

1. Product and company identification

Product identifier

Trade name: 636K49=A - SuperGlue Part A

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

General use: Adhesive

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

Dept. 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: viscous, thixotropic

Color: white, milky

Odor: like solvent

Classification: Flammable Liquid - Category 2; Skin Irritation - Category 2; Eye Irritation - Category 2A; Sensitization - skin - Category 1; Specific Target Organ Toxicity (Single Exposure) - Category 3;

Hazard symbols:



Signal word: **Danger**

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Hazard statements: Highly flammable liquid and vapor.
 Causes skin irritation.
 May cause an allergic skin reaction.
 Causes serious eye irritation.
 May cause respiratory irritation.

Precautionary statements: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
 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.
 Store locked up.
 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

Chemical characterization: elastomer (polymer) in a flammable liquid

Relevant ingredients:

CAS No.	Designation	Content	Classification
CAS 80-62-6	Methyl methacrylate	50 - 60 %	Flammable Liquid - Category 2. Skin Irritation - Category 2. Sensitization - skin - Category 1. Specific Target Organ Toxicity (Single Exposure) - Category 3.
CAS 79-41-4	Methacrylic acid	< 5 %	Acute Toxicity - oral - Category 4. Acute Toxicity - dermal - Category 4. Skin Corrosion - Category 1A. Specific Target Organ Toxicity (Single Exposure) - Category 3.
CAS 121-44-8	Triethylamine	< 0.1 %	Flammable Liquid - Category 2. Acute Toxicity - oral - Category 4. Acute Toxicity - dermal - Category 4. Acute Toxicity - inhalative - Category 4. Skin Corrosion - Category 1A.

4. First aid measures

General information: Take off immediately all contaminated clothing.
 Call a POISON CENTER/doctor if you feel unwell.

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

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- Following skin contact: Take off immediately all contaminated clothing. After contact with skin, wash immediately with soap and plenty of water.
In case of skin irritation, consult a physician.
- 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. Consult an ophthalmologist.
- After swallowing: Do not induce vomiting. Never give anything by mouth to an unconscious person. Drink large quantities of water. Immediately get medical attention.

Most important symptoms/effects, acute and delayed

- In case of inhalation:
After intake of large amounts: nausea, dizziness, headache, mucous membrane irritation
In case of ingestion: nausea, vomiting, diarrhea
After contact with skin: skin rash
After eye contact: Causes serious eye irritation.

Information to physician

Treat symptomatically.

5. Fire fighting measures

- Flash point/flash point range: 52.7 °F (T.C.C.)
Auto-ignition temperature: 789.8 °F
Suitable extinguishing media: Foam, dry chemical powder, carbon dioxide, water mist
Extinguishing media which must not be used for safety reasons: Full water jet

Specific hazards arising from the chemical

Highly flammable liquid and vapor. Concentrated vapors are heavier than air.
Air combined with vapors may form potentially explosive mixtures that are heavier than air.
Vapor may travel great distances and cause fire and backflashes.
In case of fire may be liberated: Smoke, hydrocarbons, nitrogen oxides (NOx), hydrogen chloride, 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: Heating will lead to pressure increase: Danger of bursting and explosion. Cool exposed containers with water spray.
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.

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6. Accidental release measures

Personal precautions:	Do not breathe vapors. Avoid contact with the substance. Eliminate all ignition sources if safe to do so. Provide adequate ventilation. Wear appropriate protective equipment. Keep unprotected people away. Cordon off downwind area at risk and warn inhabitants.
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: Provide adequate ventilation, and local exhaust as needed. Do not breathe vapors. Avoid contact with skin and eyes. Wear appropriate protective equipment. Guarantee sufficient ventilation during and after use, in order to prevent vapour accumulation.

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 - 20 °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.
Do not store together with: alkalis, acids, halogens, strong oxidizing agents, isocyanates, ammonia

8. Exposure controls / personal protection

Exposure guidelines

Occupational exposure limit values:

CAS No.	Designation	Type	Limit value
80-62-6	Methyl methacrylate	USA: ACGIH: STEL	410 mg/m ³ ; 100 ppm
		USA: ACGIH: TWA	205 mg/m ³ ; 50 ppm
		USA: NIOSH: TWA	410 mg/m ³ ; 100 ppm
		USA: OSHA: TWA	410 mg/m ³ ; 100 ppm
79-41-4	Methacrylic acid	USA: ACGIH: TWA	70 mg/m ³ ; 20 ppm
		USA: NIOSH: TWA	70 mg/m ³ ; 20 ppm
121-44-8	Triethylamine	USA: ACGIH: STEL	1 ppm
		USA: ACGIH: TWA	0.5 ppm
		USA: OSHA: TWA	100 mg/m ³ ; 25 ppm

Engineering controls

Provide for good ventilation or exhaust system or work with completely self-contained equipment. 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: When handling larger quantities: face protection, rubber boots and rubber apron.
 Protective gloves according to OSHA Standard - 29 CFR: 1910.138.
 Glove material: butyl caoutchouc (butyl rubber)-Layer thickness 0,7 mm.
 Breakthrough time > 60 min.
 Observe glove manufacturer's instructions concerning penetrability and breakthrough time.

Respiratory protection: The filter class must be suitable for the maximum contaminant concentration (gas/vapor/aerosol/particulates) that may arise when handling the product. If the concentration is exceeded, closed-circuit breathing apparatus must be used!

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 or spray. Avoid contact with skin and eyes.

Take off immediately all contaminated clothing.

When using do not eat, drink or smoke.

Wash hands before breaks and after work.

9. Physical and chemical properties

Information on basic physical and chemical properties

Appearance: Physical state at 68 °F and 101.3 kPa: liquid
 Form: viscous, thixotropic
 Color: white, milky

Odor: like solvent

Odor threshold: 0,75 ppm

pH value: No data available

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Melting point/freezing point:	No data available
Initial boiling point and boiling range:	122 - 302 °F
Flash point/flash point range:	52.7 °F (T.C.C.)
Evaporation rate:	No data available
Flammability:	Highly flammable liquid and vapor.
Explosion limits:	LEL (Lower Explosion Limit): 1.50 Vol-% UEL (Upper Explosive Limit): 12.50 Vol-%
Vapor pressure:	at 68 °F: 3.7 kPa
Vapor density:	>= 3.0
Density:	No data available
Water solubility:	insoluble
Partition coefficient: n-octanol/water:	No data available
Auto-ignition temperature:	789.8 °F
Thermal decomposition:	No data available
Additional information:	relative density 77 °F: 0,95 - 1,10

10. Stability and reactivity

Reactivity:	Highly flammable liquid and vapor. Concentrated vapors are heavier than air. Methyl methacrylate: Explosive mixtures with air may even form at room temperature.
Chemical stability:	Stable under recommended storage conditions. Danger of polymerisation
Possibility of hazardous reactions	Exceeding storage duration or storage temperature can cause polymerization.
Conditions to avoid:	Keep away from heat sources, sparks and open flames. Protect from: UV-radiation/sunlight
Incompatible materials:	Do not store together with: alkalis, acids, halogens, strong oxidizing agents, isocyanates, ammonia
Hazardous decomposition products:	In case of fire may be liberated: Smoke, hydrocarbons, nitrogen oxides (NOx), hydrogen chloride, carbon monoxide and carbon dioxide.
Thermal decomposition:	No data available

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 - 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): Specific Target Organ Toxicity (Single Exposure) - Category 3 = May cause respiratory irritation.

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

Aspiration hazard: Lack of data.

Other information: Following information applies to the component Methyl methacrylate:

LD50 Rat, oral: > 5000 mg/kg
 LC50 Rat, inhalative: 7093 ppm/4h = 29,8 mg/L
 LD50 Rabbit, dermal: >5000 mg/kg

Following information applies to the component Triethylamine:

LD50 Rat, oral: 460 mg/kg
 LC50 Rat, dermal: 415 mg/kg

Following information applies to the component Methacrylic acid:

LD50 Rat, oral: 1600 mg/kg
 LC50 Rat, inhalative: = 6,7 mg/L
 LD50 Rabbit, dermal: 500 mg/kg

Symptoms

In case of inhalation:
 After intake of large amounts: nausea, dizziness, headache, mucous membrane irritation

In case of ingestion: nausea, vomiting, diarrhea

After contact with skin: skin rash

After eye contact: Causes serious eye irritation.

12. Ecological information

Ecotoxicity

Aquatic toxicity: Following information applies to the component Methyl methacrylate:

Algae toxicity:

EC3 Scenedesmus quadricauda: 37mg/L, 8d (DIN 38412 T.9)

Bacterial toxicity:

EC0 Pseudomonas putida: 100 mg/L

Daphnia toxicity:

EC50 Daphnia magna: 69mg/L, 48h (OECD 202)

NOEL Daphnia magna: 37mg/L, 21d (OECD 202/2)

Fish toxicity:

LC50 Oncorhynchus mykiss >79 mg/L, 96h (OECD 203)

Mobility in soil

No data available

Persistence and degradability

Further details: Product is biodegradable.

Additional ecological information

Volatile organic compounds (VOC):

< 20 g/L

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.

Contaminated packaging

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

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14. Transport information

USA: Department of Transportation (DOT)

Identification number: UN1133
 Proper shipping name: UN 1133, UN 1133, adhesives
 Hazard class or Division: 3
 Packing Group: II
 Labels: 3
 Special provisions: 149, B52, IB2, T4, TP1, TP8
 Packaging – Exceptions: 150
 Packaging – Non-bulk: 173
 Packaging – Bulk: 242
 Quantity limitations – Passenger aircraft / rail: 5 L
 Quantity limitations – Cargo only: 60 L
 Vessel stowage – Location: B
 Vessel stowage – Other:



Sea transport (IMDG)

UN number: UN 1133
 Proper shipping name: UN 1133, Adhesives
 Class or division, Subsidiary risk: Class 3, Subrisk -
 Packing Group: II
 EmS: F-E, S-D
 Special provisions: -
 Limited quantities: 5 L
 Excepted quantities: E2
 Contaminated packaging - Instructions: P001
 Contaminated packaging - Provisions: PP1
 IBC - Instructions: IBC02
 IBC - Provisions: -
 Tank instructions - IMO: -
 Tank instructions - UN: T4
 Tank instructions - Provisions: TP1, TP8
 Stowage and handling: Category B.
 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: no
 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: II
 Hazard label: Flamm. liquid
 Excepted Quantity Code: E2
 Passenger and Cargo Aircraft: Ltd.Qty.: Pack.Instr. Y341 - Max. Net Qty/Pkg. 1 L
 Passenger and Cargo Aircraft: Pack.Instr. 353 - Max. Net Qty/Pkg. 5 L
 Cargo Aircraft only: Pack.Instr. 364 - Max. Net Qty/Pkg. 60 L
 Special provisions: A3
 Emergency Response Guide-Code (ERG): 3L

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15. Regulatory information**National regulations - U.S. Federal Regulations**

Methyl methacrylate:	TSCA Inventory: listed; EPA flags T TSCA HPVC: not listed TSCA: listed - Flags: T Carcinogen Status: IARC Rating: Group 3 OSHA Carcinogen: not listed NTP Rating: not listed Clean Air Act: Hazardous Air Pollutants: Code XO SOCMI Chemical: yes Clean Water Act: Hazardous Substances: RQ 1000 lbs. Other Environmental Laws: CERCLA: RQ 1000 lbs. RCRA Hazardous Wastes: Code U162 RCRA Groundwater Monitoring: Methods 8015, 8240 / PQL 2, 5 SARA Title III Section 313, Toxic Release: Conc. 1.0% / Threshold Standard NIOSH Recommendations: Occupational Health Guideline: 0426
Methacrylic acid:	TSCA: listed Clean Air Act: SOCMI Chemical: yes NIOSH Recommendations: Occupational Health Guideline: 0386*
Triethylamine:	TSCA Inventory: listed TSCA HPVC: not listed Clean Air Act: Hazardous Air Pollutants: Code XO SOCMI Chemical: yes Clean Water Act: Hazardous Substances: RQ 5000 lbs. Other Environmental Laws: CERCLA: RQ 5.000 lbs. RCRA Hazardous Wastes: Code U404 SARA Title III Section 313, Toxic Release: Conc. 1.0% / Threshold Standard NIOSH Recommendations: Occupational Health Guideline: 0633

National regulations - U.S. State Regulations

Methyl methacrylate: Delaware Air Quality Management List:
 DRQ: 1000 - RQ State: Federal Regulations Apply
 Idaho Air Pollutant List:
 Title 585; AAC: 20,5 - EL: 27,3 - OEL: 410 - Title 586: -
 Massachusetts Haz. Substance Codes: 2,4,5,6 F8 F9
 Main: HAP - 2000
 Minnesota Haz. Substance:
 Codes: AO - Ratings: 3.79 - Status: Air Pollutant. Title III. TRI.
 New Jersey RTK Hazardous Substance:
 DOT: 1247 - Sub No.: 1277
 New York List of Hazardous Substances:
 RQ-Air: 1000 - RQ-Land: 1
 No Note Associated with this chemical
 Pennsylvania Haz. Substance Code: E
 Washington Air Contaminant: TWA: 100 ppm = 410 mg

Methacrylic acid: Idaho Air Pollutant List:
 Title 585 -- AAC: 3.5 -- EL: 4.67 -- WEL: 70 - Title 586 -
 Massachusetts Haz. Substance codes: 4,5,6
 Minnesota Haz. Substance: Codes: A -- Ratings: -
 Pennsylvania Haz. Substance code: -
 Washington Air Contaminant:
 TWA: 20 ppm - 70 mg
 Skin: Protective measures should be taken to prevent or reduce skin absorption.

National regulations - Great Britain

Hazchem-Code: •3YE

16. Other information

Text for labeling: Contains 50 - 60 % Methyl methacrylate, < 5 % Methacrylic acid, < 0.1 % Triethylamine. Safety data sheet available on request.

Hazard rating systems:



NFPA Hazard Rating:
 Health: 2 (Moderate)
 Fire: 3 (Serious)
 Reactivity: 2 (Moderate)

HMIS Version III Rating:
 Health: 2 (Moderate)
 Flammability: 3 (Serious)
 Physical Hazard: 2 (Moderate)
 Personal Protection: X = Consult your supervisor

HEALTH	2
FLAMMABILITY	3
PHYSICAL HAZARD	2
	X

Reason of change: Changes in section 1.3: Corporate headquarters
 Date of first version: 9/18/2015

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.