**MATERIAL SAFETY DATA SHEET**

**SECTION 1 - IDENTIFICATION**

Product identifier: Surface Bonder Xi, RPT-01, Trim Bonder TR30/TR40
Rodding Compound RD50, Sink Bonder SK11

Product Code(s): Not available.

Product Use: Bonding agent for acrylic composite, polyester composite, quartz composite, natural stone, FRP/GRP and steel reinforcing rods.

Chemical Family: Mixture.

Supplier’s name and address: Integra Adhesives
Unit 4
33759 Morey Avenue
Abbotsford, BC, Canada
V2S 2W5

Manufacturer’s name and address:

Information Telephone #: (604) 850-1321
24 Hr. Emergency Tel #: (604) 986-4617

**SECTION 2 - HAZARDS IDENTIFICATION**

Part A: WHMIS information: This product is a WHMIS Controlled Product. It meets one or more of the criteria for a controlled product provided in Part IV of the Canadian Controlled Products Regulations (CPR). WHMIS Classification:
- Class B2 (Flammable Liquids)
- Class D2B (Materials Causing Other Toxic Effects, Toxic Material)
- Class F (Dangerously Reactive Material)

OSHA: This material is classified as hazardous under OSHA regulations (29CFR 1910.1200). Hazardous classification:
- Unstable (reactive)
- Acute Health Hazard
- Chronic Health Hazard

Part B: WHMIS information: This product is a WHMIS Controlled Product. It meets one or more of the criteria for a controlled product provided in Part IV of the Canadian Controlled Products Regulations (CPR). WHMIS Classification:
- Class C (Oxidizing Material)
- Class D2B (Materials Causing Other Toxic Effects, Toxic Material)

OSHA: This material is classified as hazardous under OSHA regulations (29CFR 1910.1200). Hazardous classification:
- Oxidizer
- Acute Health Hazard

Emergency Overview: Part A: Clear transparent liquid that may be tinted. Typical resin odour. DANGER! Reactive hazard! Vapour or uninhibited liquid may polymerize explosively, if heated or exposed to sunlight (ultraviolet light), ionizing radiation, or incompatible materials. Moderate to severe eye irritant. May cause mild to moderate skin irritation. Inhalation may cause respiratory irritation and central nervous system depression. Liver and kidney injuries may occur.

Part B: Paste with a faint odour. DANGER! Contains a strong oxidizer. May cause mild eye irritation. May cause mild skin irritation. May cause respiratory irritation. May cause skin sensitization.
POTENTIAL HEALTH EFFECTS:

Signs and symptoms of short-term (acute) exposure

Inhalation : Part A: Inhalation may cause respiratory irritation and central nervous system depression.
Part B: Inhalation may cause irritation to the nose, throat and upper respiratory tract.

Skin : Part A: May cause mild to moderate skin irritation.
Part B: May cause mild transient irritation.

Eyes : Part A: May cause moderate to severe irritation.
Part B: May cause mild transient irritation.

Ingestion : Ingestion may irritate digestive tract and cause nausea, vomiting and diarrhea.

Effects of long-term (chronic) exposure

Carcinogenic status : None known or reported by the manufacturer.

Additional health hazards : Skin sensitizer. See TOXICOLOGICAL INFORMATION, Section 11.

Potential environmental effects : See ECOLOGICAL INFORMATION, Section 12.

SECTION 3 - COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>CAS #</th>
<th>Wt.%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Part A Methyl methacrylate</td>
<td>80-62-6</td>
<td>35.00 - 50.00</td>
</tr>
<tr>
<td>Part B Benzoyl peroxide</td>
<td>94-36-0</td>
<td>2.00 - 5.00</td>
</tr>
<tr>
<td>Tricresyl phosphate</td>
<td>1330-78-5</td>
<td>2.00 - 5.00</td>
</tr>
<tr>
<td>Reaction product of Epichlorohydrin and Bisphenol A</td>
<td>25085-99-8</td>
<td>70.00 - 80.00</td>
</tr>
</tbody>
</table>

SECTION 4 - FIRST AID MEASURES

Inhalation : Immediately remove person to fresh air. If breathing has stopped, give artificial respiration. If symptoms develop, seek medical attention.

Skin contact : Remove/Take off immediately all contaminated clothing. Wash thoroughly with soap and water for at least 20 minutes. Obtain medical attention immediately.

Eye contact : Immediately flush eyes with running water for at least 20 minutes. If irritation persists, seek prompt medical attention.

Ingestion : Seek immediate medical attention/advice. Do not induce vomiting. If conscious, give the victim plenty of water to drink. Never give anything by mouth to an unconscious person.

Notes For Physician : Treat symptomatically. Part A: This product is a CNS depressant.

SECTION 5 - FIRE FIGHTING MEASURES

Fire hazards/conditions of flammability
Part A: Flammable liquid and vapour. Vapours are heavier than air and collect in confined and low-lying areas. Explosive decomposition may occur under fire conditions. Closed containers may explode and/or auto ignite when exposed to extreme heat.

Part B: Contains an organic peroxide. Will support or initiate combustion or explosion of organic matter and other oxidizable material. Dust can form an explosive mixture in air. Closed containers may rupture if exposed to excess heat or flame due to a build-up of internal pressure.

Flammability classification (OSHA 29 CFR 1910.1200)

Part A: Flammable Liquid Class 1B.
Part B: None assigned.

Oxidizing properties

Part A: None.
Part B: Contains an organic peroxide.

Explosion data: Sensitivity to mechanical impact / static discharge

Sensitive to mechanical impact / static discharge.

Suitable extinguishing media

Dry chemical, foam, carbon dioxide and water fog. Do not use water jet, as this may spread burning material.

Special fire-fighting procedures/equipment

Firefighters should wear proper protective equipment and self-contained breathing apparatus with full face piece operated in positive pressure mode. Move containers from fire area if safe to do so. Water spray may be useful in cooling equipment exposed to heat and flame.

Hazardous combustion products

Carbon oxides.

NFPA Rating

<table>
<thead>
<tr>
<th>Health</th>
<th>Flammability</th>
<th>Instability</th>
<th>Special Hazards</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>3</td>
<td>2</td>
<td>None</td>
</tr>
</tbody>
</table>

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Personal precautions

All persons dealing with clean-up should wear the appropriate protective equipment including self-contained breathing apparatus. Keep all other personnel upwind and away from the spill/release. Restrict access to area until completion of clean-up.

Environmental precautions

Ensure spilled product does not enter drains, sewers, waterways, or confined spaces. For large spills, dike the area to prevent spreading.

Spill response/cleanup

Ventilate area of release. Remove all sources of ignition. Use only non-sparking tools and equipment in the clean-up process. Sweep up and shovel into suitable containers for disposal. Use methods that do not generate dusts. Notify the appropriate authorities as required.

Prohibited materials

Do not use combustible absorbents, such as sawdust.

Special spill response procedures

If a spill/release in excess of the EPA reportable quantity is made into the environment, immediately notify the national response center in the United States (phone: 1-800-424-8802). US CERCLA Reportable quantity (RQ): Methyl Methacrylate (100 lbs / 45.4 kg)

SECTION 7 - HANDLING AND STORAGE

Safe Handling procedures

Use in a well-ventilated area. Wear suitable protective equipment during handling. Avoid breathing vapors, fumes or dust. Avoid contact with skin, eyes and clothing. Keep away from heat, sparks, and open flames. No sparking tools should be used. Avoid contact with incompatible materials. Wash thoroughly after handling.

Storage requirements

Store in a cool, dry, well-ventilated area. Keep away from direct sunlight. Storage area should be clearly identified, clear of obstruction and accessible only to trained and authorized personnel. Inspect periodically for damage or leaks. No smoking in the area.
Incompatible materials:

Part A: Strong oxidizing agents; Strong alkalis; Strong acids; Reducing agents; Amines; Halogens; Catalytic metals.

Part B: Strong acids; Strong bases; Strong oxidizing agents; Amines; Reducing agents.

Part B is an organic peroxide listed as an incompatible substance to Part A. Mixing Part A and B must be done under controlled conditions as prescribed in the product directions. Use of the resin dispensers provided with the resin kits are adequate for measuring correct amounts of each.

Special packaging materials:

Always keep in containers made of the same materials as the supply container.

SECTION 8 - EXPOSURE CONTROLS AND PERSONAL PROTECTION

### Exposure Limits

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>TWA</td>
<td>STEL</td>
</tr>
<tr>
<td>Part A</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Methyl methacrylate</td>
<td>50 ppm</td>
<td>100 ppm</td>
</tr>
<tr>
<td>Part B</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Benzoyl peroxide</td>
<td>5 mg/m³</td>
<td>N/Av</td>
</tr>
<tr>
<td>Tricresyl phosphate</td>
<td>N/Av</td>
<td>N/Av</td>
</tr>
<tr>
<td>Reaction product of Epichlorohydrin and Bisphenol A</td>
<td>N/Av</td>
<td>N/Av</td>
</tr>
</tbody>
</table>

Ventilation and engineering measures:

Use in a well-ventilated area. General mechanical ventilation should be sufficient.

Respiratory protection:

Respiratory protection is required if the concentrations exceed the TLV. NIOSH-approved respirators are recommended. Advice should be sought from respiratory protection specialists.

Skin protection:

Impervious gloves must be worn when using this product. Advice should be sought from glove suppliers.

Eye / face protection:

Chemical goggles must be worn to prevent dusts from entering the eyes. Wear protective clothing to cover as much of the exposed skin area as possible. An eyewash station and safety shower should be made available in the immediate working area.

Other protective equipment:

Avoid breathing vapors, fumes or dust. Avoid contact with skin, eyes and clothing. When using, do not eat, drink or smoke. Upon completion of work, wash hands before eating, drinking, smoking or use of toilet facilities. Remove soiled clothing and wash it thoroughly before reuse.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Physical state:

Part A: liquid
Part B: paste

Appearance:

Part A: Clear transparent liquid that may be tinted.
Part B: N/Av

Odour:

Part A: Typical resin odour.
Part B: Faint odour.

Odour threshold:

N/Av

pH:

N/Av
Section 10: Stability And Reactivity

Stability and reactivity:

SADT (Self Accelerating Decomposition Temperature) is the lowest temperature at which self accelerating decomposition may occur with substance in the packaging as used in transport. A dangerous self-accelerating decomposition reaction and, under certain circumstances, explosion or fire can be cause decomposition at and above the temperature. Contact with incompatible substances can cause decomposition at or below the SADT. SADT of dibenzoyl peroxide: 60 °C (140 °F)

Hazardous polymerization:

Hazardous polymerisation may occur. Uninhibited methyl methacrylate with low inhibitor concentration, polymerizes slowly at room temperature and on exposure to light and air, and readily at elevated temperatures, greater than 65°C (149°F).

Polymerization becomes self-sustaining above 95 deg C. Metal salts (e.g. ferric or aluminum chloride), peroxides, oxidizers and strong acids may also cause polymerization.

Conditions to avoid:

Avoid heat and open flame. Keep away from direct sunlight.

Materials To Avoid And Incompatibility:

See Section 7 (Handling and Storage) for further details.

Hazardous decomposition products:

None known, refer to hazardous combustion products in Section 5.

SECTION 11 - TOXICOCHEMICAL INFORMATION

Target organs:

Eyes, skin, respiratory system and digestive system.

Routes of exposure:

Inhalation: YES, Skin Absorption: NO, Skin & Eyes: YES, Ingestion: YES

Toxicological data:

See below for individual ingredient acute toxicity data.

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>LC50(4hr) inh, rat</th>
<th>LD50 (Oral, rat)</th>
<th>LD50 (Rabbit, dermal)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Part A</td>
<td>Methyl methacrylate</td>
<td>4632 ppm 4 h</td>
<td>7872 mg/kg</td>
</tr>
<tr>
<td>Part B</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Carcinogenic status: Does not contain any disclosable ingredients considered to be carcinogens by IARC or ACGIH.

Reproductive effects: Not expected to have other reproductive effects.

Teratogenicity: Not expected to be a teratogen.

Mutagenicity: Not expected to be mutagenic in humans.

Epidemiology: Not available.

Sensitization to material: Part A: Not expected to be a skin or respiratory sensitizer. Part B: Contains a chemical, or chemicals, which may cause skin sensitization. This product contains: Dibenzoyl peroxide; Reaction product of Epichlorohydrin and Bisphenol A.

Synergistic materials: None known or reported by the manufacturer.

Irritation: None known or reported by the manufacturer.

Other important hazards: None known or reported by the manufacturer.

Conditions aggravated by overexposure: Pre-existing skin, eye and respiratory disorders.

**SECTION 12 - ECOLOGICAL INFORMATION**

Ecotoxicity: No data is available on the product itself. The product should not be allowed to enter drains or water courses, or be deposited where it can affect ground or surface waters. This product contains the following substance which may also be hazardous for the environment: Methyl methacrylate; Benzoyl peroxide; Tricresyl phosphate.

Part A:
The acute toxicity of methyl methacrylate is:
- Toxicity to fish - LC50/96h/Oncorhynchus mykiss (rainbow trout) = > 79mg/L; NOEC = 40 mg/L
- Toxicity to daphnia - LC50/48h/Daphnia magna (Water flea) = 69 mg/L; NOEC = 37 mg/L

Part B:
The acute toxicity of Benzoyl peroxide is:
- Toxicity to fish - LC50/96h/Oryzias latipes = 0.24 mg/L
- Toxicity to daphnia - EC50/48h/Daphnia magna (Water flea) = 0.07 mg/L
- Toxicity to algae - EC50/72h/algae = 1.3 mg/L

The acute toxicity of Tricresyl phosphate is:
- Toxicity to fish - LC50/96h/Lepomis macrochirus = 0.082 mg/L
- Toxicity to daphnia - EC50/48h/Daphnia magna (Water flea) = 3.2 mg/L
- Toxicity to algae - LC50/96h/algae = 1.3 mg/L

Mobility: No data is available on the product itself.

Persistence: Methyl methacrylate is considered to be readily biodegradable. Benzoyl peroxide and tricresyl are considered to be rapidly biodegradable.

Bioaccumulation potential: Methyl methacrylate has a Log Pow value of 1.83. Benzoyl peroxide has a bioconcentration factor (BCF) of 92 and a Log Pow value of 3.43. Tricresyl has a BCF of 165.

Other Adverse Environmental effects: No additional information.
SECTION 13 - DISPOSAL CONSIDERATIONS

Handling for Disposal: Handle waste according to recommendations in Section 7. Empty containers may contain hazardous residues.

Methods of Disposal: Dispose in accordance with all applicable federal, state, provincial and local regulations. Contact your local, state, provincial or federal environmental agency for specific rules.

RCRA: If this product, as supplied, becomes a waste in the United States, it may meet the criteria of a hazardous waste as defined under RCRA, Title 40 CFR 261. It is the responsibility of the waste generator to determine the proper waste identification and disposal method. For disposal of unused or waste material, check with local, state and federal environmental agencies.

SECTION 14 - TRANSPORT INFORMATION

<table>
<thead>
<tr>
<th>Regulatory Information</th>
<th>UN Number</th>
<th>Shipping Name</th>
<th>Class</th>
<th>Packing Group</th>
<th>Label</th>
</tr>
</thead>
<tbody>
<tr>
<td>49CFR/DOT UN1133</td>
<td>ADHESIVES (Methyl Methacrylate)</td>
<td>3</td>
<td>III</td>
<td>![Flammable Icon]</td>
<td></td>
</tr>
<tr>
<td>49CFR/DOT UN1133</td>
<td>ADHESIVES (methyl methacrylate)</td>
<td>3</td>
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<td>3</td>
<td>III</td>
<td>![Flammable Icon]</td>
<td></td>
</tr>
</tbody>
</table>

SECTION 15 - REGULATORY INFORMATION

US Federal Information:
TSCA: All listed ingredients appear on the Toxic Substances Control Act (TSCA) inventory.

US CERCLA Reportable quantity (RQ): Methyl methacrylate (100 lbs / 45.4 kg).

SARA TITLE III: Sec. 302, Extremely Hazardous Substances, 40 CFR 355: No Extremely Hazardous Substances are present in this material.

SARA TITLE III: Sec. 311 and 312, MSDS Requirements, 40 CFR 370 Hazard Classes: Immediate (Acute) health hazard; Chronic Health Hazard; Fire Hazard. Under SARA Sections 311 and 312, the EPA has established threshold quantities for the reporting of hazardous chemicals. The current thresholds are 500 pounds for the threshold planning quantity (TPQ), whichever is lower, for extremely hazardous substances and 10,000 pounds for all other hazardous chemicals.

SARA TITLE III: Sec. 313, Toxic Chemicals Notification, 40 CFR 372: This product may be subject to SARA notification requirements, since it contains Toxic Chemical constituents above their de minimus concentrations. This product contains: Methyl methacrylate; Dibenzoyl peroxide.

US State Right to Know Laws:
California Proposition 65: To the best of our knowledge, this product does not contain any chemicals known to the State of California to cause cancer or reproductive harm.

Other U.S. State “Right to Know” Lists: The following chemicals are specifically listed by individual States: Methyl methacrylate (MA, MN, NJ, PA, CA, RI); Benzoyl peroxide (MA, MN, NJ, PA, CA, RI); Tricresyl phosphate (NJ).

International Information:
Surface Bonder Xi, RPT-01, Trim Bonder TR30/TR40
Rodding Compound RD50, Sink Bonder SK11

Canadian Environmental Protection Act (CEPA) information: All ingredients listed appear on the Domestic Substances List (DSL).

Refer to Section 2 for a WHMIS Classification for this product.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and this Material Safety Data Sheet contains all the information required by the CPR.

SECTION 16 - OTHER INFORMATION

HMIS Rating: [Legend]

Legend:

1. ACGIH: American Conference of Governmental Industrial Hygienists
2. CAS: Chemical Abstract Services
4. CFR: Code of Federal Regulations
5. DOT: Department of Transportation
6. EPA: Environmental Protection Agency
7. EST: Eastern Standard Time
8. HMIS: Hazardous Materials Identification System
9. HSDB: Hazardous Substances Data Bank
10. IARC: International Agency for Research on Cancer
11. Inh: Inhalation
12. LC: Lethal Concentration
13. LD: Lethal Dose
14. N/Ap: Not Applicable
15. N/Av: Not Available
16. NIOSH: National Institute of Occupational Safety and Health
17. NOEC: No observable effect concentration
18. OSHA: Occupational Safety and Health Administration
19. PEL: Permissible exposure limit
20. RCRA: Resource Conservation and Recovery Act
21. RTECS: Registry of Toxic Effects of Chemical Substances
22. SARA: Superfund Amendments and Reauthorization Act
23. STEL: Short Term Exposure Limit
24. TLV: Threshold Limit Values
25. TWA: Time Weighted Average
26. TSCA: Toxic Substance Control Act
27. WHMIS: Workplace Hazardous Materials Identification System

References:
1. ACGIH, Threshold Limit Values for Chemical Substances and Physical Agents & Biological Exposure Indices for 2012.
3. Canadian Centre for Occupational Health and Safety, CCInfoWeb databases, 2012 (Chempendium, HSDB and RTECs).
4. Material Safety Data Sheets from manufacturer.
DISCLAIMER OF LIABILITY

The information in this MSDS was obtained from sources, which we believe are reliable. However, since the conditions of handling and use are beyond our control, we assume no liability for damages incurred by use of this material. This MSDS was prepared, and is to be used, for this product only. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that may exist. If the product is used as a component in another product, this information may not be applicable. Users of this product should satisfy themselves that the conditions and methods of use assure the product is used safely. No representations or warranties, either expressed or implied, of any nature are made hereunder with respect to the information contained herein. It is the responsibility of the user to comply with any and all federal, state, or local laws and regulations that may exist. Nothing contained herein is to be construed as a recommendation for use in violation of any applicable laws or regulations.

Preparation Date (mm/dd/yyyy)  :  12/06/2012

END OF DOCUMENT