

1. Product and company identification

Product identifier

Trade name: 636W72 - CR Contact Adhesive

This safety data sheet pertains to the following products:
636W72=4 = CR Kontakklebstoff , 4 Gebinde

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

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: Form: liquid
Color: light yellow

Odor: ester-like

Classification: Flammable Liquid 2. Skin Irritation 2. Eye Irritation 2A.
Specific Target Organ Toxicity (Single Exposure) 3. Aquatic toxicity - chronic 2.

Hazard symbols:



Signal word: **Danger**

Hazard statements:

- Highly flammable liquid and vapor.
- Causes skin irritation.
- Causes serious eye irritation.
- May cause drowsiness or dizziness.
- Toxic to aquatic life with long lasting effects.

Precautionary statements:

- Avoid breathing vapors.
- Avoid release to the environment.
- Wear protective gloves/protective clothing/eye protection.
- IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- Call a POISON CENTER/doctor if you feel unwell.
- Do NOT induce vomiting.
- Store in a well-ventilated place. Keep container tightly closed.

Regulatory status

This material is considered hazardous by the WHMIS in Canada.

Hazards not otherwise classified

Potentially explosive mixtures may form if adequate ventilation is not provided.
Inhalation can lead to irritations of the respiratory tract and mucous membrane.
see section 11: Toxicological information

3. Composition / Information on ingredients

Chemical characterisation: Polychloroprene adhesive with modified synthetic resins and stabilizing agents in a mixture of organic solvent.

Relevant ingredients:

CAS No.	Designation	Concentration	Classification
CAS 64742-49-0	Naphtha (petroleum), hydrotreated light	30 - 35 %	Flammable Liquid 2. Skin Irritation 2. Aspiration Toxicity 1. Aquatic toxicity - chronic 2.
CAS 141-78-6	Ethyl acetate	20 - 25 %	Flammable Liquid 2. Eye Irritation 2A. Specific Target Organ Toxicity (Single Exposure) 3.
CAS 110-82-7	Cyclohexane	20 - 25 %	Flammable Liquid 2. Skin Irritation 2. Specific Target Organ Toxicity (Single Exposure) 3. Aspiration Toxicity 1. Aquatic toxicity - acute 1 (M-factor = 1). Aquatic toxicity - chronic 1 (M-factor = 1).
CAS 8050-09-7	Colophony	< 1 %	Sensitization - skin 1.

4. First aid measures

General information: If unconscious and breathing is OK, place in the recovery position and seek medical advice.

In case of inhalation: Provide fresh air. Seek medical attention. Move victim to fresh air; if necessary, provide artificial respiration or oxygen.

Following skin contact: Take off immediately all contaminated clothing and wash it before reuse.
After contact with skin, wash immediately with polyethylene glycol, followed by plenty of water. Follow up by applying skin cream.
Seek medical treatment in case of troubles.

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 consult an ophthalmologist.

After swallowing: Do not induce vomiting. Rinse mouth and drink large quantities of water. Never give anything by mouth to an unconscious person.
Consult physician immediately.

Most important symptoms and effects, both acute and delayed

Causes skin irritation.
Causes serious eye irritation.
May cause drowsiness or dizziness.

Information to physician

refer to section 11
Treat symptomatically.
Position and transport victim on their side. In case of respiratory distress, bring into semi-upright, seated position.

5. Fire fighting measures

Flash point/flash point range:

-18 °C (DIN 51755)

Auto-ignition temperature: No data available

Suitable extinguishing media:

Alcohol resistant foam, extinguishing powder, carbon dioxide, water spray jet, dry sand.

Extinguishing media which must not be used for safety reasons:

strong water jet

Specific hazards arising from the chemical

Highly flammable liquid and vapor. Air combined with vapors may form potentially explosive mixtures that are heavier than air. Vapors may proceed on the ground over great distances and cause fire and backflashes.

In case of fire may be liberated: Hydrogen chloride, carbon black, 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:

Heating will lead to pressure increase: Danger of bursting and explosion. Use fine water spray to cool endangered containers.

Move undamaged containers from immediate hazard area if it can be done safely.

In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion.

Do not allow fire water to penetrate into surface or ground water.

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:	Provide adequate ventilation. Eliminate all ignition sources if safe to do so. Do not breathe vapors. Avoid contact with the substance. Wear appropriate protective equipment. Keep unprotected people away. Take off immediately all contaminated clothing and wash it before reuse.
Environmental precautions:	Do not allow to enter into ground-water, surface water or drains. Danger of explosion! In case of release, notify competent authorities.
Methods for clean-up:	Isolate leaked material using non-flammable absorption agent (e.g. sand, earth, vermiculit, diatomaceous earth) and collect it for disposal in appropriate containers in accordance with the local regulations (see section 13). Beware of reignition. Thoroughly clean surrounding area. In case of greater quantities: Collect mechanically (use only explosion-proof equipment when pumping out).
Additional information:	Use explosion-proof equipment and non-sparking tools/utensils.

7. Handling and storage

Handling

Advices on safe handling:	Make sure there is sufficient air exchange and / or that working rooms are air suctioned. Do not breathe vapors. Avoid contact with skin and eyes. Wear appropriate protective equipment. Take off immediately all contaminated clothing and wash it before reuse. Guarantee sufficient ventilation during and after use, in order to prevent vapour accumulation. Have eye wash bottle or eye rinse ready at work place.
Precautions against fire and explosion:	Keep away from sources of ignition - No smoking. Take precautionary measures against static discharges. Use only explosion-protected equipment/instruments. Do not weld. In partially filled containers explosive mixtures may form.

Storage

Requirements for storerooms and containers:	Keep container tightly closed and in a well-ventilated place. Keep container dry. Keep only in the original container. Protect from heat and direct sunlight. Store containers in upright position. Explosion protection required. Recommended storage temperature: 15 - 30 °C
Hints on joint storage:	Do not store together with combustible or self-igniting materials or any highly flammable solids. Keep away from food, drink and animal feedingstuffs.
Further details:	Do not empty into drains.

8. Exposure controls / personal protection

Exposure guidelines

Occupational exposure limit values:

CAS No.	Designation	Type	Limit value
64742-49-0	Naphtha (petroleum), hydrotreated light	Canada: OEL TWA	100 ppm
141-78-6	Ethyl acetate	Canada: OEL 8 hour	1,440 mg/m ³ ; 400 ppm
		Canada: OEL TWA	150 ppm
		Canada: VEMP	1,440 mg/m ³ ; 400 ppm
110-82-7	Cyclohexane	Canada: OEL 8 hour	344 mg/m ³ ; 100 ppm
		Canada: OEL TWA	100 ppm
		Canada: VEMP	1,030 mg/m ³ ; 300 ppm
8050-09-7	Colophony	Canada: OEL TWA	0.001 mg/m ³ (inhalable fraction)
		Canada: VEMP	0.001 mg/m ³ (Aerosol, inhalable fraction)

Engineering controls

If handled uncovered, arrangements with local exhaust ventilation should be used if possible. Take precautionary measures against static discharges. Explosion protection required.

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: Flame retardant, antistatic and chemical resistant protective clothing.
protective gloves according to OSHA Standard - 29 CFR: 1910.138.
Glove material: butyl caoutchouc (butyl rubber)-Layer thickness: >=0,5 mm.
Breakthrough time >60 min.
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.
Use filter type A-P2 according to OSHA Standard - 29 CFR: 1910.134 or ANSI Z88.2.

General hygiene considerations:
Use only non-sparking tools. Keep away from sources of heat (e.g. hot surfaces), sparks and open flames.
Do not breathe vapor/aerosol. Avoid contact with skin and eyes.
Take off immediately all contaminated clothing and wash it before reuse.
When using do not eat, drink or smoke.
Wash hands before breaks and after work. Set out skin protection guidelines.
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:	Form: liquid Color: light yellow
Odor:	ester-like
Odor threshold:	No data available
pH:	not applicable
Melting point/freezing point:	No data available
Initial boiling point and boiling range:	65 °C (DIN 53171)
Flash point/flash point range:	-18 °C (DIN 51755)
Evaporation rate:	No data available
Flammability:	Highly flammable liquid and vapor.
Explosion limits:	LEL (Lower Explosion Limit): 1.00 Vol-% UEL (Upper Explosive Limit): 11.50 Vol-%
Vapor pressure:	at 20 °C: 175 hPa (DIN EN 12) at 50 °C: 950 hPa
Vapor density:	No data available
Density:	at 20 °C: 0.81 g/mL (DIN 51757)
Water solubility:	insoluble
Partition coefficient: n-octanol/water:	No data available
Auto-ignition temperature:	No data available
Thermal decomposition:	>150°C: HCl decomposition is possible.
Viscosity, dynamic:	at 20 °C: 1,200 - 3,000 mPa*s (DIN 51550)
Explosive properties:	Vapors may form explosive mixtures with air.
Ignition temperature:	260 °C (DIN 51794)
Solvent content:	79.0 %
Solid content:	21.0 %
Additional information:	flow time: > 300 (3mm) solvent separation test: < 0.1 %

10. Stability and reactivity

Reactivity:	Highly flammable liquid and vapor.
Chemical stability:	Stable under recommended storage conditions.
Possibility of hazardous reactions:	Heating will lead to pressure increase: Danger of bursting and explosion.
Conditions to avoid:	Avoid contact with air/oxygen. Keep away from heat sources, sparks and open flames. Protect from direct sunlight.
Incompatible materials:	Avoid entry of atmospheric oxygen. Avoid contact with: strong acids. Avoid contact with strong oxidizing agents.
Hazardous decomposition products:	In case of fire may be liberated: Hydrogen chloride, carbon monoxide and carbon dioxide.
Thermal decomposition:	>150°C: HCl decomposition is possible.

11. Toxicological information

Toxicological tests

Toxicological effects: The statements are derived from the properties of the single components. No toxicological data is available for the product as such.

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

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

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

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

Serious eye damage/irritation: Eye Irritation 2A = Causes serious eye irritation.

Sensitisation to the respiratory tract: Based on available data, the classification criteria are not met. (Colophony: May cause sensitization by inhalation.)

Skin sensitisation: Based on available data, the classification criteria are not met.

Contains Colophony. May produce an allergic reaction.

Germ cell mutagenicity/Genotoxicity: Based on available data, the classification criteria are not met.

Carcinogenicity: Based on available data, the classification criteria are not met.

Reproductive toxicity: Based on available data, the classification criteria are not met.

Effects on or via lactation: Lack of data.

Specific target organ toxicity (single exposure): Specific Target Organ Toxicity (Single Exposure) 3 = May cause drowsiness or dizziness.

Specific target organ toxicity (repeated exposure): Lack of data.

Aspiration hazard: Based on available data, the classification criteria are not met.

Other information: Information about Ethyl acetate:

LD50 Rat, oral: 5,600 mg/kg

LD50 Rabbit, dermal: 18,000 mg/kg

LC50 Rat, inhalative: 58 mg/L/4h

Information about Naphtha (petroleum), hydrotreated light:

LD50 Rat, oral: 5,000 mg/kg

LD50 Rabbit, dermal: 3,160 mg/kg

LC50 Rat, inhalative: 25 mg/L/4h

Information about cyclohexane:

LD50 Rat, oral: 12,705 mg/kg

LD50 Rabbit, dermal: 2,000 mg/kg

LC50 Rat, inhalative: 20 mg/L/4h

Information about Colophony:

LD50 Rat, oral: 2,000 mg/kg

LD50 Rabbit, dermal: 2,000 mg/kg

12. Ecological information

Ecotoxicity

Aquatic toxicity:

Toxic to aquatic life with long lasting effects.

Information about Ethyl acetate:

Fish toxicity:

LC50 Pimephales promelas (fathead minnow): 230 mg/L/96h

Algae toxicity:

ErC50 Scenedesmus subspicatus: 3,300 mg/L/72h

Daphnia toxicity:

EC50 Daphnia magna (Big water flea): 717 mg/L/48h

Information about Naphtha (petroleum), hydrotreated light:

Fish toxicity:

LC50: 10 mg/L/96h

Algae toxicity:

ErC50: 10 mg/L/72h

Daphnia toxicity:

EC50: 10 mg/L/48h

Information about cyclohexane:

Fish toxicity:

LC50 Leuciscus idus: 55 mg/L/96h

Algae toxicity:

ErC50 Desmodesmus subspicatus (green algae): 500 mg/L/72h

Daphnia toxicity:

EC50 Daphnia magna (Big water flea): 0.9 mg/L/48h

Mobility in soil

No data available

Persistence and degradability

Further details:

Information about Ethyl acetate:

Partition coefficient: n-octanol/water (log pOW) / Method: 0.6; Bioconcentration factor (BCF): 30

Information about Naphtha (petroleum), hydrotreated light:

Partition coefficient: n-octanol/water (log pOW) / Method: 4-5

Information about cyclohexane:

Partition coefficient: n-octanol/water (log pOW) / Method: 3.4

Poorly biodegradable.

Additional ecological information

Volatile organic compounds (VOC):

100 % by weight / 810 g/L

General information:

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

13. Disposal considerations

Product

Recommendation:

Dispose of waste according to applicable legislation.

Package

Recommendation: Waste key number 150104 - metallic packaging
Dispose of waste according to applicable legislation.
Non-contaminated packages may be recycled. Handle contaminated packages in the same way as the substance itself.

14. Transport information

UN number

ADR/RID, IMDG, IATA-DGR:

UN 1133

UN proper shipping name

ADR/RID, IATA-DGR: UN 1133, ADHESIVES

IMDG: UN 1133,
ADHESIVES (ethyl acetate, cyclohexane and Naphtha (petroleum), hydrotreated light.),
MARINE POLLUTANT

Transport hazard class(es)

ADR/RID: Class 3, Code: F1

IMDG: Class 3, Subrisk -

IATA-DGR: Class 3

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

Canada: Transportation of Dangerous Goods (TDG)

UN Number: UN1133

Shipping name: UN 1133, adhesives

TDG class: 3

Packing group: III

Explosive limit and limited quantity index: 5L

Passenger carrying road or rail index: 60L



Sea transport (IMDG)

UN number: UN 1133
 Proper shipping name: UN 1133, ADHESIVES (ethyl acetate, cyclohexane and Naphtha (petroleum), hydrotreated light.), MARINE POLLUTANT
 Class or division, Subsidiary risk: Class 3, Subrisk -
 Packing Group: III
 EmS: F-E, S-D
 Special Provisions: 223 955
 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: T2
 Tank instructions - Provisions: TP1
 Stowage and handling: Category A.
 Properties and observations: Adhesives are solutions of gums, resins, etc., usually volatile due to the solvents. Miscibility with water depends upon their composition.
 Marine pollutant: yes
 Segregation group: none

Air transport (IATA)

UN/ID number: UN 1133
 Proper shipping name: UN 1133, ADHESIVES
 Class or division, Subsidiary risk: Class 3
 Packing Group: III
 Hazard label: Flamm. liquid
 Excepted Quantity Code: E1
 Passenger and Cargo Aircraft: Ltd.Qty.: Pack.Instr. Y344 - Max. Net Qty/Pkg. 10 L
 Passenger and Cargo Aircraft: Pack.Instr. 355 - Max. Net Qty/Pkg. 60 L
 Cargo Aircraft only: Pack.Instr. 366 - Max. Net Qty/Pkg. 220 L
 Special Provisions: A3
 Emergency Response Guide-Code (ERG): 3L

15. Regulatory information

National regulations - Canada

Naphtha (petroleum), hydrotreated light: DSL: listed
 Ethyl acetate: DSL: listed
 Cyclohexane: DSL: listed
 Colophony: DSL: listed

16. Other information

Text for labeling: Contains 30 - 35 % Naphtha (petroleum), hydrotreated light, 20 - 25 % Ethyl acetate, 20 - 25 % Cyclohexane, < 1 % Colophony.
 Contains Naphtha (petroleum), hydrotreated light and cyclohexane and Ethyl acetate.

Hazard rating systems:



NFPA Hazard Rating:

Health: 2 (Moderate)
Fire: 3 (Serious)
Reactivity: 0 (Minimal)

HMIS Version III Rating:

Health: 2 (Moderate)
Flammability: 3 (Serious)
Physical Hazard: 0 (Minimal)
Personal Protection: X = Consult your supervisor

HEALTH	2
FLAMMABILITY	3
PHYSICAL HAZARD	0
	X

Abbreviations and acronyms:

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 - acute: Hazardous to the aquatic environment - acute
Aquatic toxicity - chronic: Hazardous to the aquatic environment - chronic
AS/NZS: Australian Standards/New Zealand Standards
Aspiration Toxicity: Aspiration toxicity
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 Irritation: Eye irritation
Flammable Liquid: Flammable liquid
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%
LEL: Lower Explosion Limit
log P(o/w): Partition coefficient: octanol/water
MARPOL: Maritime Pollution: The International Convention for the Prevention of Pollution from Ships
M-factor: Multiplication factor
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 Irritation: Skin irritation
STOT SE: Specific target organ toxicity - single exposure
TLV: Threshold Limit Value
TRGS: Technical Rules for Hazardous Substances
UN: United Nations
vPvB: Very persistent and very bioaccumulative
WEL: Workplace Exposure Limit
WHMIS: Workplace Hazardous Materials Information System

Reason of change: Changes in section 8: Occupational exposure limit values

Date of first version: 9/8/2002

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.