Technical Rules for Hazardous Substances
UN: United Nations
vPvB: Very persistent and very bioaccumulative
WEL: Workplace Exposure Limit

Reason of change: Changes in section 8: Occupational exposure limit values
Changes in section 14: IMDG 2025
Date of first version: 11/26/2014

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.