

Freeman 1060LV Part A (Resin)

Section 1 Identification

Product identifiers

Product name: Freeman 1060LV Part A (Resin)

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

Isocyanate-terminated prepolymer component of a polyurethane elastomer system.

For industrial and professional use only.

Details of the supplier of the safety data sheet

Freeman Manufacturing & Supply Company

1101 Moore Road, Avon, OH 44011

Telephone (440) 934-1902

Email: contactus@freemansupply.com

24 Hour emergency telephone number:

CHEMTREC (800) 424-9300

Section 2 Hazards Identification

GHS Classification in accordance with 29 CFR 1910.1200 (OSHA HCS)

Not a dangerous substance.

Precautionary Statements

P201 – Obtain special instructions before use.

P202 – Do not handle until all safety precautions have been read and understood.

P260 – Do not breathe fumes, mist and vapors.

P264 – Wash skin and face thoroughly after handling.

P271 – Use only outdoors or in a well ventilated area.

P272 – Contaminated work clothing should not be allowed out of the workplace.

P280 – Wear protective gloves/protective clothing/eye protection/face protection.

P284 – In case of inadequate ventilation, wear respiratory protection.

P303+352 – IF ON SKIN (or hair): Wash with plenty of soap and water.

P304+340 – IF INHALED: Remove person to fresh air and keep at rest in a position comfortable for breathing.

P305+351+338 – IF IN EYES: Rinse continuously with water for several minutes.

Remove contact lenses if present and easy to do. Continue rinsing.

P308+313 – IF exposed or concerned: Get medical advice/attention.

P312 – Call a POISON CENTER or doctor/physician if you feel unwell.

P314 – Get medical advice/attention if you feel unwell.

P333+311 – If skin irritation occurs: Call a POISON CENTER or doctor/physician.

P337+311 – If eye irritation persists: Call a POISON CENTER or doctor/physician.

P342 – If experiencing respiratory symptoms: Call a doctor or emergency medical facility (i.e., 911)

P362 – Take off contaminated clothing and wash before reuse.

P403+233 – Store in a well-ventilated place. Keep container tightly closed.

P405 – Store locked up.

P501 – Dispose of contents/container in accordance with federal/state/local regulations.

Hazards not otherwise classified (HNOC) or not covered by GHS

Contains isocyanates. Inhalation of isocyanate mists or vapors may cause respiratory irritation, breathlessness, chest discomfort and reduced pulmonary function. Overexposure well above the PEL may result in bronchitis, bronchial spasms and pulmonary edema. Long term exposure due to isocyanates has been reported to cause lung damage, including reduced lung function which may be permanent. Acute or chronic overexposure to isocyanates may cause sensitization in some individuals, resulting in allergic respiratory reactions including wheezing, shortness of breath, and difficulty breathing. Animal testing indicates that skin contact may be a factor in causing respiratory sensitization.

Section 3 Composition/Information on Ingredients

| Ingredient Name | CAS Number | Concentration (%) |
|-------------------------|-------------|-------------------|
| Polyurethane Prepolymer | Proprietary | 80 - 100 |
| Toluene Diisocyanate | 26471-62-5 | < 0.06 |

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Section 4 First Aid Measures

Inhalation Move to an area free from further exposure. Extreme asthmatic reactions may occur in sensitized persons and can be life threatening. Get medical attention immediately. Administer oxygen or artificial respiration as needed. Asthmatic symptoms may develop and may be immediate or delayed up to several hours.

Eyes: Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Seek immediate medical attention.

Skin: Flush skin with plenty of water for at least five minutes while removing contaminated clothing and shoes. Wash thoroughly with soap and water. Get medical attention if irritation or rash develops on affected area. Wash clothing before reuse.

Ingestion: Call a physician immediately. Rinse mouth and drink plenty of water. Do not induce vomiting. Remove stomach contents only as directed by medical personnel. Never give anything by mouth to an unconscious person.

Most important symptoms and effects, both acute and delayed

Diisocyanate vapors or mist at concentrations above the TLV or PEL can irritate (burning sensation) the mucous membranes in the respiratory tract (nose, throat, lungs) causing runny nose, sore throat, coughing, chest discomfort, shortness of breath and reduced lung function (breathing obstruction). Persons with a pre-existing, nonspecific bronchial hyperreactivity can respond to concentrations below the TLV or PEL with similar symptoms as well as asthma attack or asthma like symptoms. Exposure well above the TLV or PEL may lead to bronchitis, bronchial spasm, and pulmonary edema (fluid in lungs). Chemical or hypersensitivity pneumonitis, with flu like symptoms (e.g. fever, chills) has also been reported. These symptoms can be delayed up to several hours after exposure. These effects are usually reversible. Causes skin irritation with symptoms of reddening, itching, and swelling. Persons previously sensitized can experience allergic skin reaction with symptoms of reddening, itching, swelling, and rash. Cured material is difficult to remove. Contact with isocyanate can cause discoloration. Causes eye irritation with symptoms of reddening, tearing, stinging, and swelling. May cause temporary corneal injury. Vapor or aerosol may cause irritation with symptoms of burning and tearing. May cause irritation of the digestive tract. Symptoms may include abdominal pain, nausea, vomiting, and diarrhea. Delayed symptoms affecting the respiratory tract can also occur several hours after overexposure.

Section 5 Fire-Fighting Measures

Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Advice for firefighters

Firefighters should wear positive pressure self-contained breathing apparatus (SCBA) and consider use of unmanned hose holders or monitor nozzles for fighting large fires. Cool fire exposed containers with water spray. Remove containers from the fire area if possible. Do not release runoff from fire control methods to sewers or waterways.

Section 6 Accidental Release Measures

Personal precautions, protective equipment and emergency procedures

Avoid breathing vapors, mist or gas. Evacuate unnecessary personnel. Wear suitable personal protection equipment (PPE) described in Section 8.

Environmental precautions

Prevent migration into groundwater, sewers, or streams. Land spills may require excavation of contaminated soil. Material should not be released into the environment.

Methods and materials for containment and cleaning up

Small Amounts: Absorb isocyanate with suitable absorbent material (see 40 CFR, sections 260, 264 and 265 for further information). Shovel into open container. Do not make container pressure tight. Move container to well ventilated area (outside). Spill area can be decontaminated with the following recommended decontamination solution: Mixture of 90% water, 8% concentrated ammonia, 2% detergent. Add at a 10:1 ratio. Allow to stand for at least 48 hours to allow escape of evolved carbon dioxide.

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Section 6 Accidental Release Measures

Large Amounts: If temporary control of isocyanate vapour is required, a blanket of protein foam or other suitable foam (available from most fire departments) may be placed over the spill. Transfer as much liquid as possible via pump or vacuum device into closed but not sealed containers for disposal.

Residues: The following measures should be taken for final clean-up: Wash down spill area with decontamination solution. Allow solution to stand for at least 10 minutes. Dike spillage.

Section 7 Handling and Storage

General: Mix thoroughly before use.

Precautions for safe handling

Avoid contact with eyes, skin and clothing. Use only with adequate ventilation. Avoid breathing vapor over open containers. Avoid open container exposure to damp air. Avoid breathing aerosols, mists, and vapors. Use appropriate personal protective equipment as specified in Section 8. Handle in a well ventilated area. Handle and use in a manner consistent with good industrial/manufacturing techniques and practices.

Conditions for safe storage, including any incompatibilities

Store material at ambient temperatures (18°C – 29°C) and pressure. Keep away from sources of direct heat and moisture. Keep container tightly closed when not in use, and seal with nitrogen blanket. Moisture contamination may evolve carbon dioxide gas, which may cause containers to pressurize. Material is stable under normal conditions. Segregate from bases.

Section 8 Exposure Controls/Personal Protection

Engineering Controls

Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of mists and/or vapors below the recommended exposure limits.

Personal Protective Equipment: Wear safety glasses, gloves, and apron

Eye: Use safety glasses equipped with side shields, or safety goggles.

Hand: Use chemical resistant gloves (i.e. nitrile, latex, butyl rubber). Contaminated gloves should be replaced.

Skin: Prevent skin contact when handling material. Impervious clothing, including but not limited to apron, full body suit, chemical resistant shoes or shoe covers. Use long sleeves at a minimum.

Respiratory: The need for respiratory protection is not anticipated under normal use conditions and with adequate ventilation. If elevated airborne concentrations above applicable workplace exposure levels are anticipated, a NIOSH-approved organic vapor respirator equipped with a dust/mist prefilter should be used.

Safety Stations

Make emergency eyewash stations, safety/quick-drench showers, and washing facilities available in work area.

General Hygienic Practices

Avoid breathing vapor or mist. Avoid contamination of food, beverages, or smoking materials. Wash thoroughly after handling, and before eating, drinking or smoking. Remove contaminated clothing promptly and clean thoroughly before reuse.

Section 9 Physical and Chemical Properties

| | | | |
|----------------------------------|----------------------|-------------------------------------|--|
| Appearance | Yellow liquid | Vapor Pressure | 0.00001 mm Hg at 25°C (77°F) |
| Odor | Slight aromatic odor | Vapor Density | No data available |
| Odor threshold | No data available | Specific Gravity | 1.09 |
| pH | No data available | Water Solubility | Not soluble in water; reacts with water |
| Boiling Point | No data available | Coefficient: n-octanol/water | No data available |
| Flash Point (Closed Cup) | >93°C (>200°F) | Auto-ignition temperature | No data available |
| Evaporation rate | No data available | Decomposition temperature | No data available |
| Flammability (solid, gas) | Not applicable | Viscosity | 3,000 cP at 25°C (77°F) |
| Upper/lower flammability | No data available | | |

Freeman 1060LV Part A (Resin)

Section 10 Stability and Reactivity

| | |
|----------------------------------|---|
| Reactivity: | Stable under ambient conditions of temperature and pressure. |
| Chemical Stability: | No decomposition if stored and applied as directed. |
| Hazardous Polymerization: | No dangerous reactions will occur under normal use/storage conditions. Contact with moisture, other materials that react with isocyanates, or temperatures above 350°F (177°C), may cause polymerization. |
| Conditions to Avoid: | Avoid moisture, extreme temperatures, and contact with incompatible materials. |
| Incompatible Materials: | Water, alcohols, amines, strong oxidizing agents, and strong bases. |
| Hazardous Decomposition: | Thermal oxidative decomposition can produce Hydrogen cyanide, carbon oxides, nitrogen oxides, and isocyanate vapors. |

Section 11 Toxicological Information

Information on toxicological effects of product

No data available

Toxicity data for Toluene Diisocyanate (TDI)

| | |
|--|--|
| Oral LD₅₀ (rat) | >5,000 mg/kg |
| Dermal LD₅₀ (rabbit) | >9,400 mg/kg |
| Inhalation LC₅₀ | 0.48 mg/L |
| Skin corrosion/irritation | Moderate irritant |
| Serious eye damage/eye irritation | Severe irritant |
| Respiratory or skin sensitization | Skin sensitizer and respiratory sensitizer |
| Germ cell mutagenicity | No data available |
| Carcinogenicity | No data available |

Section 12 Ecological Information

| | |
|---|---|
| Toxicity | LC50: > 133 mg/l (Rainbow Trout, 96 h) EC50 > 12.5 mg/l (Water flea (Daphnia magna), 48 h) |
| Persistence and degradability | Product is not biodegradable |
| Bioaccumulative potential | No data available |
| Mobility in soil | No data available |
| Results of PBT & vPvB assessment | No data available |

Section 13 Disposal Considerations

The residues, including the empty containers, must be eliminated in a controlled manner. Contact a licensed disposal company for detailed recommendations. Follow applicable Federal, State, and local regulations. Do not reuse empty containers. The empty containers may be recycled, recovered or eliminated by authorized and/or qualified administrators.

Section 14 Transport Information

DOT / IMDG / IATA / ICAO: Not classified as a dangerous good

Section 15 Regulatory Information

U.S. Federal Regulations

| Chemical Name | CAS Number | CERCLA RQ | CAA 112(r) TQ |
|----------------------|------------|-----------|---------------|
| Toluene diisocyanate | 26471-62-5 | 100 lb. | 10,000 lb. |

SARA 302 Extremely Hazardous Substances: None present in regulated quantities.

SARA 313 Toxic Chemicals: Toluene diisocyanate (26471-62-5) <0.06%

U.S. State Regulations

California Proposition 65: ⚠️ **WARNING:** This product can expose you to toluene diisocyanate, which is known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov NSRL = 20 µg/day

Toxic Substance Control Act

All ingredients listed on TSCA Inventory.

Section 16 Other Information

Disclaimer

The following supersedes Buyer's documents. SELLER MAKES NO REPRESENTATION OR WARRANTY, EXPRESSED OR IMPLIED, INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. No statements herein are to be construed as inducements to infringe any relevant patent. Under no circumstances shall Seller be liable for incidental, consequential or indirect damages for alleged negligence, breach of warranty, strict of liability arising in connection with the product(s). Buyer's sole remedy and Seller's sole liability for any claims shall be Buyer's purchase price. Data and results are based on controlled lab work and must be confirmed by Buyer by testing for its intended conditions of use. The product(s) has not been tested for, and is therefore not recommended for, uses for which prolonged contact with mucous membranes, abraded skin, or blood is intended; or for uses for which implantation within the human body is intended.

Date of issue: March 3, 2023

Revision date: Not applicable

Freeman 1060LV Part B (Amber Hardener)

Section 1 Identification

Product identifiers

Product name: Freeman 1060LV Part B (Amber Hardener)

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

Polyurethane curative component of a polyurethane elastomer system.

For industrial and professional use only.

Details of the supplier

Freeman Manufacturing & Supply Company

1101 Moore Road, Avon, OH 44011

Telephone: 440-934-1902

Email: contactus@freemansupply.com

24 Hour emergency telephone number:

CHEMTREC (800) 424-9300

Section 2 Hazards Identification

GHS Classification in accordance with 29 CFR 1910.1200 (OSHA HCS)

Skin Sensitization, Category 1B

GHS Label Elements



Warning

Hazard Statements

H317 – May cause an allergic skin reaction.

H411 – Toxic to aquatic life with long lasting effects.

Precautionary Statements

P261 – Avoid breathing dust/fumes/gas/mist/vapors/spray.

P272 – Contaminated work clothing should not be allowed out of the workplace.

P280 – Wear protective gloves/protective clothing/eye protection/face protection.

P273 – Avoid release to the environment.

P303+352 – IF ON SKIN (or hair): Wash with plenty of soap and water.

P304+340 – IF INHALED: Remove person to fresh air and keep at rest in a position comfortable for breathing.

P305+351+338 – IF IN EYES: Rinse continuously with water for several minutes.

Remove contact lenses if present and easy to do. Continue rinsing.

P308+313 – IF exposed or concerned: Get medical advice/attention.

P312 – Call a POISON CENTER or doctor/physician if you feel unwell.

P314 – Get medical advice/attention if you feel unwell.

P333+311 – If skin irritation occurs: Call a POISON CENTER or doctor/physician.

P337+311 – If eye irritation persists: Call a POISON CENTER or doctor/physician.

P342 – If experiencing respiratory symptoms: Call a doctor or emergency medical facility (i.e. 911)

P362 – Take off contaminated clothing and wash before reuse.

P403+233 – Store in a well-ventilated place. Keep container tightly closed.

P405 – Store locked up.

P501 – Dispose of contents/container in accordance with federal/state/local regulations.

Section 3 Composition/Information on Ingredients

| Ingredient Name | CAS Number | Concentration (%) |
|-------------------------------|-------------|-------------------|
| Polyether polyol mixture | Proprietary | 30 - 60 |
| Di-(methylthio)toluenediamine | 106264-79-3 | 30 - 60 |

Freeman 1060LV Part B (Amber Hardener)

Section 4 First Aid Measures

Inhalation Move to an area free from further exposure. Extreme asthmatic reactions may occur in sensitized persons and can be life threatening. Get medical attention immediately. Administer oxygen or artificial respiration as needed. Asthmatic symptoms may develop and may be immediate or delayed up to several hours.

Eyes: Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Seek immediate medical attention.

Skin: Flush skin with plenty of water for at least five minutes while removing contaminated clothing and shoes. Wash thoroughly with soap and water. Get medical attention if irritation or rash develops on affected area. Wash clothing before reuse.

Ingestion: Call a physician immediately. Rinse mouth and drink plenty of water. Do not induce vomiting. Remove stomach contents only as directed by medical personnel. Never give anything by mouth to an unconscious person.

Section 5 Fire-Fighting Measures

Suitable extinguishing media
 Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Advice for firefighters
 Firefighters should wear positive pressure self-contained breathing apparatus (SCBA) and consider use of unmanned hose holders or monitor nozzles for fighting large fires. Cool fire exposed containers with water spray. Remove containers from the fire area if possible. Do not release runoff from fire control methods to sewers or waterways.

Section 6 Accidental Release Measures

Personal precautions, protective equipment and emergency procedures
 Avoid breathing vapors, mist or gas. Evacuate unnecessary personnel. Wear suitable personal protection equipment (PPE) described in Section 8.

Environmental precautions
 Prevent migration into groundwater, sewers, or streams. Land spills may require excavation of contaminated soil. Material should not be released into the environment.

Methods and materials for containment and cleaning up
Small Amounts: Evacuate the area. Clean-up should only be performed by trained personnel. People dealing with a major spill should wear full protective clothing including appropriate respiratory protection. Prevent product from entering sewers or waterways. Neutralize small spills with a decontaminant.
Large Amounts: Contain and absorb large spills onto an inert, non-flammable absorbent carrier (such as earth or sand). Shovel into open-top drums or plastic bags for further decontamination, if necessary. Wash the spill area clean with a liquid decontaminant. Remove and properly dispose of residues.
Residues: The following measures should be taken for final clean-up: Wash down spill area with decontamination solution. Allow solution to stand for at least 10 minutes. Dike spillage.

Section 7 Handling and Storage

General: Mix thoroughly before use.

Precautions for safe handling
 Avoid contact with eyes, skin and clothing. Use only with adequate ventilation. Avoid breathing vapor over open containers. Avoid open container exposure to damp air. Avoid breathing aerosols, mists, and vapors. Use appropriate personal protective equipment as specified in Section 8. Handle in a well-ventilated area. Handle and use in a manner consistent with good industrial/manufacturing techniques and practices.

Conditions for safe storage, including any incompatibilities
 Store material at ambient temperatures (18°C – 29°C) and pressure. Keep away from sources of direct heat and moisture. Keep container tightly closed when not in use, and seal with nitrogen blanket. Material is stable under normal conditions.

Freeman 1060LV Part B (Amber Hardener)

Section 8 Exposure Controls/Personal Protection

Engineering Controls

Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of mists and/or vapors below the recommended exposure limits.

Personal Protective Equipment: Wear safety glasses, gloves, and apron

Eye: Use safety glasses equipped with side shields, or safety goggles.

Hand: Use chemical resistant gloves (i.e. nitrile, latex, butyl rubber). Contaminated gloves should be replaced.

Skin: Prevent skin contact when handling material. Impervious clothing, including but not limited to apron, full body suit, chemical resistant shoes or shoe covers. Use long sleeves at a minimum.

Respiratory: The need for respiratory protection is not anticipated under normal use conditions and with adequate ventilation. If elevated airborne concentrations above applicable workplace exposure levels are anticipated, a NIOSH-approved organic vapor respirator equipped with a dust/mist prefilter should be used.

Safety Stations

Emergency eyewash stations, safety/quick-drench showers, and washing facilities should be available in work area.

General Hygienic Practices

Avoid breathing vapor or mist. Avoid contamination of food, beverages, or smoking materials. Wash thoroughly after handling, and before eating, drinking or smoking. Remove contaminated clothing promptly and clean thoroughly before reuse.

Section 9 Physical and Chemical Properties

| | | | |
|----------------------------------|-------------------|-------------------------------------|------------------------------|
| Appearance | Yellow liquid | Vapor Pressure | 0.00001 mm Hg at 25°C (77°F) |
| Odor | Slight amine | Vapor Density | No data available |
| Odor threshold | No data available | Specific Gravity | 1.05 |
| pH | No data available | Water Solubility | Slightly |
| Boiling Point | No data available | Coefficient: n-octanol/water | No data available |
| Flash Point (Closed Cup) | >182°C (>359°F) | Auto-ignition temperature | No data available |
| Evaporation rate | No data available | Decomposition temperature | No data available |
| Flammability (solid, gas) | Not applicable | Viscosity | 800 cP at 25°C (77°F) |

Section 10 Stability and Reactivity

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|----------------------------------|---|
| Reactivity: | Stable under ambient conditions of temperature and pressure. |
| Chemical Stability: | No decomposition if stored and applied as directed. |
| Hazardous Polymerization: | No dangerous reactions will occur under normal use/storage conditions. |
| Conditions to Avoid: | Avoid moisture, extreme temperatures, and contact with incompatible materials. |
| Incompatible Materials: | Isocyanates, strong oxidizing agents, and strong acids. |
| Hazardous Decomposition: | Thermal oxidative decomposition can produce carbon oxides, nitrogen oxides, and sulfur oxides |

Section 11 Toxicological Information

Information on toxicological effects of product: No data available

Toxicity data for Di-(methylthio)toluene diamine

| | |
|--|---|
| Oral LD₅₀ (rat) | 1,515 mg/kg |
| Dermal LD₅₀ (rabbit) | >2,000 mg/kg |
| Inhalation LC₅₀ | Not established |
| Skin corrosion/irritation | No data available |
| Serious eye damage/eye irritation | No data available |
| Respiratory or skin sensitization | May cause sensitization by skin contact |
| Germ cell mutagenicity | No data available |
| Carcinogenicity | No data available |

Section 12 Ecological Information

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|---|---|
| Toxicity | Toxic to aquatic organisms, may cause long term adverse effects in the aquatic environment. |
| Persistence and degradability | No data available |
| Bioaccumulative potential | No data available |
| Mobility in soil | No data available |
| Results of PBT & vPvB assessment | No data available |

Section 13 Disposal Considerations

Follow all applicable local, state, and federal disposal regulations. Spillage in sewers or watercourses is not allowed. The residues, including the empty containers, must be eliminated in a controlled manner. The empty containers must be recycled, recovered or eliminated by authorized and/or qualified administrators. In any case, the treatment adopted must be carried out in a licensed facility. Do not attempt to refill or clean containers since residue is difficult to remove. Do not burn or cut open with gas or electric torch as toxic decomposition products may be liberated. Do not reuse empty containers.

Section 14 Transport Information

DOT / IMDG / IATA / ICAO: Not classified as a dangerous good

Section 15 Regulatory Information

U.S. Federal Regulations

- CERCLA RQ:** None
- Hazardous Air Pollutants (HAP):** None
- CAA 112(r) TQ:** None
- SARA 302 Extremely Hazardous Substances:** None
- SARA 313 Toxic Chemicals:** None
- Toxic Substance Control Act (TSCA):** All ingredients listed on TSCA Inventory.

U.S. State Regulations

California Proposition 65: This product does not contain any chemicals known to the State of California to cause cancer, birth, or any other reproductive defects. For more information go to www.P65Warnings.ca.gov

Section 16 Other Information

Disclaimer

The following supersedes Buyer's documents. SELLER MAKES NO REPRESENTATION OR WARRANTY, EXPRESSED OR IMPLIED, INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. No statements herein are to be construed as inducements to infringe any relevant patent. Under no circumstances shall Seller be liable for incidental, consequential or indirect damages for alleged negligence, breach of warranty, strict of liability arising in connection with the product(s). Buyer's sole remedy and Seller's sole liability for any claims shall be Buyer's purchase price. Data and results are based on controlled lab work and must be confirmed by Buyer by testing for its intended conditions of use. The product(s) has not been tested for, and is therefore not recommended for, uses for which prolonged contact with mucous membranes, abraded skin, or blood is intended; or for uses for which implantation within the human body is intended.

Date of issue: March 3, 2023
Revision date: July 13, 2023