

1. Product and company identification

Product identifier

Trade name: 636K17 - OTTO BOCK Light Putty

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

General use: Filling compound 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: viscous liquid

Color: Light gray

Odor: Characteristic

Classification: Flammable Liquid - Category 2. Skin Irritation - Category 2. Eye Irritation - Category 2A. Respiratory Sensitizer - Category 1. Sensitization - skin - Category 1. Reproductive toxicant - Category 2. Specific Target Organ Toxicity (Single Exposure) - Category 3. Specific Target Organ Toxicity (Repeated Exposure) - Category 1. Aquatic toxicity - chronic - Category 3.

Hazard symbols:



Signal word:

Danger

Hazard statements:

Highly flammable liquid and vapor.
Causes skin irritation.
May cause an allergic skin reaction.
Causes serious eye irritation.
May cause allergy or asthma symptoms or breathing difficulties if inhaled.
May cause respiratory irritation.
Suspected of damaging the unborn child.
Causes damage to organs through prolonged or repeated exposure.
Harmful to aquatic life with long lasting effects.

Precautionary statements:

Obtain special instructions before use.
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
Ground/bond container and receiving equipment.
Use explosion-proof equipment.
Use only non-sparking tools.
Take precautionary measures against static discharge.
Do not breathe vapors.
Wash hands and face thoroughly after handling.
Do not eat, drink or smoke when using this product.
Use only outdoors or in a well-ventilated area.
Contaminated work clothing should not be allowed out of the workplace.
Avoid release to the environment.
Wear protective gloves/protective clothing/eye protection/face protection.
In case of inadequate ventilation wear respiratory protection.
IF ON SKIN: Wash with plenty of water/soap.
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/or shower.
IF INHALED: Remove person to fresh air and keep comfortable for breathing.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
IF exposed or concerned: Get medical advice/attention.
Call a POISON CENTER/doctor if you feel unwell.
Specific treatment (see 'First aid' on this label).
If skin irritation or rash occurs: Get medical advice/attention.
If eye irritation persists: Get medical advice/attention.
If experiencing respiratory symptoms: Call a POISON CENTER/doctor.
Take off contaminated clothing and wash it before reuse.
In case of fire: Use sand, dry chemical powder, carbon dioxide to extinguish.
Store in a well-ventilated place. Keep container tightly closed.
Store in a well-ventilated place. Keep cool.
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).

Hazards not otherwise classified

The vapors are heavier than air and can accumulate in high concentrations on the ground, in cavities, channels and cellars.

Potentially explosive vapor/air mixtures may form. Can damage your health.

Special danger of slipping by leaking/spilling product.

see section 11: Toxicological information

3. Composition / Information on ingredients

Chemical characterization: Filling compound based on unsaturated polyester resins dissolved in styrene.

Relevant ingredients:

CAS No.	Designation	Concentration	Classification
CAS 100-42-5	Styrene	25 - 50 %	Flammable Liquid - Category 3. Acute Toxicity - inhalative - Category 4. Skin Irritation - Category 2. Eye Irritation - Category 2A. Reproductive toxicant - Category 2. Specific Target Organ Toxicity (Single Exposure) - Category 3. Specific Target Organ Toxicity (Repeated Exposure) - Category 1. Aspiration Toxicity - Category 1. Aquatic toxicity - chronic - Category 3.
CAS 13463-67-7	Titanium dioxide	1 - 5 %	Carcinogenicity - Category 2.
CAS 38668-48-3	1,1'-(p-Tolylimino) dipropan-2-ol	< 1 %	Acute Toxicity - oral - Category 2. Eye Irritation - Category 2A. Aquatic toxicity - acute - Category 3. Aquatic toxicity - chronic - Category 3.
CAS 75-28-5	Isobutane	< 1 %	Flammable Gas - Category 1A. Compressed Gas.
CAS 108-88-3	Toluene	< 1 %	Flammable Liquid - Category 2. Skin Irritation - Category 2. Eye Irritation - Category 2A. Reproductive toxicant - Category 2. Specific Target Organ Toxicity (Single Exposure) - Category 3. Specific Target Organ Toxicity (Repeated Exposure) - Category 2. Aspiration Toxicity - Category 1. Aquatic toxicity - chronic - Category 3.
CAS 67-56-1	Methanol	< 1 %	Flammable Liquid - Category 2. Acute Toxicity - oral - Category 3. Acute Toxicity - dermal - Category 3. Acute Toxicity - inhalative - Category 3. Specific Target Organ Toxicity (Single Exposure) - Category 1.
CAS 108-31-6	Maleic anhydride	< 1 %	Acute Toxicity - oral - Category 4. Skin Corrosion - Category 1B. Eye Damage - Category 1. Respiratory Sensitizer - Category 1. Sensitization - skin - Category 1A. Specific Target Organ Toxicity (Repeated Exposure) - Category 1.

4. First aid measures

General information:	Take off contaminated clothing and wash it before reuse. First aider: Pay attention to self-protection! If medical advice is needed, have product container or label at hand.
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:	Immediately clean with water and soap followed by thorough rinsing. In case of skin reactions, 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. Subsequently consult an ophthalmologist.
After swallowing:	Rinse mouth immediately and drink plenty of water. Do not induce vomiting. Never give anything by mouth to an unconscious person. Seek medical attention.

Most important symptoms/effects, acute and delayed

Sweating, shortage of breath, drowsiness, headache, dizziness, nausea.

Information to physician

Symptoms of poisoning can only emerge after several hours; medical supervision is therefore essential for at least 48 hours.

In case of swallowing, gastric irrigation with activated carbon as an additive.

5. Fire fighting measures

Flash point/flash point range:	50 °F
Auto-ignition temperature:	Not self-igniting
Suitable extinguishing media:	Sand, dry chemical powder, carbon dioxide.
Extinguishing media which must not be used for safety reasons:	Water, full 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.
May form dangerous gases and vapors in case of fire.
Furthermore, there may develop: Nitrogen oxides (NOx), hydrogen cyanide, carbon monoxide and carbon dioxide.

Protective equipment and precautions for firefighters:

Wear a self-contained breathing apparatus and chemical protective clothing.

Additional information:

Do not inhale explosion and combustion gases. Heating will lead to pressure increase: Danger of bursting and explosion. Keep containers cool with water spray.
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:	Avoid exposure. Do not breathe vapors. Avoid contact with the substance. Eliminate all ignition sources if safe to do so. If possible, eliminate leakage. Provide adequate ventilation. Wear appropriate protective equipment. Keep unprotected people away. Cordon off downwind area at risk and warn inhabitants. Take off 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. Do not remove residual product with water and detergent. In case of greater quantities: Collect mechanically (use only explosion-proof equipment when pumping out). Never return spills in original containers for re-use.
Additional information:	Use explosion-proof equipment and non-sparking tools/utensils. Special danger of slipping by leaking/spilling product.

7. Handling and storage

Handling

Advices on safe handling:	Obtain special instructions before use. Provide adequate ventilation, and local exhaust as needed. Do not breathe vapors. Do not get in eyes, on skin, or on clothing. Wear appropriate protective equipment. Guarantee sufficient ventilation during and after use, in order to prevent vapor accumulation. Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling. Take off contaminated clothing and wash it before reuse. Work place should be equipped with a shower and an eye rinsing apparatus.
Precautions against fire and explosion:	Keep away from sources of ignition - No smoking. Take precautionary measures against static discharge. 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. Protect from frost.
Hints on joint storage:	Keep away from peroxides, radical formers, alcohols, acids, alkalis, amines and 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
100-42-5	Styrene	USA: ACGIH: STEL	20 ppm
		USA: ACGIH: TWA	10 ppm
		USA: IDLH: TWA	700 ppm
		USA: NIOSH: STEL	425 mg/m ³ ; 100 ppm
		USA: NIOSH: TWA	215 mg/m ³ ; 50 ppm
		USA: OSHA: Ceiling	200 ppm
		USA: OSHA: TWA	100 ppm
13463-67-7	Titanium dioxide	USA: ACGIH: TWA	0.2 mg/m ³ (nanoparticle, respirable fraction)
		USA: ACGIH: TWA	2.5 mg/m ³ (Fine dust, respirable fraction)
		USA: IDLH: TWA	5,000 mg/m ³
		USA: OSHA: TWA	15 mg/m ³ (total dust)
75-28-5	Isobutane	USA: ACGIH: TWA	1,000 ppm
		USA: NIOSH: TWA	1,900 mg/m ³ ; 800 ppm
108-88-3	Toluene	USA: ACGIH: TWA	20 ppm
		USA: IDLH: TWA	500 ppm
		USA: NIOSH: STEL	560 mg/m ³ ; 150 ppm
		USA: NIOSH: TWA	375 mg/m ³ ; 100 ppm
		USA: OSHA: Ceiling	500 ppm
		USA: OSHA: STEL	300 ppm
67-56-1	Methanol	USA: OSHA: TWA	200 ppm
		USA: ACGIH: STEL	328 mg/m ³ ; 250 ppm (may be absorbed through the skin)
		USA: ACGIH: TWA	262 mg/m ³ ; 200 ppm (may be absorbed through the skin)
		USA: IDLH: TWA	6,000 ppm
		USA: NIOSH: STEL	325 mg/m ³ ; 250 ppm (may be absorbed through the skin)
		USA: NIOSH: TWA	260 mg/m ³ ; 200 ppm (may be absorbed through the skin)
		USA: OSHA: TWA	260 mg/m ³ ; 200 ppm
108-31-6	Maleic anhydride	USA: ACGIH: TWA	0.01 mg/m ³ ; 0.0025 ppm (inhalable fraction and vapor)
		USA: IDLH: TWA	10 mg/m ³
		USA: NIOSH: TWA	0.25 mg/m ³ ; 1 ppm
		USA: OSHA: TWA	1 mg/m ³ ; 0.25 ppm

Biological limit values:

CAS No.	Designation	Type	Limit value	Parameter	Sampling
100-42-5	Styrene	USA: ACGIH-BEI, urine	150 mg/g creatinine	Mandelic acid + Phenylglyoxylic acid	end of exposure or end of shift
		USA: ACGIH-BEI, urine	20 µg/L	Styrene in urine	end of exposure or end of shift
108-88-3	Toluene	USA: ACGIH-BEI, blood	0.02 mg/L	Toluene in blood	Prior to last shift of workweek
		USA: ACGIH-BEI, urine	0.03 mg/L	Toluene in urine	end of exposure or end of shift
		USA: ACGIH-BEI, urine	0.3 mg/g creatinine	o-Cresol in urine	end of exposure or end of shift
67-56-1	Methanol	USA: ACGIH-BEI, urine	15 mg/L	Methanol	end of exposure or end of shift

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: Flame retardant, antistatic and chemical resistant protective clothing.
Protective gloves according to OSHA Standard - 29 CFR: 1910.138.
Breakthrough time: 480 min
Permanent contact - Glove material: Fluororubber (Viton)
Splash guard -
Glove material: Fluororubber (Viton), nitrile rubber, butyl caoutchouc (butyl 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.
Short-term: Use filter apparatus type A/P2.
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, self-contained breathing apparatus must be used.

General hygiene considerations:
Obtain special instructions before use. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
Do not breathe vapors. Do not get in eyes, on skin, or on clothing. Take off contaminated clothing and wash it before reuse.
Contaminated work clothing should not be allowed out of the workplace.
Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling.
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: viscous liquid Color: Light gray
Odor:	Characteristic
Odor threshold:	No data available
pH:	No data available
Melting point/freezing point:	No data available
Initial boiling point and boiling range:	293 °F
Flash point/flash point range:	50 °F
Evaporation rate:	No data available
Flammability:	Highly flammable liquid and vapor.
Explosion limits:	LEL (Lower Explosion Limit): 1.20 Vol-% UEL (Upper Explosive Limit): 8.90 Vol-%
Vapor pressure:	at 68 °F: 6 hPa
Vapor density:	No data available
Density:	at 68 °F: 0.71 g/mL
Water solubility:	Immiscible resp. slightly miscible
Partition coefficient: n-octanol/water:	No data available
Auto-ignition temperature:	Not self-igniting
Thermal decomposition:	No data available
Explosive properties:	Product is not explosive. Vapors may form explosive mixtures with air.
Ignition temperature:	896 °F
Solvent content:	27.1 %
Solid content:	71.6 %

10. Stability and reactivity

Reactivity:	Highly flammable liquid and vapor. Vapors may form explosive mixtures with air.
Chemical stability:	Stable under recommended storage conditions.
Possibility of hazardous reactions:	Heating will lead to pressure increase: Danger of bursting and explosion. Polymerization along with heat production. Reacts with peroxides, radical formers, alcohols, acids, alkalis, amines.
Conditions to avoid:	Keep away from heat sources, sparks and open flames. Protect from direct sunlight. Protect from frost.
Incompatible materials:	Peroxides, radical former, alcohols, acids, alkalis, amines and oxidizing agents.
Hazardous decomposition products:	No hazardous decomposition products when regulations for storage and handling are observed.
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.

ATEmix (calculated): > 3,500 mg/kg

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

ATEmix (calculated): > 5,000 mg/kg

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

ATE: 44.2 mg/L/4h

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: Respiratory Sensitizer -

Category 1 = May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Skin sensitisation: Sensitization - skin - Category 1 = May cause an allergic skin 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: Reproductive toxicant -

Category 2 = Suspected of damaging the unborn child.

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): Specific Target Organ Toxicity (Repeated Exposure) -

Category 1 = Causes damage to organs through prolonged or repeated exposure. (Auditory organs)

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

Other information:

Information about Styrene:

LD50 Rat, oral: > 2,000 mg/kg

LD50 Rat, dermal: > 2,000 mg/kg (OECD 402)

LC50 Rat, inhalative (vapor): 11.8 mg/L/4h

Human experience: Metabolization of styrene in the body via styrene-7,8-oxide to mandelic acid and phenylglyoxyl acid.

Information about 1,1'-(p-Tolylimino)dipropen-2-ol:

LD50 Rat, oral: > 25 - < 200 mg/kg (OECD 423)

LD50 Rat, dermal: > 2,000 mg/kg (OECD 402)

Information about Methanol:

LD50 Rat, oral: 100 mg/kg

LD50 Rabbit, dermal: 15,800 mg/kg

LC50 Rat, inhalative (vapor): 128.2 mg/L/4h

Information about Maleic anhydride:

LD50 Rat, oral: 400 - 480 mg/kg

LD50 Rabbit, dermal: 2,620 mg/kg

LC50 Rat, inhalative: > 4.35 mg/L/1h

Carcinogenic effect:

Information about Styrene:

IARC Rating: Group 2A

OSHA Carcinogen: not listed

NTP Rating: listed

Symptoms

In case of inhalation:

Depression of central nervous system, fatigue, nausea, dizziness, lung damages.

Reaction time and coordination may be impaired.

In case of ingestion: If swallowed or in the event of vomiting, risk of entering the lungs.

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

12. Ecological information

Ecotoxicity

Aquatic toxicity: Harmful to aquatic life with long lasting effects.

Information about Styrene:

Fish toxicity: Pimephales promelas (fathead minnow)

LC50: 10 mg/L/96h

Daphnia toxicity: Daphnia magna (Big water flea)

EC50: 4.7 mg/L/48h

NOEC: 1.9 mg/L/48h

Algae toxicity: Pseudokirchneriella subcapitata (green algae)

EC50: 4.9 mg/L/72h

Bacteria toxicity: Activated sludge

EC50: 500 mg/L/30min

Information about 1,1'-(p-Tolylimino)dipropen-2-ol:

Fish toxicity: Danio rerio (zebrafish)

LC50: 17 mg/L/96h

Daphnia toxicity: Daphnia magna (Big water flea)

EC50: 28.8 mg/L/48h

Algae toxicity: Desmodesmus subspicatus (green algae)

EC50: 245 mg/L/72h

NOEC: 57.8 mg/L/72h

Bacteria toxicity: Activated sludge

EC10: > 1,995 mg/L/30min

Information about Toluene:

Fish toxicity: Oncorhynchus mykiss

LC50: 5.8 - 17 mg/L/96h

Daphnia toxicity: Daphnia magna (Big water flea)

EC50: 5.46 - 11.5 mg/L/48h

Algae toxicity: Pseudokirchneriella subcapitata (green algae)

EC50: 12.5 mg/L/72h

Bacteria toxicity: Activated sludge

EC50: 84 mg/L/24h

Mobility in soil

No data available

Persistence and degradability

Further details: No data available

Additional ecological information

Volatile organic compounds (VOC):

0.74 % by weight / 194.7 g/L

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

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 1993

UN proper shipping name

ADR/RID, IMDG, IATA-DGR:

UN 1993, FLAMMABLE LIQUID, N.O.S. (Styrene and Isobutane)

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:

II

Environmental hazards

Marine pollutant: no

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

No data available

USA: Department of Transportation (DOT)

Identification number: UN1993
 Proper shipping name: UN 1993, FLAMMABLE LIQUIDS, N.O.S. (Styrene and Isobutane)
 Hazard class or Division: 3
 Packing Group: II
 Labels: 3
 Symbols: G
 Special Provisions: IB2, T7, TP1, TP8, TP28
 Packaging – Exceptions: 150
 Packaging – Non-bulk: 202
 Packaging – Bulk: 242
 Quantity limitations – Passenger aircraft / rail: 5 L
 Quantity limitations – Cargo only: 60 L
 Vessel stowage – Location: B



Sea transport (IMDG)

UN number:	UN 1993
Proper shipping name::	UN 1993, FLAMMABLE LIQUID, N.O.S. (Styrene and Isobutane)
Class or division, Subsidiary risk:	Class 3, Subrisk -
Packing Group:	II
EmS:	F-E, S-E
Special Provisions:	274
Limited quantities:	1 L
Excepted quantities:	E2
Package - Instructions:	P001
Package - Provisions:	-
IBC - Instructions:	IBC02
IBC - Provisions:	-
Tank instructions - IMO:	-
Tank instructions - UN:	T7
Tank instructions - Provisions:	TP1, TP8, TP28
Stowage and handling:	Category B.
Properties and observations:	-
Marine pollutant:	no
Segregation group:	none

Air transport (IATA)

UN/ID number:	UN 1993
Proper shipping name::	UN 1993, FLAMMABLE LIQUID, N.O.S. (Styrene and Isobutane)
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):	3H

15. Regulatory information

National regulations - U.S. Federal Regulations

Styrene:	<p>TSCA Inventory: listed</p> <p>Carcinogen Status:</p> <p>IARC Rating: Group 2A</p> <p>OSHA Carcinogen: not listed</p> <p>NTP Rating: listed</p> <p>Clean Air Act:</p> <p>CAA Hazardous Air Pollutants: yes</p> <p>CAA SOCM Chemical: yes</p> <p>Clean Water Act:</p> <p>CWA Hazardous Substances: RQ 1000 lbs.</p> <p>Other Environmental Laws:</p> <p>CERCLA: RQ 1000 lbs.</p> <p>RCRA Groundwater Monitoring: Methods 8020, 8240 / PQL 1, 5</p> <p>SARA Title III - Section 313, Toxic Release: Conc. 0.1% / Threshold Standard</p> <p>NIOSH Recommendations:</p> <p>Occupational Health Guideline: 0571</p>
Titanium dioxide:	<p>TSCA Inventory: listed</p> <p>Carcinogen Status:</p> <p>IARC Rating: Group 2B</p> <p>OSHA Carcinogen: not listed</p> <p>NTP Rating: not listed</p> <p>NIOSH Recommendations:</p> <p>Occupational Health Guideline: 0617</p>
1,1'-(p-Tolylimino)dipropen-2-ol:	TSCA Inventory: listed
Isobutane:	<p>TSCA Inventory: listed</p> <p>Clean Air Act:</p> <p>CAA Accidental Release Prevention: Threshold 10000 lbs. / Basis for listing = f</p> <p>NIOSH Recommendations:</p> <p>Occupational Health Guideline: 0350*</p>

Toluene:

TSCA Inventory: listed

Carcinogen Status:

IARC Rating: Group 3

OSHA Carcinogen: not listed

NTP Rating: not listed

Clean Air Act:

CAA Hazardous Air Pollutants: yes

CAA SOCM I Chemical: yes

Clean Water Act:

CWA Hazardous Substances: RQ 1000 lbs.

CWA Priority Pollutants: yes

Other Environmental Laws:

CERCLA: RQ 1000 lbs.

RCRA Hazardous Wastes: Code U220

RCRA Groundwater Monitoring: Methods 8020, 8240 / PQL 2, 5

SARA Title III - Section 313, Toxic Release: Conc. 1.0% / Threshold Standard

NIOSH Recommendations:

Occupational Health Guideline: 0619

Methanol:

TSCA Inventory: listed

Clean Air Act:

CAA Hazardous Air Pollutants: yes

CAA SOCM I Chemical: yes

Other Environmental Laws:

CERCLA: RQ 5000 lbs.

RCRA Hazardous Wastes: Code U154

SARA Title III - Section 313, Toxic Release: Conc. 1.0% / Threshold Standard

NIOSH Recommendations:

Occupational Health Guideline: 0397

Maleic anhydride:

TSCA Inventory: listed

Clean Air Act:

CAA Hazardous Air Pollutants: yes

CAA SOCM I Chemical: yes

Clean Water Act:

CWA Hazardous Substances: RQ 5000 lbs.

Other Environmental Laws:

CERCLA: RQ 5000 lbs.

RCRA Hazardous Wastes: Code U147

SARA Title III - Section 313, Toxic Release: Conc. 1.0% / Threshold Standard

NIOSH Recommendations:

Occupational Health Guideline: 0376

National regulations - U.S. State Regulations

Styrene:	<p>California Proposition 65: cancer</p> <p>Delaware Air Quality Management List: DRQ: 1000 - RQ State: Federal Regulations Apply</p> <p>Idaho Air Pollutant List: Title 585 -- AAC: 1 -- EL: 6.67 -- WEL: - Title 586 -</p> <p>Maine Hazardous Air Pollutants: Me 2005: HAP - Hap Rpt: 2000</p> <p>Massachusetts Haz. Substance codes: 1,2,4,5,6,9 *E*C* F7 F8</p> <p>Michigan Critical Material: Note: 2 - CMR#: 27 - Parameter#: 00100-42-5 - Annual Usage Parameter: 100</p> <p>Minnesota Haz. Substance: Codes: ANO -- Ratings: 9.63 -- Status: Air Pollutant. Carcinogen. Title III. TRI.</p> <p>New Jersey RTK Hazardous Substance: DOT 2055 - Sub No.: 1748 - TPQ: -</p> <p>New York List of Hazardous Substances: RQ -- Air: 1000 - RQ -- Land: 1 - Note: No Note Associated with this chemical.</p> <p>Pennsylvania Haz. Substance code: E</p> <p>Washington Air Contaminant: TWA: 50 ppm / 215 mg -- STEL: 100 ppm / 425 mg</p>
Toluene:	California Proposition 65: developmental
Methanol:	<p>California Proposition 65: developmental</p> <p>Delaware Air Quality Management List: DRQ: 5000 - RQ State: Federal Regulations Apply</p> <p>Idaho Air Pollutant List: Title 585: AAC: 13 - EL: 17,3 - OEL: 260 - Title 586: -</p> <p>Main Hazardous Air Pollutants: Me 2005: HAP - Hap Rpt: 2000</p> <p>Massachusetts Haz. Substance codes: 2,4,5,6 F8 F9</p> <p>Minnesota Haz. Substance: Codes: ANO - Ratings: 7,5 - Status: Air Pollutant Title III. TRI.</p> <p>New Jersey RTK Hazardous Substance: DOT: 1230 - Sub No.: 1222 - TPQ: -</p> <p>New York List of Hazardous Substances: RQ-Air: 5000 - RQ-Land: 1 - Note: No Note Associated with this chemical.</p> <p>Pennsylvania Haz. Substance code: E</p> <p>Washington Air Contaminant: TWA: 200 ppm - 260 mg - STEL: 250 ppm - 325 mg Skin: Protective measures should be taken to prevent or reduce skin absorption.</p>

16. Other information

Text for labeling:	<p>Contains 25 - 50 % Styrene, 1 - 5 % Titanium dioxide, < 1 % 1,1'-(p-Tolylimino)dipropen-2-ol, < 1 % Isobutane, < 1 % Toluene, < 1 % Methanol, < 1 % Maleic anhydride.</p>
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Hazard rating systems:



NFPA Hazard Rating:

Health: 2 (Moderate)

Fire: 3 (Serious)

Reactivity: 0 (Minimal)

HMIS Version III Rating:

Health: 2 (Moderate) - Chronic effects

Flammability: 3 (Serious)

Physical Hazard: 0 (Minimal)

Personal Protection: X = Consult your supervisor

HEALTH	*	2
FLAMMABILITY		3
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 - 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
 ATE: Acute toxicity estimate
 ATEmix: Acute Toxicity Estimate of mixture
 Carcinogenicity: Carcinogenicity
 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
 Flammable Gas: Flammable gases
 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
 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
 Reproductive toxicant: Reproductive toxicity
 Respiratory Sensitizer: Sensitisation to the respiratory tract
 RID: Regulations Concerning the International Carriage of Dangerous Goods by Rail
 Sensitization - skin: Skin sensitisation
 Skin Corrosion: Skin corrosion
 Skin Irritation: Skin irritation
 STOT RE: Specific target organ toxicity - repeated exposure
 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

Reason of change:

Changes in section 8: Occupational exposure limit values

Date of first version:

10/26/1994

Department issuing data sheet

Contact person:

see section 1: Department responsible for information



SAFETY DATA SHEET

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

636K17 - OTTO BOCK Light Putty

Material number 636K17

Revision date: 7/7/2025

Version: 16.1

Replaces version: 16.0

Language: en-US

Date of print: 9/2/2025

Page: 18 of 18

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.