

1 Identification

Product identifier

Trade name: 636W28 - O.B. Special Glue Cartridge A & B

Other means of identification

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

Recommended use and restrictions on use

General use: Adhesive for orthopedic procedures.
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
Email: 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 telephone number

COLLECT, Telephone: (613) 996-6666
Transport:
CONSULTANK Lutz Harder GmbH (Contract QUALI003)
Telephone: +49 (0)178-4337434 (from USA: 01149 178 4337434)

2 Hazard identification

Classification

Skin Irritation 2	Causes skin irritation.
Eye Damage 1	Causes serious eye damage.
Sensitization - skin 1	May cause an allergic skin reaction.
Aquatic toxicity - chronic 2	Toxic to aquatic life with long lasting effects.

Information elements

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/vapours/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.

Other hazards known to the supplier with respect to the product

Damages of health may occur with delay.
Special danger of slipping by leaking/spilling product.

3 Composition/Information on ingredients

Mixture

Hazardous ingredients:

CAS No.	Designation	Content	Classification
CAS 25068-38-6	Bisphenol A epoxy resin (molecular-weight < 700)	50 - 70 %	Skin Irritation 2. Eye Irritation 2A. Sensitization - skin 1. Aquatic toxicity - chronic 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 2. Eye Damage 1. Sensitization - skin 1. Aquatic toxicity - chronic 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 2. Eye Damage 1. Sensitization - skin 1. Aquatic toxicity - chronic 3.
CAS 90640-67-8	Amines, polyethylenepoly-, triethylenetetramine fraction	< 15 %	Acute Toxicity 4 (oral). Acute Toxicity 4 (dermal). Skin Corrosion 1B. Eye Damage 1. Sensitization - skin 1. Aquatic toxicity - chronic 3.

The actual concentration or concentration range is withheld as a trade secret.

4 First-aid measures

Description of necessary 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.
In case of 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.
In case of 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.

In case of 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.

Most important symptoms and effects, whether acute or 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.

Indication of immediate medical attention and special treatment needed, if necessary

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

Suitable and unsuitable extinguishing media

Suitable extinguishing media:

Water spray jet, foam, extinguishing powder, carbon dioxide.

Unsuitable extinguishing media:

Full water jet

Specific hazards arising from the product

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

Special protective equipment and precautions for fire-fighters

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, protective equipment and emergency procedures

Eliminate all ignition sources if safe to do so.
Avoid contact with skin, eyes, and clothing.
Do not breathe mist/vapours/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 and material for containment and cleaning 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

Precautions for safe 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/vapours/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.

Conditions for safe storage, including any incompatibilities

Requirements for storerooms and containers:

Keep only in the original container.
Keep container tightly closed and dry.
Keep in a cool place.
storage temperature 2 - 40 °C. 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

Control parameters

Occupational exposure limit values:

CAS No.	Designation	Type	Limit value
90640-67-8	Amines, polyethylenepoly -, triethylenetetram ine fraction	Canada: Alberta, OEL 8 hour	4.2 mg/m ³ ; 1 ppm (may be absorbed through the skin)
		Canada: BC, OEL TWA	1 ppm (may be absorbed through the skin)
		Canada: Ontario, OEL TWA	3 mg/m ³ ; 0.5 ppm (may be absorbed through the skin)
		Canada: Québec, VEMP	4.2 mg/m ³ ; 1 ppm (may be absorbed through the skin)

Appropriate engineering controls

Provide adequate ventilation.

Individual protection measures, such as personal protective equipment

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.
Hand protection:	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.
Eye protection:	Tightly sealed goggles according to OSHA Standard - 29 CFR: 1910.133 or ANSI Z87.1-2010.
Body protection:	Wear closed work clothing.
General hygiene considerations:	Avoid contact with skin and eyes. Wash hands before breaks and after work. Do not breathe mist/vapours/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

Physical state at 20 °C and 101.3 kPa	liquid
Colour:	Form: pasty beige, gray
Odour:	amine odour, weakly aromatic
Odour threshold:	No data available
Melting point and freezing point:	No data available
Boiling point or initial boiling point and boiling range:	No data available
Flammability:	No data available
Lower and upper explosion limit or lower and upper flammability limit:	No data available
Flash point/flash point range:	Curing agent > 100 °C (c.c.)
Evaporation rate:	No data available
Auto-ignition temperature:	No data available
Decomposition temperature:	>200°C
pH:	No data available
Water solubility:	at 20 °C: insoluble
Partition coefficient — n-octanol/water:	No data available
Vapour pressure:	No data available
Density and/or relative density	No data available
Vapour density:	No data available
Particle characteristics:	Not applicable

Additional information

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.

11 Toxicological information

Information on the likely routes of exposure

No data available

Health hazard information

Acute toxicity (oral): Based on available data, the classification criteria are not met.

Curing agent

ATEmix calculated: > 2,000 mg/kg.

Acute toxicity (dermal): Based on available data, the classification criteria are not met.

Curing agent

ATEmix calculated: > 2,000 mg/kg.

Acute toxicity (inhalative): Lack of data.

Skin corrosion/irritation: Skin Irritation 2 = Causes skin irritation.

Curing agent

Not corrosive in human skin model test. (OECD 435)

Serious eye damage/irritation: Eye Damage 1 = Causes serious eye damage.

Sensitisation to the respiratory tract: Data technically impossible to obtain.

Skin sensitisation: Sensitization - skin 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.

Other information: Information about Reaction product: Bisphenol-A-(epichlorohydrin) epoxy resin (number average molecular weight ≤ 700):
LD50 Rat, dermal > 2,000 mg/kg
LD50 Rat, oral > 2,000 mg/kg

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-(epichlorohydrin) 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)

Persistence and degradability

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

Bioaccumulative potential

Bioconcentration factor (BCF): Information about Diethylenetriamine:
Bioconcentration factor (BCF) Cyprinus carpio (Common Carp): 0.3 - 6.3
Information about Reaction product: Bisphenol-A-(epichlorohydrin) epoxy resin (number average molecular weight \leq 700): Bioconcentration factor (BCF): 31

Mobility in soil

Information about Diethylenetriamine:
Koc 19,111
Information about triethylenetetramine:
Koc 1589.4 - 19,111 (OECD 106)

Other adverse effects

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

13 Disposal considerations

Waste treatment methods

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

TDG: UN3265
IMDG, IATA-DGR: UN 3082

UN proper shipping name

TDG: UN 3265, CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. Diethylenetriamine
IMDG, IATA-DGR: UN 3082,
ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. Diethylenetriamine

Transport hazard class

TDG: 8
IMDG: Class 9, Subrisk -
IATA-DGR: Class 9

Packing group

TDG: II
IMDG, IATA-DGR: III

Environmental hazards

Marine pollutant: yes



Special precautions in connection with transport or conveyance either within or outside the premises

Canada: Transportation of Dangerous Goods (TDG)

Special Provisions: 16
Explosive limit and limited quantity index: 1 L
Passenger carrying road or rail index: 1 L

Sea transport (IMDG)

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

Air transport (IATA)

Proper shipping name: UN 3082,
ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
Diethylenetriamine
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 - 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

Further regulations, limitations and legal requirements

No data available

16 Other information

Text for labelling:	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-(epichlorohydrin) epoxy resin (number average molecular weight ≤ 700)
Revision date:	1/1/2026
Date of first version:	26/11/2014
Reason of change:	Changes in section 14: IATA-DGR 2026

Abbreviations and acronyms:

Acute Toxicity: Acute toxicity
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
DSL: Domestic Substances List
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
Sensitization - skin: Skin sensitisation
Skin Corrosion: Skin corrosion
Skin Irritation: Skin irritation
TDG: Transportation of Dangerous Goods Regulation in Canada
TLV: Threshold Limit Value
TRGS: Technical Rules for Hazardous Substances
UN: United Nations
vPvB: Very persistent and very bioaccumulative
WEL: Workplace Exposure Limit

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.