in accordance with 29 CFR 1910.1200 and ANSI standard Z400.1-2010

636K3 - Plastic Wood

Material number 636K 3

Revision date:3/22/2018Version:14Language:en-USDate of print:5/24/2018

Page:

1 of 10

1. Product and company identification

Product identifier

ottobock.

Trade name:

General use:

636K3 - Plastic Wood

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

plastic wood filling compound for orthopedic procedures. For use in industrial installations and professional treatment only.

Details of the supplier of the safety data sheet

Company name: Street/POB-No.:	Otto Bock Health Care 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 info	rmation:
	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

Emergency phone number

Duderstadt Germany

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:	Form: pasty
	Color: brown
Odor:	like ketone
Classification:	Flammable Solid - Category 1; Eye Irritation - Category 2A; Specific Target Organ Toxicity (Single Exposure) - Category 3;
Hazard symbols:	
Signal word:	Danger
Hazard statements:	Flammable solid.
	Causes serious eye irritation.
	May cause drowsiness or dizziness.

in accordance with 29 CFR 1910.1200 and ANSI standard Z400.1-2010

Revision date: 3/22/2018 Version: 14 en-US Language: Date of print: 5/24/2018

2 of 10

Page:

ottobock. 636K3 - Plastic Wood

Material number 636K 3

Precautionary statements:

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Avoid breathing dust/fume/gas/mist/vapors/spray.

Use only outdoors or in a well-ventilated area.

Wear protective gloves/protective clothing/eye protection/face protection.

Call a POISON CENTER/doctor/.../if you feel unwell.

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: Mixture of the substances listed below with non-hazardous additions.

Relevant ingredients:

CAS No.	Designation	Content	Classification
CAS 67-64-1	Acetone	30 - 60 %	Flammable Liquid - Category 2. Eye Irritation - Category 2A. Specific Target Organ Toxicity (Single Exposure) - Category 3.
CAS 9004-70-0	Nitrocellulose	5 - 20 %	Flammable Solid - Category 1.

Additional information: Contains Titanium dioxide. The maximum workplace exposure limits are, where necessary, listed in section 8.

	4. First aid measures
General information:	Immediately remove any wetted clothing, shoes or stockings. First aider: Pay attention to self-protection!
In case of inhalation:	Move victim to fresh air, put at rest and loosen restrictive clothing. If breathing becomes irregular or ceases, apply rescue breathing or artificial respiration immediately, where required supply oxygen. Do not allow victim to become chilled. Keep victim warm. If victim is at risk of losing consciousness, position and transport on their side.
Following skin contact:	Thoroughly wash skin with soap and water. Follow up by applying skin cream. Seek medical attention if irritation persists.
After eye contact:	Immediately flush eyes with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Subsequently seek the immediate attention of an ophthalmologist.
After swallowing:	Rinse mouth immediately and drink plenty of water. Do not induce vomiting. Danger of aspiration! Immediately get medical attention.

in accordance with 29 CFR 1910.1200 and ANSI standard Z400.1-2010

636K3 - Plastic Wood

Material number 636K 3

Page:

3 of 10

Most important symptoms/effects, acute and delayed

In case of inhalation: Do not breathe vapors. Higher doses may have a narcotic effect. The following symptoms may occur: Headache, dizziness. After contact with skin: Prolonged or repeated contact with the product affects the skin's natural oils and induces drying up. This may lead to irritation/dermatitis. After eye contact: irritant

Information to physician

Combat acidosis. Monitor alkali reserves. Monitor breathing. If breathing becomes irregular or ceases, apply rescue breathing or artificial respiration immediately, where required supply oxygen. Attention: several hours latency period. Treat symptomatically.

5. Fire fighting measures

Flash point/flash point range:

approx. -2.2 °F

Auto-ignition temperature: not self-igniting

Suitable extinguishing media:

Water spray jet, alcohol resistant foam, dry chemical powder, carbon dioxide

Extinguishing media which must not be used for safety reasons:

Full water jet

Specific hazards arising from the chemical

Flammable solid. In case of fire may be liberated: Titanium dioxide-smoke, Nitrogen oxides (NOx), carbon monoxide and carbon dioxide.

Protective equipment and precautions for firefighters:

Wear self-contained breathing apparatus to prevent exposure to poisonous gases that may develop.

Additional information: Cool exposed containers with water spray. You have to dispose of contaminated extinguishing water according to the regulations of the authorities.

	6. Accidental release measures
Personal precautions:	Keep away from sources of ignition. Do not breathe vapors. Wear appropriate protective equipment. Keep unprotected people away. Provide adequate ventilation. Avoid contact with skin and eyes.
Environmental precaution	ns:
	Do not allow to enter into surface water or drains. If necessary notify appropriate authorities.
Methods for clean-up:	Remove all sources of ignition. Provide adequate ventilation. Take up mechanically, placing in appropriate containers for disposal.
Additional information:	Flammable solid. Vapors form potentially explosive mixtures with air, which are heavier than air. Air-Vapor mixture may travel great distances at floor level and lead to backflash when exposed to an ignition source. Ignition by hot surfaces, sparks and open flames. Potentially explosive mixtures with air may form above water surface. Product flocculates in water. Parts of the solvent used may dissolve in water.

in accordance with 29 CFR 1910.1200 and ANSI standard Z400.1-2010

Revision date: 3/22/2018 Version: 14 en-US Language: Date of print: 5/24/2018

Page:

636K3 - Plastic Wood

Material number 636K 3

4 of 10

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.	
Precautions against fire and explosion:	

Precautions against fire and explosion: Take precautionary measures against static discharges. Keep away from sources of ignition - No smoking. Highly flammable vapors. Forms explosive mixtures with air, also in empty, uncleaned containers. Exposure to temperatures exceeding 122 °F will increase pressure: resulting in danger of bursting or explosion. Specific use(s) plastic wood filling compound

Storage

Requirements for storerooms and containers:			
	Protect from heat and direct sunlight.		
	Store container tightly closed in a dry and cool place.		
Hints on joint storage:	Do not store together with oxidizing agents. Keep away from alkalis. Keep away from food, drink and animal feedingstuffs.		
Further details:	Steel, stainless steel and aluminium are stable container materials.		

8. Exposure controls / personal protection

Exposure guidelines

ottobock.

Occupational exposure limit values:

CAS No.	Designation	Туре	Limit value
67-64-1	Acetone	USA: ACGIH: STEL	500 ppm
		USA: ACGIH: TWA	250 ppm
		USA: NIOSH: TWA	590 mg/m ³ ; 250 ppm
		USA: OSHA: TWA	2400 mg/m ³ ; 1000 ppm
13463-67-7	Titanium dioxide	USA: ACGIH: TWA	10 mg/m ³
		USA: OSHA: TWA	15 mg/m³

Biological limit values:

CAS No.	Designation	Туре	Limit value	Parameter	Sampling
67-64-1	Acetone	USA: ACGIH-BEI, urine	25 mg/L	acetone	end of exposure or end of shift

Engineering controls

Explosion protection required. Work only with resistant materials. Provide for good ventilation or exhaust system or work with completely self-contained equipment. See also information in chapter 7, section storage.

Personal protection equipment (PPE)

Eye/face protection Tightly sealed goggles according to OSHA Standard - 29 CFR: 1910.133 or ANSI Z87.1-2010. Skin protection Wear suitable protective clothing.

in accordance with 29 CFR 1910.1200 and ANSI standard Z400.1-2010

ottobock. ^{in accordance with 20 cm. 1} 636K3 - Plastic Wood

Material number 636K 3

	Protective gloves according to OSHA Standard - 29 CFR: 1910.138.
	Glove material: Nitrile rubber-Layer thickness: 0,35 mm.
	Butyl caoutchouc (butyl rubber)-Layer thickness: 0,5 mm.
	Breakthrough time: >480 min.
	Observe glove manufacturer's instructions concerning penetrability and breakthrough time.
Respiratory protection:	Use filter against vapors of low boiling organic substances according to OSHA Standard - 29 CFR: 1910.134 or ANSI Z88.2.
	Have a breathing apparatus that is not dependent on the circulating air ready for emergencies. In case of prolonged or repeated exposures: use self-contained breathing apparatus.
General hygiene consider	
	Take off immediately all contaminated clothing.
	Do not breathe vapors.
	Avoid contact with skin and eyes.
	Week hands hafers breaks and after werk

Wash hands before breaks and after work. When using do not eat, drink or smoke.

9. Physical and chemical properties

Information on basic physical and chemical properties

Appearance:	Form: pasty Color: brown
Odor:	like ketone
Odor threshold:	No data available
pH value:	No data available
Melting point/freezing point:	No data available
Initial boiling point and boiling range:	No data available
Flash point/flash point range:	approx2.2 °F
Evaporation rate:	No data available
Flammability:	No data available
Explosion limits:	LEL (Lower Explosion Limit): 2.60 Vol-% UEL (Upper Explosive Limit): 13.00 Vol-%
Vapor pressure:	at 68 °F: 239.5 hPa
Vapor density:	No data available
Density:	at 68 °F: 0.79 g/mL
Water solubility:	partially 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:	356 °F

10. Stability and reactivity

Reactivity:

Flammable solid.

printed by Otto Bock, Utah

Revision date: 3/22/2018

Date of print: 5/24/2018

14

en-US

5 of 10

Version:

Page:

Language:

Material number 636K 3

ottobock. ^{in accordance With 29 GTK TOTALLY} 636K3 - Plastic Wood in accordance with 29 CFR 1910.1200 and ANSI standard Z400.1-2010

Revision date: 3/22/2018 Version: 14 Language: en-US Date of print: 5/24/2018

Page: 6 of 10

Chemical stability:	Stable under recommended storage conditions. Unsuitable materials: Rubber
Possibility of hazardous r	reactions Vapors may form explosive mixtures with air. Forms explosive mixtures with air, also in empty, uncleaned containers. Concentrated vapors are heavier than air. May become electrostatically charged.
Conditions to avoid:	Protect against heat /sun rays. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Take precautionary measures against static discharge. Use explosion-proof electrical/ventilating/lighting equipment.
Incompatible materials:	Strong oxidizing agents Attacks many plastics and rubbers. On contact with barium hydroxide, sodium hydroxide and many other alkaline materials condensation may occur.
Hazardous decompositior	In case of fire may be liberated: Titanium dioxide-smoke, Nitrogen oxides (NOx), carbon
Thermal decomposition:	monoxide and carbon dioxide. No data available

11. Toxicological information

Toxicological tests			
Acute toxicity:	LD50 Rat, oral: (Information about acetone) 5800 mg/kg		
Toxicological effects:	Acute toxicity (oral): Lack of data.		
	Acute toxicity (dermal): Lack of data.		
	Acute toxicity (inhalative): Lack of data.		
	Skin corrosion/irritation: Lack of data.		
	Serious eye damage/irritation: Eye Irritation - Category 2A = Causes serious eye irritation.		
	Sensitisation to the respiratory tract: Lack of data.		
	Skin sensitisation: Lack of data.		
	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 drowsiness or dizziness.		
	Specific target organ toxicity (repeated exposure): Lack of data.		
	Aspiration hazard: Lack of data.		
Symptoms			
	In case of inhalation: Do not breathe vapors. Higher doses may have a narcotic effect. The following symptoms may occur: Headache, dizziness. After contact with skin: Prolonged or repeated contact with the product affects the skin's natural oils and induces drying up. This may lead to irritation/dermatitis. After eye contact: irritant		

ottobock. 636K3 - Plastic Wood

Material number 636K 3

Page:

7 of 10

General remarks

sensitization: Not known to cause sensitization.

12. Ecological information

Ecotoxicity

Aquatic toxicity:	Information about acetone: Leuciscus idus test LC0: 6320 - 7900 mg/l - LC 50: 7505 - 11300 mg/l - LC100: 10670 - 15800 mg/l Goldfish: LC50/24h: > 5000 mg/l Acute toxicity values: bacteria: 2,8 - fish: 2,0
	Toxic to aquatic organisms. LD 50 Daphnia magna: 10 mg/l
	Toxicological concentration limits: Microcystis aeruginosa 530 mg/l - Entosiphon sulcatum: 28 mg/l Pseudomonas putida: 1700 mg/l - Scenedesmus quadricauda: 7500 mg/l

Mobility in soil

No data available

Persistence and degradability

Further details: No data available

Additional ecological information

Volatile organic compounds (VOC):

55 % by weight = 434.5 g/L General information: Do not allow to enter into ground-water, surface water or drains.

13. Disposal considerations

Product

Recommendation:

Do not dispose of with household waste. Incinerate according to applicable local, state and federal regulations.

Contaminated packaging

Recommendation: Dispose of waste according to applicable legislation.

Additional information

Handle empty containers with care. Incineration may cause explosion.

in accordance with 29 CFR 1910.1200 and ANSI standard Z400.1-2010

ottobock. in accordance with 29 GFR 1910, 12 G and 12 G a

Material number 636K 3

Revision date:	3/22/2018
Version:	14
Language:	en-US
Date of print:	5/24/2018

Page:

8 of 10

	14. Transport information
USA: Department of Transpo	ortation (DOT)
Identification number:	UN3175
Proper shipping name:	UN 3175, UN 3175, SOLIDS CONTAINING FLAMMABLE LIQUID, N.O.S. (acetone)
Hazard class or Division:	4.1
Packing Group:	II
Labels:	4.1
Symbols:	G
Special provisions:	47, IB6, IP2, T3, TP33
Packaging – Exceptions:	151
Packaging – Non-bulk:	212
Packaging – Bulk:	240
Quantity limitations – Passenger aircraft /	
	15 kg
Quantity limitations – Cargo only:	50 kg
Vessel stowage – Location:	В
Sea transport (IMDG)	
UN number:	UN 3175
Proper shipping name:	UN 3175, SOLIDS CONTAINING FLAMMABLE LIQUID, N.O.S. (acetone)
Class or division, Subsidary risk:	Class 4.1, Subrisk -
Packing Group:	II
EmS:	F-A, S-I
Special provisions:	216, 274
Limited quantities:	1 kg
Excepted quantities:	E2
Contaminated packaging - Instructions:	P002
Contaminated packaging - Provisions:	PP9
IBC - Instructions:	IBC06
IBC - Provisions:	B21
Tank instructions - IMO:	-
Tank instructions - UN:	T3, BK2
Tank instructions - Provisions:	TP33
Stowage and handling:	Category B.
Properties and observations:	Mixtures of non-dangerous solids (such as soil, sand, production materials etc.) and flammable liquids.
Marine pollutant:	no
Segregation group:	none
Air transport (IATA)	
UN/ID number:	UN 3175
Proper shipping name:	UN 3175, SOLIDS CONTAINING FLAMMABLE LIQUID, N.O.S. (acetone)
Class or division, Subsidary risk:	Class 4.1
Packing Group:	II.
Hazard label:	Flamm. solid
Excepted Quantity Code:	E2
Passenger and Cargo Aircraft: Ltd.Qty.:	Pack.Instr. Y441 - Max. Net Qty/Pkg. 5 kg
Passenger and Cargo Aircraft:	Pack.Instr. 445 - Max. Net Qty/Pkg. 15 kg
Cargo Aircraft only:	Pack.Instr. 448 - Max. Net Qty/Pkg. 50 kg
Special provisions:	A46
Emergency Response Guide-Code (ERG)	: 3L

in accordance with 29 CFR 1910.1200 and ANSI standard Z400.1-2010

ottobock. 636K3 - Plastic Wood

Material number 636K 3

Revision date: 3/22/2018 Version: 14 Language: en-US Date of print: 5/24/2018

Page:

9 of 10

15. Regulatory information

National regulations - U.S. Federal Regulations

Acetone:	TSCA Inventory: listed TSCA HPVC: not listed Clean Air Act: SOCMI Chemical: yes Other Environmental Laws: CERCLA: RQ 5000 lbs. RCRA Hazardous Wastes: Code U002 RCRA Groundwater Monitoring: Methods 8240 / PQL 100 NIOSH Recommendations: Occupational Health Guideline: 0004*
Nitrocellulose:	TSCA: listed - Flags: XU Process Safety Management: Threshold Quantity: 2500 pounds
Titanium dioxide:	TSCA Inventory: listed TSCA HPVC: not listed Carcinogen Status: IARC Rating: Group 2B OSHA Carcinogen: not listed NTP Rating: not listed NIOSH Recommendations: Occupational Health Guideline: 0617

National regulations - U.S. State Regulations

Acetone:	California Prop 65 List: None Delaware Air Quality Management List: DRQ: 5000 - RQ State: Federal Regulations Apply Idaho Air Pollutant List: Title 585: AAC: 89 - EL: 119 - OEL: 1780 Massachusetts Haz. Substance codes: 2,4,5,6 F8 F9 Minnesota Haz. Substance: Codes: AON - Ratings: 7.16 - Status: Title III New York List of Hazardous Substances: RQ-Air: 5000 - RQ-Land: 1 - Note: No Note Associated with this chemical. Pennsylvania Haz. Substance code: E Washington Air Contaminant: TWA: 750 ppm - 1800 mg - STEL: 1000 ppm - 2400 mg	
Nitrocellulose:	California Proposition 65 code: - Delaware Air Quality Management List: DRQ: 500 - RQ State: State requirement differs from Federal Massachusetts Haz. Substance codes: 5,6 New Jersey RTK Hazardous Substance: DOT: 0340 - Sub No.: 3642 - TPQ: - Pennsylvania Haz. Substance code: -	
Titanium dioxide:	California Proposition 65: cancer Rhode Island HSL: listed	
National regulations - Great Britain		
Hazchem-Code:	1Z	

Hazchem-Code:

in accordance with 29 CFR 1910.1200 and ANSI standard Z400.1-2010

ottobock. ^{in accordance will 25 Group}

Material number 636K 3

Revision date:	3/22/2018
Version:	14
Language:	en-US
Date of print:	5/24/2018

Page:

10 of 10

	16. Other information	
Text for labeling:	Contains 30 - 60 % Acetone, 5 - 20 % Nitrocellulose. Safety dat request.	a sheet available on
Hazard rating systems:	NFPA Hazard Rating: Health: 1 (Slight) Fire: 3 (Serious) Reactivity: 0 (Minimal)	
	HMIS Version III Rating:	HEALTH 1
\checkmark	Health: 1 (Slight)	FLAMMABILITY 3
	Flammability: 3 (Serious)	PHYSICAL HAZARD 0
	Physical Hazard: 0 (Minimal) Personal Protection: X = Consult your supervisor	x
Reason of change:	Changes in section 1.3: Corporate headquarters	
Date of first version:	10/24/1994	
Department issu	ing data sheet	

see section 1: Dept. responsible for information Contact person:

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.