



Material Safety Data Sheet

Crystal Clear® Series

MSDS No. 480

Date Of Preparation: June 4, 2014

Revision: 0006

Section 1 - Chemical Product and Company Identification

Product/Chemical Name: Crystal Clear® Series Part A

General Use: Polyurethane Elastomer

Manufacturer: Smooth-On Inc., 2000 St. John St., Easton PA 18042,
Phone (610) 252-5800, FAX (610) 252-6200

Emergency Contact: Chem-Tel

Domestic 800-255-3924 International 813-248-0585

Section 2 - Hazards Identification

Hazard Designation:

Europe



T: Toxic

Canada



| HMIS | |
|------|---|
| H | 3 |
| F | 1 |
| R | 1 |

Information pertaining to particular dangers

Risk Phrases:

R23: Toxic by inhalation

R36/37/38: Irritating to eyes, respiratory system and skin

R42/43: May cause sensitization by inhalation and skin contact.

Classified according to Articles 6 & 7 of Directive 1999/45/EC

Section 3 - Composition / Information on Ingredients

| Component | ACGIH TWA | OSHA PEL | Hazard Designation | Weight Percent (%) |
|---|-----------|----------|--------------------|--------------------|
| Dicyclohexylmethane-4, 4'-diisocyanate CAS No.: 5124-30-1 EC No.: 225-863-2 | 0.005 ppm | 0.01 ppm | T = Toxic | 75-85 |

Section 4 - First Aid Measures

Inhalation: Remove source(s) of contamination and move victim to fresh air. If breathing has stopped, give artificial respiration, then oxygen if needed. Contact physician immediately.

Eye Contact: Flush eyes with plenty of water. If irritation persists, seek medical attention.

Skin Contact: In case of skin contact, wash thoroughly with soap and water; remove contaminated clothing and launder before reuse; seek medical attention if rash develops.

Ingestion: Do not induce vomiting unless instructed by a physician. Contact physician immediately

After first aid, get appropriate in-plant, paramedic, or community medical support.

Section 5 - Fire-Fighting Measures

Flash Point: 369°F (187.2°C) **LEL:** Not Established **UEL:** Not Established

Flash Point Method: PMCC

Flammability Classification: Non-Flammable

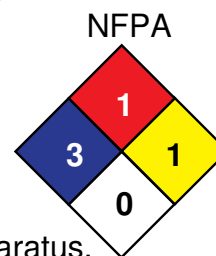
Extinguishing Media: Water Fog, Dry Chemical, and Carbon Dioxide Foam

Unusual Fire or Explosion Hazards: Hazardous decomposition products may be formed. Avoid water contamination in closed containers or confined areas as exothermic heat and carbon dioxide can evolve.

Fire-Fighting Instructions: Fire fighters should wear self-contained breathing apparatus.

Do not release runoff from fire control methods to sewers or waterways.

Fire-Fighting Equipment: Because fire may produce toxic thermal decomposition products, wear a self-contained breathing apparatus (SCBA) with a full face piece operated in pressure-demand or positive-pressure mode.



Section 6 - Accidental Release Measures

Spill /Leak Procedures: Only properly protected personnel should remain in the spill area; dike and contain spill; absorb or scrape up excess into suitable container for disposal; wash area with dilute ammonia solution. Stop or reduce discharge if it can be done safely.

Regulatory Requirements: Follow applicable OSHA regulations (29 CFR 1910.120).

Section 7 - Handling and Storage

Handling Precautions: Minimize breathing of vapors and avoid prolonged or repeated contact with skin. Wear proper protective equipment. If ventilation is not sufficient, wear proper respiratory equipment. Avoid moisture contamination. Reseal partial containers. Use good general housekeeping procedures.

Storage Requirements: Store in cool dry, well-ventilated area.

Section 8 - Exposure Controls / Personal Protection

Respiratory Protection: Follow OSHA respirator regulations 29 CFR 1910.134 and European Standards EN 141, 143 and 371; wear an MSHA/NIOSH or European Standards EN 141, 143 and 371 approved respirators. *Warning! Air-purifying respirators do not protect workers in oxygen-deficient atmospheres.* If respirators are used, OSHA requires a written respiratory protection program that includes at least: medical certification, training, fit-testing, periodic environmental monitoring, maintenance, inspection, cleaning, and convenient, sanitary storage areas.

Protective Clothing/Equipment: Wear chemically protective gloves to prevent prolonged or repeated skin contact. Wear protective eyeglasses or chemical safety goggles, per OSHA eye- and face-protection regulations 29 CFR 1910.133 and European Standard EN166. Contact lenses are not eye protective devices. Appropriate eye protection must be worn instead of, or in conjunction with contact lenses.



Comments: Never eat, drink, or smoke in work areas. Practice good personal hygiene after using this material, especially before eating, drinking, smoking, using the toilet, or applying cosmetics.

Section 9 - Physical and Chemical Properties

| | |
|---|--|
| <p>Physical State: Liquid Appearance : Colorless liquid Odor : Musty odor Vapor Pressure: <0.001 mmHg @ 25°C Vapor Density (Air=1): None Established Specific Gravity (H₂O=1, at 4 °C): 1.08</p> | <p>Water Solubility: Negligible, Reacts with water Boiling Point: None Established % Volatile: Nil Freezing/Melting Point: None Established Viscosity: 2.5 poise Evaporation Rate: Not Applicable</p> |
|---|--|

Section 10 - Stability and Reactivity

Stability: These products are stable at room temperature in closed containers under normal storage and handling conditions.

Polymerization: Hazardous polymerization can occur.

Chemical Incompatibilities: Strong bases, water, amines, alcohols.

Conditions to Avoid: Avoid contamination with water and other materials that react with Isocyanates.

Hazardous Decomposition Products: Dicyclohexylmethane-4, 4'-diisocyanate vapors, hydrogen cyanide gas, and oxides of nitrogen, carbon monoxide and carbon dioxide.

Section 11- Toxicological Information

Acute Toxicity:

Oral LD 50: Greater than 11,000 mg/kg (Rat)

Dermal LD50: 10,000 mg/kg (Rabbit)

Not corrosive according to D.O.T corrosivity test (49CFR173.136)

Eye Effects: Irritation

Skin Effects: Irritation

Mutagenicity: Negative Ames test

Teratogenicity: None Determined

Section 12 - Ecological Information

None Established

Section 13 - Disposal Considerations

Disposal: These materials must be disposed of in accordance with applicable Federal, state and local regulations. Incineration is the best possible method for disposal.

Section 14 - Transport Information

| | | |
|---------------|---------------|---------------|
| DOT | IATA | IMDG |
| Not Regulated | Not Regulated | Not Regulated |

Section 15 - Regulatory Information

United States EPA Regulations:

SARA Toxic Chemical (40 CFR 372.65): This product contains the following chemicals that are subject to release reporting requirements under section 313 of SARA Title III.

| <u>Chemical Name</u> | <u>CAS #</u> | <u>% by Weight</u> |
|--|--------------|--------------------|
| Dicyclohexylmethane-4, 4'-diisocyanate | 5124-30-1 | 85.0 Max |

TSCA Inventory Status (40 CFR710): All components of these products are listed in the TSCA Inventory.

Section 15 - Regulatory Information (continued)

California Proposition 65: These products do not intentionally contain any chemicals, which have been identified by the state of California to cause cancer, birth defects or other reproductive harm.


Canadian Regulations;

WHMIS Identification: **D2A, D2B**

CDSL/NDL (Canadian Domestic Substance List/Non Domestic Substance List): **Listed on CDSL**



Labeling according to EEC Directive

| Risk Phrases | Symbol(s) Required for EU Label | Safety Phrases |
|---|---|--|
| <p>R23: Toxic by inhalation R36/37/38: Irritating to eyes, respiratory system and skin R42/43: May cause sensitization by inhalation and skin contact.</p> |  (T:Toxic) | <p>S1/2: Keep locked up and out of reach of children S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice S28: After contact with skin, wash immediately with plenty of soap and water. S38: In case of insufficient ventilation, wear suitable respiratory equipment. S45: In case of an accident or if you feel sick, seek medical attention</p> |

16 - Other Information

Disclaimer: The information contained in this MSDS is considered accurate as of the version date. However, no warranty is expressed or implied regarding the accuracy of the data. Since the use of this product is not within the control of Smooth-On Inc., it is the user's obligation to determine the suitability of the product for its intended application and assumes all risk and liability for its safe use.

This Material Safety Data Sheet is prepared to comply with the United States Occupational Safety and Health Administration (OSHA) Hazard Communication Standard (29 CFR 1910.1200), the Canadian Workplace Hazardous Materials Information System (WHMIS), and European Union Directive 1907/2006/EEC (REACH). Hazard symbols and risk phrases are based on maximum listed concentration of each hazardous ingredient. Unlisted ingredients are not "hazardous" per the OSHA Hazard Communication Standard (29 CFR 1910.1200), the Canadian Workplace Hazardous Materials Information System (WHMIS) or the European Union (EU/EEC) directive 1907/2006/EEC and are considered trade secrets under US Federal Law (29CFR and 40CFR), Canadian Law (Health Canada Legislation), and European Union Directives.



Material Safety Data Sheet

Crystal Clear® Series

MSDS No. 480

Date Of Preparation: June 4, 2014

Revision: 0006

Section 1 - Chemical Product and Company Identification

Product/Chemical Name: Crystal Clear® Series Part B

General Use: Polyurethane Elastomer

Manufacturer: Smooth-On Inc., 2000 St. John St., Easton PA 18042

Phone (610) 252-5800, FAX (610) 252-6200

Emergency Contact: Chem-Tel

Domestic 800-255-3924

International 813-248-0585

Section 2 - Hazards Identification

Potential Health Effects

Hazard Designation:

Europe



Canada



| HMIS | |
|------|---|
| H | 2 |
| F | 1 |
| R | 0 |

Xn: Harmful

Risk Phrases pertaining to particular dangers:

R20/21/22: Harmful by inhalation, contact with skin and if swallowed.

R33: Danger of cumulative effects.

R52/R53: Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Classified according to Articles 6 & 7 of Directive 1999/45/EC

Section 3 - Composition / Information on Ingredients

| Component | ACGIH TWA | OSHA PEL | Hazard Designation | Weight Percent (%) |
|---|------------------|------------------|--------------------|--------------------|
| Polyol /Plasticizer Blend (Non-Hazardous) | None Established | None Established | None | 99.6- 99.8 |
| Phenylmercuric neodecanoate CAS No.: 26545-49-3 EC No.: 247-783-7 | None Established | None Established | Xn | < 0.5 |

Section 4 - First Aid Measures

Inhalation: Remove source(s) of contamination and move victim to fresh air.

Eye Contact: Flush eyes with plenty of water. If irritation persists, seek medical attention.

Skin Contact: In case of skin contact, wash thoroughly with soap and water; remove contaminated clothing and launder before reuse; seek medical attention if rash develops.

Ingestion: Do not induce vomiting unless instructed by a physician. Contact physician immediately.

After first aid, get appropriate in-plant, paramedic, or community medical support.

Section 5 - Fire-Fighting Measures

Flash Point: >365 °F (185 °C)

Flash Point Method: TCC

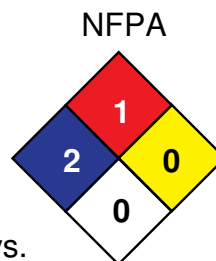
Flammability Classification: Non-Flammable

Extinguishing Media: Water Fog, Dry Chemical, and Carbon Dioxide Foam

Unusual Fire or Explosion Hazards: None

Fire-Fighting Instructions: Fire fighters should wear self-contained breathing apparatus. Do not release runoff from fire control methods to sewers or waterways.

Fire-Fighting Equipment: Because fire may produce toxic thermal decomposition products, wear a self-contained breathing apparatus (SCBA) with a full face piece operated in pressure-demand or positive-pressure mode.



Section 6 - Accidental Release Measures

Spill /Leak Procedures: Dike and contain spill; absorb or scrape up excess into suitable container for disposal. Stop or reduce discharge if it can be done safely.

Regulatory Requirements: Follow applicable OSHA regulations (29 CFR 1910.120).

Section 7 - Handling and Storage

Handling Precautions: Minimize breathing of vapors and avoid prolonged or repeated contact with skin. Wear proper protective equipment. If ventilation is not sufficient, wear proper respiratory equipment. Use good general housekeeping procedures.

Storage Requirements: Store in cool dry, well-ventilated area.

Section 8 - Exposure Controls / Personal Protection

Respiratory Protection: Follow OSHA respirator regulations 29 CFR 1910.134 and European Standards EN 141, 143 and 371; wear an MSHA/NIOSH or European Standards EN 141, 143 and 371 approved respirators. *Warning! Air-purifying respirators do not protect workers in oxygen-deficient atmospheres.* If respirators are used, OSHA requires a written respiratory protection program that includes at least: medical certification, training, fit-testing, periodic environmental monitoring, maintenance, inspection, cleaning, and convenient, sanitary storage areas.

Protective Clothing/Equipment: Wear chemically protective gloves to prevent prolonged or repeated skin contact. Wear protective eyeglasses or chemical safety goggles, per OSHA eye- and face-protection regulations 29 CFR 1910.133 and European Standard EN166. Contact lenses are not eye protective devices. Appropriate eye protection must be worn instead of, or in conjunction with contact lenses.



Comments: Never eat, drink, or smoke in work areas. Practice good personal hygiene after using this material, especially before eating, drinking, smoking, using the toilet, or applying cosmetics.

Section 9 - Physical and Chemical Properties

| | |
|--|---|
| <p>Physical State: Liquid Appearance: Clear colorless liquid Odor: Mild odor Vapor Pressure: None (Polymeric Resin) Vapor Density (Air=1): >1 Specific Gravity (H₂O=1, at 4 °C): 1.03</p> | <p>Water Solubility: Negligible: Boiling Point: None (Polymeric Resin) % Volatile: Nil Freezing/Melting Point: None Determined Viscosity: 8 poise Evaporation Rate: None (Polymeric Resin)</p> |
|--|---|

Section 10 - Stability and Reactivity

Stability: These products are stable at room temperature in closed containers under normal storage and handling conditions.

Polymerization: Hazardous polymerization can not occur.

Chemical Incompatibilities: Strong acids and oxidizers.

Conditions to Avoid: Avoid contamination with water and other materials that react with amines.

Thermal Decomposition Products: Oxides of nitrogen, carbon monoxide and carbon dioxide

Section 11- Toxicological Information

Toxicity Data:

| | |
|---|---|
| <p>Acute Inhalation Effects: None Established Acute Oral Effects: None Established</p> | <p>Reproductive Toxicity: None Established Mutagenicity: None Established Teratogenicity: None Established Sensitization: None Established</p> |
|---|---|

Section 12 - Ecological Information

None Established

Section 13 - Disposal Considerations

Disposal: These materials must be disposed of in accordance with applicable Federal, state and local regulations.

Section 14 - Transport Information

| | | |
|---------------|---------------|---------------|
| DOT | IATA | IMDG |
| Not Regulated | Not Regulated | Not Regulated |

Section 15 - Regulatory Information

United States EPA Regulations:

SARA Toxic Chemical (40 CFR 372.65): This product contains the following chemicals that are subject to release reporting requirements under section 313 of SARA Title III.

| Components That Require Reporting | RQ | % of Reportable Component |
|-----------------------------------|-------|---------------------------|
| Mercury (as part of catalyst) | 1 lb. | 0.074 |

TSCA Inventory Status (40 CFR 710): All components of these products are listed on the TSCA inventory.

California Proposition 65: These products contain a mercury compound, which has been identified by the state of California to cause birth defects or other reproductive harm.

Section 15 - Regulatory Information (continued)


Canadian Regulations;

WHMIS Identification: **D2A, D2B**

CDSL/NDL (Canadian Domestic Substance List/Non Domestic Substance List): **Listed on CDSL**



Labeling according to EEC Directive

| | | |
|---|--|--|
| <p>R20/21/22: Harmful by inhalation, contact with skin and if swallowed.</p> <p>R33: Danger of cumulative effects.</p> <p>R52/R53: Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.</p> |  Xn = Harmful | <p>S1/2: Keep locked up and out of reach of children.</p> <p>S3: Keep in a cool place.</p> <p>S28: After contact with skin, wash immediately with plenty of soap and water.</p> <p>S35: This material and its container must be disposed of in a safe way.</p> <p>S45: In case of an accident or if you feel sick, seek medical attention.</p> <p>S61: Avoid release to the environment. (See MSDS).</p> |
|---|--|--|

16 - Other Information

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