

**SAFETY DATA SHEET****10o 2K URETHANE**

According to Appendix D, OSHA Hazard Communication Standard 29 CFR §1910.1200

**1. Identification****Product Identifier**

Product name 10o 2K URETHANE

Product number 56704

**Recommended use of the chemical and restrictions on use**

Application Paints and Coatings

Uses advised against No specific uses advised against are identified.

**Details of the supplier of the safety data sheet**

Manufacturer C.E. Bradley  
56 Bennett Drive  
Brattleboro, VT 05301  
+1 (802) 257-7971  
info@cebradley.com

**Emergency telephone number**

Emergency telephone CHEMTEL Contract MIS00015: (800) 255-3924

**2. Hazard(s) Identification****Classification of the substance or mixture**

Physical hazards Flam. Liq. 3 - H226

Health hazards Skin Sens. 1 - H317 Repr. 1B - H360D STOT SE 3 - H336

Environmental hazards Not Classified

**Label elements****Hazard symbols****Signal word**

Danger

**Hazard statements**

H226 Flammable liquid and vapor.  
H317 May cause an allergic skin reaction.  
H360D May damage the unborn child.  
H336 May cause drowsiness or dizziness.

**100 2K URETHANE****Precautionary statements**

P201 Obtain special instructions before use.  
 P202 Do not handle until all safety precautions have been read and understood.  
 P210 Keep away from heat, sparks, open flames and hot surfaces. No smoking.  
 P240 Ground/ bond container and receiving equipment.  
 P241 Use explosion-proof electrical equipment.  
 P242 Use only non-sparking tools.  
 P243 Take precautionary measures against static discharge.  
 P261 Avoid breathing vapor/ spray.  
 P271 Use only outdoors or in a well-ventilated area.  
 P272 Contaminated work clothing must not be allowed out of the workplace.  
 P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.  
 P302+P352 If on skin: Wash with plenty of water.  
 P303+P361+P353 If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower.  
 P304+P340 If inhaled: Remove person to fresh air and keep comfortable for breathing.  
 P308+P313 If exposed or concerned: Get medical advice/ attention.  
 P312 Call a poison center/ doctor if you feel unwell.  
 P321 Specific treatment (see medical advice on this label).  
 P333+P313 If skin irritation or rash occurs: Get medical advice/ attention.  
 P362+P364 Take off contaminated clothing and wash it before reuse.  
 P370+P378 In case of fire: Use foam, carbon dioxide, dry powder or water fog to extinguish.  
 P403+P233 Store in a well-ventilated place. Keep container tightly closed.  
 P403+P235 Store in a well-ventilated place. Keep cool.  
 P405 Store locked up.  
 P501 Dispose of contents/ container in accordance with national regulations.

**Contains**

n-butyl acetate, toluene, 2-methoxypropyl acetate, n-butyl methacrylate, 2-hydroxyethyl acrylate

**Other hazards**

This product does not contain any substances classified as PBT or vPvB.

**3. Composition/Information on ingredients****Mixtures**

<b>n-butyl acetate</b> CAS number: 123-86-4	<b>30-60%</b>
<b>amorphous silicon dioxide, chemically prepared</b> CAS number: 7631-86-9	<b>1-5%</b>
<b>toluene</b> CAS number: 108-88-3	<b>&lt;1%</b>
<b>2-methoxypropyl acetate</b> CAS number: 70657-70-4	<b>&lt;1%</b>
<b>n-butyl methacrylate</b> CAS number: 97-88-1	<b>&lt;1%</b>

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<b>xylene</b>	<b>&lt;1%</b>
CAS number: 1330-20-7	

<b>2-hydroxyethyl acrylate</b>	<b>&lt;1%</b>
CAS number: 818-61-1	

<b>ethylbenzene</b>	<b>&lt;1%</b>
CAS number: 100-41-4	

**Composition comments**      \* The exact components and/or percentage are withheld as a trade secret in accordance with 29 CFR 1910.1200.

**4. First-aid measures****Description of first aid measures**

<b>General information</b>	Get medical attention if any discomfort continues. Show this Safety Data Sheet to the medical personnel.
<b>Inhalation</b>	Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Maintain an open airway. Loosen tight clothing such as collar, tie or belt. When breathing is difficult, properly trained personnel may assist affected person by administering oxygen. Get medical attention. Place unconscious person on their side in the recovery position and ensure breathing can take place.
<b>Ingestion</b>	Rinse mouth thoroughly with water. Give a few small glasses of water or milk to drink. Stop if the affected person feels sick as vomiting may be dangerous. Never give anything by mouth to an unconscious person. Place unconscious person on their side in the recovery position and ensure breathing can take place. Keep affected person under observation. Get medical attention.
<b>Skin Contact</b>	Rinse with water.
<b>Eye contact</b>	Rinse with water. Get medical attention if any discomfort continues.
<b>Protection of first aiders</b>	First aid personnel should wear appropriate protective equipment during any rescue.

**Most important symptoms and effects, both acute and delayed**

<b>General information</b>	The severity of the symptoms described will vary dependent on the concentration and the length of exposure.
<b>Inhalation</b>	A single exposure may cause the following adverse effects: Headache. Nausea, vomiting. Central nervous system depression. Drowsiness, dizziness, disorientation, vertigo. Narcotic effect.
<b>Ingestion</b>	No specific symptoms known.
<b>Skin contact</b>	No specific symptoms known.
<b>Eye contact</b>	No specific symptoms known. May be slightly irritating to eyes.

**Indication of immediate medical attention and special treatment needed**

<b>Notes for the doctor</b>	Treat symptomatically.
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**5. Fire-fighting measures****Extinguishing media**

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**Suitable extinguishing media** The product is flammable. Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water fog. Use fire-extinguishing media suitable for the surrounding fire.

**Unsuitable extinguishing media** Do not use water jet as an extinguisher, as this will spread the fire.

### Special hazards arising from the substance or mixture

**Specific hazards** Containers can burst violently or explode when heated, due to excessive pressure build-up. Flammable liquid and vapour. Vapors may be ignited by a spark, a hot surface or an ember. Vapors may form explosive mixtures with air. Fire-water run-off in sewers may create fire or explosion hazard.

**Hazardous combustion products** Thermal decomposition or combustion products may include the following substances: Harmful gases or vapors.

### Advice for firefighters

**Protective actions during firefighting** Avoid breathing fire gases or vapors. Evacuate area. Keep upwind to avoid inhalation of gases, vapors, fumes and smoke. Ventilate closed spaces before entering them. Cool containers exposed to heat with water spray and remove them from the fire area if it can be done without risk. Cool containers exposed to flames with water until well after the fire is out. If a leak or spill has not ignited, use water spray to disperse vapors and protect men stopping the leak. Control run-off water by containing and keeping it out of sewers and watercourses. If risk of water pollution occurs, notify appropriate authorities.

**Special protective equipment for firefighters** Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing. Standard Firefighter's clothing including helmets, protective boots and gloves will provide a basic level of protection for chemical incidents.

## 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures

**Personal precautions** Wear protective clothing as described in Section 8 of this safety data sheet. No action shall be taken without appropriate training or involving any personal risk. Evacuate area. Provide adequate ventilation. No smoking, sparks, flames or other sources of ignition near spillage. Promptly remove any clothing that becomes contaminated. Avoid inhalation of dust and vapors. Use suitable respiratory protection if ventilation is inadequate.

### Environmental precautions

**Environmental precautions** Avoid discharge into drains or watercourses or onto the ground.

### Methods and material for containment and cleaning up

**Methods for cleaning up** Wear protective clothing as described in Section 8 of this safety data sheet. Clear up spills immediately and dispose of waste safely. Eliminate all ignition sources if safe to do so. No smoking, sparks, flames or other sources of ignition near spillage. Do not allow material to enter confined spaces, due to the risk of explosion. Absorb small quantities with paper towels and evaporate in a safe place. Once evaporation is complete, place paper in a suitable waste disposal container and seal securely. Flush contaminated area with plenty of water. Wash thoroughly after dealing with a spillage. For waste disposal, see Section 13.

**Reference to other sections** For personal protection, see Section 8. See Section 11 for additional information on health hazards. See Section 12 for additional information on ecological hazards. For waste disposal, see Section 13.

## 7. Handling and storage

### Precautions for safe handling

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**Usage precautions** Read and follow manufacturer's recommendations. Wear protective clothing as described in Section 8 of this safety data sheet. Keep away from food, drink and animal feeding stuffs. Handle all packages and containers carefully to minimize spills. Keep container tightly sealed when not in use. Avoid the formation of mists. The product is flammable. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not handle until all safety precautions have been read and understood. Do not handle broken packages without protective equipment. Do not reuse empty containers.

**Advice on general occupational hygiene** Wash promptly if skin becomes contaminated. Take off contaminated clothing and wash before reuse. Wash contaminated clothing before reuse.

### Conditions for safe storage, including any incompatibilities

**Storage precautions** Store locked up. Keep away from oxidizing materials, heat and flames. Keep only in the original container. Keep container tightly closed, in a cool, well ventilated place. Keep containers upright. Protect containers from damage.

**Storage class** Flammable liquid storage.

### Specific end uses(s)

**Specific end use(s)** The identified uses for this product are detailed in Section 1.

## 8. Exposure controls/Personal protection

### Control parameters

#### Occupational exposure limits

##### **n-butyl acetate**

Long-term exposure limit (8-hour TWA): ACGIH 50 ppm 238 mg/m<sup>3</sup>

Short-term exposure limit (15-minute): ACGIH 150 ppm 712 mg/m<sup>3</sup>

Long-term exposure limit (8-hour TWA): OSHA 150 ppm 710 mg/m<sup>3</sup>

##### **amorphous silicon dioxide, chemically prepared**

Long-term exposure limit (8-hour TWA): ACGIH 5 mg/m<sup>3</sup> respirable fraction

Long-term exposure limit (8-hour TWA): ACGIH 10 mg/m<sup>3</sup> total dust

##### **toluene**

Long-term exposure limit (8-hour TWA): ACGIH 20 ppm 75 mg/m<sup>3</sup>

A4

Long-term exposure limit (8-hour TWA): OSHA 200 ppm

Ceiling exposure limit: OSHA 300 ppm

##### **xylene**

Long-term exposure limit (8-hour TWA): OSHA 100 ppm 435 mg/m<sup>3</sup>

Long-term exposure limit (8-hour TWA): ACGIH 100 ppm 434 mg/m<sup>3</sup>

Short-term exposure limit (15-minute): ACGIH 150 ppm 651 mg/m<sup>3</sup>

A4

##### **ethylbenzene**

Long-term exposure limit (8-hour TWA): OSHA 100 ppm 435 mg/m<sup>3</sup>

Long-term exposure limit (8-hour TWA): ACGIH 20 ppm 87 mg/m<sup>3</sup>

A3

ACGIH = American Conference of Governmental Industrial Hygienists.

OSHA = Occupational Safety and Health Administration.

A4 = Not Classifiable as a Human Carcinogen.

A3 = Confirmed Animal Carcinogen with Unknown Relevance to Humans.

**n-butyl acetate (CAS: 123-86-4)**

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**Immediate danger to life  
and health** 1700 ppm

amorphous silicon dioxide, chemically prepared (CAS: 7631-86-9)

**Immediate danger to life  
and health** 3000 mg/m<sup>3</sup>

toluene (CAS: 108-88-3)

**Immediate danger to life  
and health** 500 ppm

ethylbenzene (CAS: 100-41-4)

**Immediate danger to life  
and health** 800 ppm

**Exposure controls****Protective equipment****Appropriate engineering  
controls**

Provide adequate general and local exhaust ventilation. Ensure the ventilation system is regularly maintained and tested. Good general ventilation should be adequate to control worker exposure to airborne contaminants. Observe any occupational exposure limits for the product or ingredients.

**Eye/face protection**

Unless the assessment indicates a higher degree of protection is required, the following protection should be worn: Tight-fitting safety glasses.

**Hand protection**

No specific hand protection recommended.

**Other skin and body  
protection**

Wear appropriate clothing to prevent repeated or prolonged skin contact.

**Hygiene measures**

Wash hands thoroughly after handling. Wash at the end of each work shift and before eating, smoking and using the toilet. Do not eat, drink or smoke when using this product.

**Respiratory protection**

Ensure all respiratory protective equipment is suitable for its intended use and is NIOSH approved. Check that the respirator fits tightly and the filter is changed regularly. Gas and combination filter cartridges should comply with OSHA 1910.134. Full face mask respirators with replaceable filter cartridges should comply with OSHA 1910.134. Half mask and quarter mask respirators with replaceable filter cartridges should comply with OSHA 1910.134.

**Environmental exposure  
controls**

Keep container tightly sealed when not in use. Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

**9. Physical and chemical properties****Information on basic physical and chemical properties**

Appearance	Liquid.
Odor	Solvent or petroleum
Odor threshold	Not determined.

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pH	Not determined or not applicable
Melting point	Not determined.
Initial boiling point and range	Not determined.
Flash point	Not applicable or not determined
Evaporation rate	Not determined.
Flammability (solid, gas)	Not applicable.
Upper/lower flammability or explosive limits	Not determined.
Vapor pressure	Not determined.
Vapor density	> 1 (air = 1)
Relative density	1.02
Solubility(ies)	Partial
Partition coefficient	Not determined.
Auto-ignition temperature	Not determined.
Decomposition Temperature	Not determined.
Viscosity	Not determined.
Volatile Organic Compounds (VOC)	5.2 lbs/gal; 5.2 lbs/gal exempt

**10. Stability and reactivity**

Reactivity	There are no known reactivity hazards associated with this product.
Stability	Stable at normal ambient temperatures and when used as recommended. Stable under the prescribed storage conditions.
Possibility of hazardous reactions	The following materials may react strongly with the product: Oxidizing agents.
Conditions to avoid	Avoid heat, flames and other sources of ignition. Containers can burst violently or explode when heated, due to excessive pressure build-up. Static electricity and formation of sparks must be prevented.
Materials to avoid	Oxidizing materials. Acids - oxidizing.
Hazardous decomposition products	Does not decompose when used and stored as recommended. Thermal decomposition or combustion products may include the following substances: Harmful gases or vapors.

**11. Toxicological information****Information on toxicological effects****Acute toxicity - oral**

Notes (oral LD<sub>50</sub>) Based on available data the classification criteria are not met.

**Acute toxicity - dermal**

Notes (dermal LD<sub>50</sub>) Based on available data the classification criteria are not met.

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<b>ATE dermal (mg/kg)</b>	265,082.39
<b><u>Acute toxicity - inhalation</u></b>	
<b>Notes (Inhalation LC<sub>50</sub>)</b>	Based on available data the classification criteria are not met.
<b><u>Skin corrosion/irritation</u></b>	
<b>Animal data</b>	Based on available data the classification criteria are not met.
<b><u>Serious eye damage/irritation</u></b>	
<b>Serious eye damage/irritation</b>	Based on available data the classification criteria are not met.
<b><u>Respiratory sensitization</u></b>	
<b>Respiratory sensitization</b>	Based on available data the classification criteria are not met.
<b><u>Skin sensitization</u></b>	
<b>Skin sensitization</b>	Based on available data the classification criteria are not met.
<b><u>Germ cell mutagenicity</u></b>	
<b>Genotoxicity - in vitro</b>	Based on available data the classification criteria are not met.
<b><u>Carcinogenicity</u></b>	
<b>Carcinogenicity</b>	Based on available data the classification criteria are not met.
<b>IARC carcinogenicity</b>	Contains a substance which may be potentially carcinogenic. IARC Group 2B Possibly carcinogenic to humans.
<b><u>Reproductive toxicity</u></b>	
<b>Reproductive toxicity - fertility</b>	Based on available data the classification criteria are not met.
<b>Reproductive toxicity - development</b>	Based on available data the classification criteria are not met.
<b><u>Specific target organ toxicity - single exposure</u></b>	
<b>STOT - single exposure</b>	STOT SE 3 - H336 May cause drowsiness or dizziness.
<b>Target organs</b>	Central nervous system
<b><u>Specific target organ toxicity - repeated exposure</u></b>	
<b>STOT - repeated exposure</b>	STOT RE 2 - H373 May cause damage to organs through prolonged or repeated exposure.
<b><u>Aspiration hazard</u></b>	
<b>Aspiration hazard</b>	Based on available data the classification criteria are not met.
<b>General information</b>	The severity of the symptoms described will vary dependent on the concentration and the length of exposure.
<b>Inhalation</b>	A single exposure may cause the following adverse effects: Headache. Nausea, vomiting. Central nervous system depression. Drowsiness, dizziness, disorientation, vertigo. Narcotic effect.
<b>Ingestion</b>	No specific symptoms known.
<b>Skin Contact</b>	No specific symptoms known.
<b>Eye contact</b>	No specific symptoms known.
<b>Route of exposure</b>	Ingestion Inhalation Skin and/or eye contact
<b>Target Organs</b>	Central nervous system



**10o 2K URETHANE****12. Ecological information**

**Ecotoxicity** Not regarded as dangerous for the environment. However, large or frequent spills may have hazardous effects on the environment.

**Toxicity** Based on available data the classification criteria are not met.

**Persistence and degradability**

**Persistence and degradability** The degradability of the product is not known.

**Bioaccumulative potential**

**Bio-Accumulative Potential** No data available on bioaccumulation.

**Partition coefficient** Not determined.

**Mobility in soil**

**Mobility** No data available.

**Other adverse effects**

**Other adverse effects** None known.

**13. Disposal considerations****Waste treatment methods**

**General information** The generation of waste should be minimized or avoided wherever possible. Reuse or recycle products wherever possible. This material and its container must be disposed of in a safe way. When handling waste, the safety precautions applying to handling of the product should be considered. Care should be taken when handling emptied containers that have not been thoroughly cleaned or rinsed out. Empty containers or liners may retain some product residues and hence be potentially hazardous.

**Disposal methods** Dispose of surplus products and those that cannot be recycled via a licensed waste disposal contractor. Waste, residues, empty containers, discarded work clothes and contaminated cleaning materials should be collected in designated containers, labeled with their contents. Incineration or landfill should only be considered when recycling is not feasible.

**14. Transport information****UN Number**

**UN No. (TDG)** 1263

**UN No. (IMDG)** 1263

**UN No. (ICAO)** 1263

**UN proper shipping name**

**Proper shipping name (TDG)** PAINT RELATED MATERIAL

**Proper shipping name (IMDG)** PAINT RELATED MATERIAL

**Proper shipping name (ICAO)** PAINT RELATED MATERIAL

**Transport hazard class(es)**

**TDG class** 3

**TDG label(s)** 3

**IMDG Class** 3

**10o 2K URETHANE**

ICAO class/division 3

**Transport labels****Packing group**

TDG Packing Group II

IMDG packing group II

ICAO packing group II

**Environmental hazards****Environmentally Hazardous Substance**

No.

**Special precautions for user**

EmS F-E, S-E

**15. Regulatory Information****US Federal Regulations****SARA Section 302 Extremely Hazardous Substances Tier II Threshold Planning Quantities**

None of the ingredients are listed or exempt.

**CERCLA/Superfund, Hazardous Substances/Reportable Quantities (EPA)**

The following ingredients are listed or exempt:

*n-butyl acetate*

Final CERCLA RQ: 5000(2270) pounds (Kilograms)

*toluene*

Final CERCLA RQ: 1000(454) pounds (Kilograms)

*xylene*

Final CERCLA RQ: 100(45.4) pounds (Kilograms)

*ethylbenzene*

Final CERCLA RQ: 1000(454) pounds (Kilograms)

**SARA Extremely Hazardous Substances EPCRA Reportable Quantities**

None of the ingredients are listed or exempt.

**SARA 313 Emission Reporting**

The following ingredients are listed or exempt:

*toluene*

1.0 %

*xylene*

1.0 %

*ethylbenzene*

0.1 %

**CAA Accidental Release Prevention**

None of the ingredients are listed or exempt.

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**SARA (311/312) Hazard Categories**

fire acute chronic

**OSHA Highly Hazardous Chemicals**

None of the ingredients are listed or exempt.

**US State Regulations****California Proposition 65 Carcinogens and Reproductive Toxins**

The following ingredients are listed or exempt:

*toluene*

*ethylbenzene*

**Massachusetts "Right To Know" List**

The following ingredients are listed or exempt:

*n-butyl acetate*

*toluene*

*n-butyl methacrylate*

*2-hydroxyethyl acrylate*

*amorphous silicon dioxide, chemically prepared*

*xylene*

*ethylbenzene*

**Rhode Island "Right To Know" List**

The following ingredients are listed or exempt:

*n-butyl acetate*

*toluene*

*xylene*

*ethylbenzene*

**New Jersey "Right To Know" List**

The following ingredients are listed or exempt:

*n-butyl acetate*

*toluene*

*n-butyl methacrylate*

*2-hydroxyethyl acrylate*

*xylene*

*ethylbenzene*

**Pennsylvania "Right To Know" List**

The following ingredients are listed or exempt:

*n-butyl acetate*

*toluene*

*n-butyl methacrylate*

*2-hydroxyethyl acrylate*

*amorphous silicon dioxide, chemically prepared*

*xylene*

**10o 2K URETHANE***ethylbenzene***Inventories****US - TSCA**

All the ingredients are listed or exempt.

**16. Other information**

<b>Training advice</b>	Only trained personnel should use this material.
<b>Revision comments</b>	Updated to utilize new authoring software.
<b>Issued by</b>	Health & Safety Department
<b>Revision date</b>	9/6/2019
<b>Revision</b>	7
<b>Supersedes date</b>	5/8/2019
<b>SDS No.</b>	6340
<b>Hazard statements in full</b>	H226 Flammable liquid and vapor. H317 May cause an allergic skin reaction. H336 May cause drowsiness or dizziness. H360D May damage the unborn child.

**End of Safety Data Sheet**

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.