

# SAFETY DATA SHEET



*This Safety Data Sheet complies with the Canadian Hazardous Products Regulations, the United States Occupational Safety and Health Administration (OSHA) Hazard Communication Standard, 29 CFR 1910 (OSHA HCS)*

## 1. Product and Supplier Identification

- 1.1 **Product:** Altima Adhesives Indoor/Outdoor Adhesive Part A
- 1.2 **Product Use:** Outdoor bonding agent for marble, white granite, porous stone and quartz composites
- 1.3 **Producer:** Integra Adhesives  
Unit 4 - 33759 Morey Avenue  
Abbotsford, BC V2S 2W5  
Canada, V2S 2W5  
  
Telephone: +1(604) 850-1321  
  
**Supplier:** As above
- 1.4 **Emergencies (24-hour number):** +1 (352) 323-3500 (Infotrac) - Contract # 103390

## 2. Hazards Identification

- 2.1 **Classification of product or mixture**  
Note to reader: This product in an untested mixture and GHS classification is based on the classification of the ingredients and their concentrations. Proprietary ingredients, if any, do NOT exhibit any health effects not listed in this SDS.

**GHS Classification:** Eye irritation, Category 2A  
Respiratory sensitization, Category 1  
Skin sensitization, Category 1B

- 2.2 **GHS Label Elements, including precautionary statements**

**Pictogram:**



**Signal Word:** Danger

**GHS Hazard Statements:** H317: May cause an allergic skin reaction  
H319: Causes serious eye irritation  
H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled

**GHS Precautionary Statements:**

P261: Avoid breathing dust/fume/gas/mist/spray.  
P264: Wash skin thoroughly after handling.  
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 equipment.  
P302+P352: IF ON SKIN: Wash with plenty of soap and water.  
P304+P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P333+P313: If skin irritation or rash occurs: Get medical advice/attention.  
P337+P313: If eye irritation persists: Get medical advice/attention.  
P342+P311: If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.  
P321: Specific treatment (see First Aid Section on the SDS)  
P362+P364: Take off contaminated clothing and wash it before reuse.  
P501: Dispose of contents/container to an approved waste disposal plant.

**2.3 Hazards not otherwise classified (HNOC) or not covered by GHS:** None

**2.4 Additional Information**

**Primary Routes of Entry:**

|                  |     |
|------------------|-----|
| Skin Contact:    | Yes |
| Skin Absorption: | Yes |
| Eye Contact:     | Yes |
| Ingestion:       | No  |
| Inhalation:      | Yes |

**Emergency Overview:** May cause skin and/or respiratory sensitization.

**Effects of Short-Term (Acute) Exposure:**

**Inhalation:** Excessive exposure may cause severe irritation to the upper respiratory tract (nose and throat) and lungs. Decreased lung function has been associated with overexposure to isocyanates. Effects may be delayed. May cause allergic respiratory response. Re-exposure to extremely low isocyanate concentrations may cause allergic respiratory reactions in individuals already sensitized. Excessive exposure may aggravate pre-existing asthma and other respiratory disorders (e.g. emphysema, bronchitis, reactive airways dysfunction syndrome).

**Skin Contact:** Brief contact may cause slight skin irritation with local redness. Prolonged contact may cause skin irritation with local redness, but is unlikely to result in absorption of harmful amounts. Vapor may cause skin irritation or drying and flaking of the skin. Hexamethylene diisocyanate is a potent skin sensitizer. Severe skin rash/allergic skin reactions have been noted in people exposed to aerosols/vapors of heated material. Animal studies have shown that skin contact with isocyanates may play a role in respiratory sensitization.

**Eye Contact:** Eye contact with these products may cause severe eye irritation or corneal injury. Vapor or mist may cause eye irritation experienced as mild discomfort and redness.

**Ingestion:** Very low toxicity if swallowed, but swallowing may cause gastrointestinal irritation, vomiting, and diarrhea. If swallowed, seek medical attention. Do not induce vomiting unless directed to do so by medical personnel.

**Effects of Long-Term (Chronic) Exposure:** Long-term exposure may increase the risk of sensitization to this product.

**Medical Conditions Aggravated By Exposure:** Pre-sensitization may increase the risk of a more severe allergic reaction.

### 3. Composition

#### 3.1 Mixture composition

| Component                                                                                                             | % (w/w)  | Exposure Limits (ACGIH)* | LD <sub>50</sub>                                        | LC <sub>50</sub>         |
|-----------------------------------------------------------------------------------------------------------------------|----------|--------------------------|---------------------------------------------------------|--------------------------|
| Aliphatic Polyisocyanate<br>(Hexane, 1,6-disocyanato-, homopolymer)<br>(CAS No. 28182-81-2)<br>(EINECS No. 500-060-2) | 65 - 100 | N/av                     | N/av                                                    | N/av                     |
| Hexamethylene - 1,6-diisocyanate<br>(CAS No 822-06-0)<br>(EINECS No. 212-485-8)                                       | 0.1 - 1  | TLV-TWA:<br>5 ppb        | 738 mg/kg<br>(oral/rat)<br>593 mg/kg<br>(dermal/rabbit) | 0.06 mg/l<br>(rat/ 4 hr) |
| Non-hazardous ingredients and ingredients below disclosure requirements.                                              | 1 - 10   | N/ap                     | N/ap                                                    | N/ap                     |
| <b>GHS CLASSIFICATION:</b> EYE IRR, CAT 2A; RESP SENS, CAT 1; SKIN SENS, CAT 2                                        |          |                          |                                                         |                          |

\* ACGIH: American Conference of Governmental Industrial Hygienists. Exposure limits may vary from time to time and from one jurisdiction to another. Check with local regulatory agency for the exposure limits in your area.

**ABBREVIATION KEY:** N/p: not published, N/d: not determined, N/ap: not applicable, N/av: not available

### 4. First Aid Measures

#### 4.1 Description of First Aid Measures

**General advice:** Move out of hazardous area immediately. If medical attention is required, show this safety data sheet to the doctor in attendance.

**In case of eye contact:** Flush eyes with plenty of water for at least 15 minutes. Seek medical advice.

**In case of skin contact:** Wash off with soap and water. Consult a physician if irritation occurs.

**If inhalation:** Move to fresh air. Administer oxygen or artificial respiration if needed. Call a physician immediately.

**If ingestion:** IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. Rinse mouth thoroughly. Never give anything by mouth to a victim who is unconscious or is having convulsions. Do not induce vomiting without advice from poison control center. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Do not use mouth-to-mouth method if victim ingested the substance. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.

#### 4.2 Most important symptoms and effects, both acute and delayed

##### Effects of Short-Term (Acute) Exposure:

**Inhalation:** Excessive exposure may cause severe irritation to the upper respiratory tract (nose and throat) and lungs. Decreased lung function has been associated with overexposure to isocyanates. Effects may be delayed. May cause allergic respiratory response. Re-exposure to

extremely low isocyanate concentrations may cause allergic respiratory reactions in individuals already sensitized. Excessive exposure may aggravate pre-existing asthma and other respiratory disorders (e.g. emphysema, bronchitis, reactive airways dysfunction syndrome).

**Skin Contact:** Brief contact may cause slight skin irritation with local redness. Prolonged contact may cause skin irritation with local redness, but is unlikely to result in absorption of harmful amounts. Vapor may cause skin irritation or drying and flaking of the skin. Hexamethylene diisocyanate is a potent skin sensitizer. Severe skin rash/allergic skin reactions have been noted in people exposed to aerosols/vapors of heated material. Animal studies have shown that skin contact with isocyanates may play a role in respiratory sensitization.

**Eye Contact:** Eye contact with these products may cause severe eye irritation or corneal injury. Vapor or mist may cause eye irritation experienced as mild discomfort and redness.

**Ingestion:** Very low toxicity if swallowed, but swallowing may cause gastrointestinal irritation, vomiting, and diarrhea. If swallowed, seek medical attention. Do not induce vomiting unless directed to do so by medical personnel.

**Effects of Long-Term (Chronic) Exposure:** Long-term exposure may increase the risk of sensitization to this product.

**Medical Conditions Aggravated By Exposure:** Pre-sensitization may increase the risk of a more severe allergic reaction.

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

**Eyes:** Stain for evidence of corneal injury. If cornea is burned, instill antibiotic/steroid preparation as needed. Workplace vapors could produce reversible corneal epithelial edema impairing vision. **Skin:** This compound is a skin sensitizer. Treat symptomatically as for contact dermatitis or thermal burn. **Ingestions:** Treat symptomatically. There is no specific antidote. Inducing vomiting is contraindicated because of the irritating nature of the compound. **Inhalation:** Treatment is essential symptomatic. An individual having a dermal or pulmonary sensitization reaction to this material should be removed from further exposure to any diisocyanate.

## 5. Fire Fighting Measures

**5.1 Extinguishing Media**

**Suitable extinguishing media:** Water spray, alcohol-resistant foam, dry chemical, or carbon dioxide.

**5.2 Special hazards arising from mixture:** Oxides of carbon.

**Advice for firefighters:** Firefighters should wear full protective clothing including self contained breathing apparatus. Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA. ALWAYS stay away from tanks engulfed in flame. In the event of fire, cool tanks with water spray. Withdraw immediately in case of rising sound from venting safety device or any discoloration of tanks due to fire. For massive fire in cargo area, use unmanned hose holder or monitor nozzles, if possible. If not, withdraw and let fire burn out.

**5.3 Further Information:**

**Sensitivity to Impact:** No  
**Sensitivity to Static Discharge:** Not available

**NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) HAZARD INDEX:**

HEALTH: 2  
FLAMMABILITY: 1  
REACTIVITY: 0

## 6. Accidental Release Measures

### 6.1 Personal precautions, protective equipment and emergency procedures

Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them.

**Eye/face protection:** Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

**Skin protection:** Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

**Body Protection:** Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

**Respiratory protection:** Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multipurpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

**Footwear:** No specific recommendation.

**Other:** Emergency eyes wash fountains should be available in vicinity of use. At minimum, an eye lavage kit should be kept on hand.

### 6.2 Environmental precautions

Prevent further leakage or spillage, if safe to do so. Do not let product enter drains and discharge into the environment must be avoided.

### 6.3 Methods and materials for containment and cleanup

Wipe up using absorbent material and dispose of as a hazardous waste. Keep in suitable closed containers for disposal.

**Remedial Measures:** Wash spill area with strong detergent and water solution, rinse with minimal water, if possible.

**Large Spills:** Soak up with inert absorbent material and dispose of as a hazardous waste. Keep in suitable containers for disposal.

**Small Spills:** Soak up with inert absorbent material and dispose of as a hazardous waste. Keep in suitable containers for disposal.

### 6.4 Reference to other sections

For disposal, see Section 13

## 7. Handling and Storage

### 7.1 Precautions for safe handling

**Handling Procedures:** Do not breathe mist or vapor. Do not get this material in contact with eyes or skin. Avoid prolonged exposure. Do not get this material on clothing. Do not use in areas without adequate ventilation. When using do not eat or drink. Wash thoroughly after handling. Avoid release to the environment.

**7.2 Conditions for safe storage, including incompatibilities**

**Storage:** Keep container tightly closed and store in a dry, well-ventilated place. Containers that have been opened must be carefully resealed and kept upright to prevent leakage.

**7.3 Specific end use(s)**

No other uses except those mentioned in Section 1.2

## 8. Exposure Controls, Personal Protection

**8.1 Control parameters**

**Components with workplace control parameters**

**Aliphatic Polyisocyanate (28182-81-2):**

Supplier recommended occupational exposure limit

Time weighted average 0.5 mg/m<sup>3</sup>

Short Term Exposure Limit (STEL): 1.0 mg/m<sup>3</sup> (15 minutes)

**Hexamethylene-1,6-Diisocyanate (822-06-0)**

US. ACGIH Threshold Limit Values

Time Weighted Average (TWA): 5 ppb

**8.2 Exposure Controls**

**Engineering Controls:** Handle in accordance with good industrial hygiene and safety practices. Wash hands at break time and at the end of the day.

**Eye/face protection:** Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

**Skin protection:** Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

**Body Protection:** Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

**Respiratory protection:** Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multipurpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

**Footwear:** No specific recommendation.

**Other:** Emergency eyes wash fountains should be available in vicinity of use. At minimum, an eye lavage kit should be kept on hand

**Control of environmental exposure**

Prevent further leakage or spillage, if safe to do so. Do not let product enter drains.

## 9. Physical and Chemical Properties

### 9.1 Information on basic physical and chemical properties

|                                      |                            |
|--------------------------------------|----------------------------|
| <b>Appearance:</b>                   | Clear, pale yellow liquid  |
| <b>Odour:</b>                        | Negligible, odourless      |
| <b>Odour Threshold:</b>              | Not available              |
| <b>pH:</b>                           | No data available          |
| <b>Melting Point/Freezing Point:</b> | No data available          |
| <b>Initial Boiling Point:</b>        | No data available          |
| <b>Flash Point:</b>                  | 247°C (Method unavailable) |
| <b>Evaporation Rate:</b>             | No data available          |
| <b>Flammability:</b>                 | Not flammable              |
| <b>Upper Explosion Limit:</b>        | Not available              |
| <b>Lower Explosion Limit:</b>        | Not available              |
| <b>Vapour Pressure:</b>              | < 0.001 hPa @ 20°C         |
| <b>Vapour Density:</b>               | Not available              |
| <b>Relative Density:</b>             | 1.17 @ 20°C (water =1)     |
| <b>Solubility:</b>                   | Insoluble in water         |
| <b>Partition Coefficient:</b>        | Not available              |
| <b>Autoignition Temperature:</b>     | Not available              |
| <b>Decomposition Temperature:</b>    | Not available              |
| <b>Viscosity:</b>                    | Not available              |
| <b>Explosive Properties:</b>         | Not available              |
| <b>Oxidizing Properties:</b>         | Not available              |
| <b>Percent Volatiles:</b>            | Not available              |

### 9.2 Other safety information: None

## 10. Stability and Reactivity

### 10.1 Reactivity

Contact with moisture or other materials that react with isocyanates and temperatures above 177°C may cause a hazardous polymerization reaction.

### 10.2 Chemical Stability

Stable under recommended storage conditions.

### 10.3 Possibility of hazardous reactions

Contact with moisture or other materials that react with isocyanates and temperatures above 177°C may cause a hazardous polymerization reaction.

### 10.4 Conditions to avoid

Avoid extreme heat or cold. Contact with incompatible materials.

### 10.5 Incompatible materials

Water, amines, strong bases, strong oxidizing agents, alcohols, copper alloys.

### 10.6 Hazardous decomposition products

By Fire and High Heat: Carbon dioxide, carbon monoxide, oxides of nitrogen, dense black smoke, hydrogen cyanide, isocyanate, isocyanic acid and other undetermined compounds.

## 11. Toxicological Information

### 11.1 Information on toxicological effects

**Acute toxicity**

Not classifiable

**Skin corrosion/irritation**

Not classifiable.

**Serious eye damage/eye irritation**

Eye Irritation, Category 2A, H319: Causes serious eye irritation.

**Respiratory or skin sensitization**

Respiratory sensitizer, Category 1, H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Skin sensitizer, Category 1B, H317: May cause an allergic skin reaction.

**Germ Cell Mutagenicity**

Not classifiable.

**Carcinogenicity**

Not classifiable. Not listed with IARC, NTP or OSHA.

**Reproductive toxicity**

Not classifiable

**Specific Target Organ Toxicity – Single exposure**

Not classifiable.

**Specific Target Organ Toxicity – Repeated exposure**

Not classifiable

**Aspiration Hazard**

Not classifiable

**Aquatic Toxicity**

Not classifiable

**Additional information**

No information available

## 12. Ecological Information

### 12.1 Toxicity

**Acute aquatic toxicity:** Based on available data, the classification criteria are not met.

**Chronic aquatic toxicity:** There is no evidence of a chronic toxicity.

**Impact on Sewage Treatment:** Because of the low bacterial toxicity, there is no risk of an adverse effect on the performance of biological waste water treatment plants.

### 12.2 Persistence and degradability

No data available

### 12.3 Bioaccumulative potential

An accumulation in aquatic organisms is not expected.

### 12.4 Mobility in soil

No data available

### 12.5 Results of PBT and vPvB assessment

The substance does not meet the criteria for classification as PBT or vPvB

**12.6 Other adverse effects**

Isocyanates react with water at the interface forming CO<sub>2</sub> and a solid insoluble product with high melting point (polyurea). This reaction is accelerated by surfactant (e.g. detergents) or by water soluble solvents. Previous experience shows that polyurea is inert and non-degradable.

## 13. Disposal Considerations

**13.1 Waste treatment methods**

**Product:**

Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Do not allow this material to drain into sewers/water supplies. Dispose in accordance with all applicable regulations. Residual vapors may explode on ignition; do not cut, drill, or weld on or near the container. Whatever cannot be saved for recovery or recycling should be handled as hazardous waste and sent to an approved waste facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations.

**Contaminated Packaging:**

Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

## 14. Transport Information

**Transport of Dangerous Goods (TDG and CLR):** Not regulated

**United States Department of Transport (49CFR):** Not regulated

**International Air Transport Association (IATA):** Not regulated

**International Maritime Organization (IMO):** Not regulated

## 15. Regulatory Information

**CANADIAN FEDERAL REGULATIONS:**

**CEPA, DOMESTIC SUBSTANCES LIST:** Listed

**UNITED STATES – FEDERAL REGULATIONS:**

**TOXIC SUBSTANCES CONTROL ACT (TSCA):** All components are listed in the inventory.

**CALIFORNIA Proposition 65, Safe Drinking Water and Toxicity Enforcement Act, 1986:** None listed

**OSHA, 29 CFR 1910, Subpart Z:** Meets criteria for a hazardous substance.

**CERCLA, 40 CFR 302:** No ingredients listed.

**SARA 302, 40 CFR 355:** No ingredients are listed.

**SARA 313, 40 CFR 372:** No ingredients are listed.

**SARA 311/312, 40 CFR 370:** Immediate (Acute)

## 16. Other Information

**Original Preparation Date:** June 15, 2015

**Prepared by:** Upward Packaging Inc, Unit 180 – 3771 Jacombs Road, Richmond, B.C., V6V 2L9

**Disclaimer:** This Safety Data Sheet (SDS) was prepared using information provided by CCINFO, ingredient supplier SDS and other relevant sources. This product has been classified using weight of evidence, expert judgment and previous testing as per Part 1.3 of the Fifth Edition of The Globally Harmonized System of Classification and Labelling of Chemicals (GHS). The information in this SDS is offered for your consideration and guidance when exposed to this product. Altima Adhesives expressly disclaims all expressed or implied warranties and assumes no responsibilities for the accuracy or completeness of the data contained herein. The data in this SDS does not apply to use with any other product or in any other process.

***This Safety Data Sheet may not be changed, or altered in any way without the expressed knowledge and permission of Altima Adhesives.***

**Revisions:** None

## SAFETY DATA SHEET



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### 1. Product and Supplier Identification

- 1.1 Product:** Altima Adhesives Indoor/Outdoor Adhesive — Part B
- 1.2 Product Use:** Outdoor bonding agent for marble, white granite, porous stone and quartz composites.
- 1.3 Producer:** Integra Adhesives  
Unit 4 - 33759 Morey Avenue  
Abbotsford, BC V2S 2W5  
Canada, V2S 2W5  
  
Telephone: +1(604) 850-1321  
  
**Supplier:** As above
- 1.4 Emergencies (24-hour number):** +1(352) 323-3500 (Infotrac) – Contact 103390

### 2. Hazards Identification

- 2.1 Classification of product or mixture**  
Note to reader: This product in an untested mixture and GHS classification is based on the classification of the ingredients and their concentrations. Proprietary ingredients, if any, do NOT exhibit any health effects not listed in this SDS.

**GHS Classification:** Skin Sensitization, Category 1

- 2.2 GHS Label Elements, including precautionary statements**

**Pictogram:**



**Signal Word:** Warning

**GHS Hazard Statements:** H317: May cause an allergic skin reaction.

**GHS Precautionary Statements:**

P261: Avoid breathing mist, vapours or spray  
P272: Contaminated work clothing should 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 soap and water.  
P333+P313: If skin irritation or rash occurs: Get medical advice/attention.  
P362+P364: Take off contaminated clothing and wash it before reuse.  
P501: Dispose of contents/container to an approved waste disposal plant.

**2.3 Hazards not otherwise classified (HNOC) or not covered by GHS:** None

**2.4 Additional Information**

**Primary Routes of Entry:**

|                  |     |
|------------------|-----|
| Skin Contact:    | Yes |
| Skin Absorption: | Yes |
| Eye Contact:     | Yes |
| Ingestion:       | No  |
| Inhalation:      | Yes |

**Emergency Overview:** May be harmful if inhaled. May cause respiratory irritation. May cause allergic skin reaction and skin irritation. May be harmful if absorbed through skin. May cause eye irritation. May be harmful if swallowed.

**Effects of Short-Term (Acute) Exposure:**

**Inhalation:** Inhalation of vapours or mists may cause respiratory irritation. Avoid inhalation of vapours, mists or fumes.

**Skin Contact:** May cause sensitization by skin contact. May cause skin irritation. Avoid contact with the skin.

**Eye Contact:** Contact with eyes may cause irritation. Avoid contact with eyes.

**Ingestion:** Ingestion is not a typical industrial route of entry. Components of the product may be absorbed into the body by ingestion. Irritating to gastrointestinal tract. May be harmful if swallowed. May cause nausea, stomach pain and vomiting. Do not ingest.

**Effects of Long-Term (Chronic) Exposure:** Frequent or prolonged contact may defat and dry the skin, leading to discomfort and dermatitis.

**Medical Conditions Aggravated By Exposure:** Persons susceptible to skin problems may find that the use of this product will cause increased symptoms of existing skin problems.

### 3. Composition

### 3.1 Mixture composition

| Component                                                                | % (w/w) | Exposure Limits (ACGIH)* | LD <sub>50</sub>                                         | LC <sub>50</sub>                 |
|--------------------------------------------------------------------------|---------|--------------------------|----------------------------------------------------------|----------------------------------|
| Aspartic Ester<br>(CAS No. 136210-30-5)<br>(EINECS No. Not assigned)     | 40 - 80 | N/av                     | >2000 mg/kg<br>(oral/rat)<br>>2000 mg/kg<br>(dermal/rat) | >4224 mg/l<br>(Aerosol, 4h, rat) |
| Non-hazardous ingredients and ingredients below disclosure requirements. | 20 - 60 | N/ap                     | N/ap                                                     | N/ap                             |
| <b>GHS CLASSIFICATION:</b> SKIN SENS., Cat 1                             |         |                          |                                                          |                                  |

\* ACGIH: American Conference of Governmental Industrial Hygienists. Exposure limits may vary from time to time and from one jurisdiction to another. Check with local regulatory agency for the exposure limits in your area.

**ABBREVIATION KEY:** N/p: not published, N/d: not determined, N/ap: not applicable, N/av: not available

## 4. First Aid Measures

### 4.1 Description of First Aid Measures

**General advice:** Take off contaminated clothing and shoes immediately. If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance.

**In case of eye contact:** Flush eyes with plenty of lukewarm water. Use fingers to ensure that eyelids are separated and that the eye is being irrigated. Get medical attention if irritation develops.

**In case of skin contact:** Wash affected areas with soap and water. Immediately remove contaminated clothing and shoes. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention if irritation develops.

**In case of inhalation:** If inhaled, remove to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical attention if irritation develops.

**In case of ingestion:** Do not induce vomiting unless directed to do so by medical personnel. Give two glasses of water for dilution. Call a physician immediately. Never give anything by mouth to an unconscious person.

### 4.2 Most important symptoms and effects, both acute and delayed

#### Effects of Short-Term (Acute) Exposure:

**Inhalation:** Inhalation of vapours or mists may cause respiratory irritation. Avoid inhalation of vapours, mists or fumes.

**Skin Contact:** May cause sensitization by skin contact. May cause skin irritation. Avoid contact with the skin.

**Eye Contact:** Contact with eyes may cause irritation. Avoid contact with eyes.

**Ingestion:** Ingestion is not a typical industrial route of entry. Components of the product may be absorbed into the body by ingestion. Irritating to gastrointestinal tract. May be harmful if swallowed. May cause nausea, stomach pain and vomiting. Do not ingest.

**Effects of Long-Term (Chronic) Exposure:** Frequent or prolonged contact may defat and dry the skin, leading to discomfort and dermatitis.

**Medical Conditions Aggravated By Exposure:** Persons susceptible to skin problems may find that the use of this product will cause increased symptoms of existing skin problems.

- 4.3 Indication of any immediate medical attention and special treatment needed**  
None

## 5. Fire Fighting Measures

### 5.1 Extinguishing Media

**Suitable extinguishing media:** All types of extinguishing material suitable.

- 5.2 Special hazards arising from mixture:** Thermal decomposition may produce carbon oxides, nitrogen oxides (NO<sub>x</sub>), amines, other aliphatic fragments which have not been determined, Ammonia gas may be liberated at high temperatures. Toxic and irritating gases may be released during burning.

**Advice for firefighters:** Firefighters should be equipped with self-contained breathing apparatus to protect against potentially toxic and irritating fumes. Use cold water spray to cool fire-exposed containers to minimize the risk of rupture.

### 5.3 Further Information:

**Sensitivity to Impact:** Not available  
**Sensitivity to Static Discharge:** Not available

**NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) HAZARD INDEX:**  
HEALTH: 2  
FLAMMABILITY: 0  
REACTIVITY: 0  
SPECIAL HAZARD: N/ap

## 6. Accidental Release Measures

### 6.1 Personal precautions, protective equipment and emergency procedures

Evacuate and keep unnecessary people out of spill area. Cleanup personnel must use appropriate personal protective equipment. Cover spill with inert material (e. g., dry sand or earth) and collect for proper disposal. Prevent from entering open drains and waterways. Ventilate area to remove vapors or dust.

**Respiratory Protection:** If vapors form, respiratory protection is recommended., The use of a positive pressure supplied air respirator is recommended if the airborne concentration is unknown or if spraying is performed in a confined space or area with limited ventilation., In spray applications, an organic vapor/particulate respirator or air supplied unit is necessary.

**Skin protection:** Handle with gloves. Gloves must be inspected prior to use. Permeation resistant gloves., Viton gloves., 4H laminate gloves., Butyl rubber gloves., Nitrile rubber gloves. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of gloves after use in accordance with applicable laws and good hygiene practices. Wear appropriate chemical resistant clothing. Avoid all skin contact. Depending on the conditions of use, cover as much of the exposed skin area as possible with appropriate clothing to

prevent skin contact., Where spray mist/vapor is anticipated, permeation resistant clothing is recommended.

**Eye and Face Protection:** Chemical safety goggles or safety glasses with side-shields., Chemical safety goggles in combination with a full face shield if a splash hazard exists.

**Footwear:** No specific recommendation.

**Other:** Emergency eyes wash fountains should be available in vicinity of use. At minimum, an eye lavage kit should be kept on hand. Employees should wash their hands and face before eating, drinking, or using tobacco products. Educate and train employees in the safe use and handling of this product.

## 6.2 Environmental precautions

Prevent further leakage or spillage, if safe to do so. Do not let product enter drains and discharge into the environment must be avoided.

## 6.3 Methods and materials for containment and cleanup

Evacuate and keep unnecessary people out of spill area. Cleanup personnel must use appropriate personal protective equipment. Cover spill with inert material (e. g., dry sand or earth) and collect for proper disposal. Ventilate area to remove vapors.

**Remedial Measures:** Wash spill area with strong detergent and water solution, rinse with minimal water, if possible.

**Large Spills:** Use dry sand to dyke and absorb material. Place contaminated sand or absorbent into appropriate containers for proper disposal.

**Small Spills:** Clean surface thoroughly to remove residual contamination. Clean up in accordance with all applicable regulations.

## 6.4 Reference to other sections

For disposal, see Section 13

# 7. Handling and Storage

## 7.1 Precautions for safe handling

**Handling Procedures:** Avoid contact with skin or clothing. Avoid contact with eyes. Use only with adequate ventilation/personal protection. Wash thoroughly after handling. Keep container closed when not in use. Do not breathe vapours or spray mist. Store in a dry place away from excessive heat. Material is hygroscopic and may absorb small amounts of atmospheric moisture. Do not reseal container if contamination is suspected.

## 7.2 Conditions for safe storage, including incompatibilities

**Storage:** Keep away from heat and sources of ignition. Store in a closed container away from incompatible materials such as oxidizers, acids and isocyanates. Storage period is six (6) months after receipt by customer.

## 7.3 Specific end use(s)

No other uses except those mentioned in Section 1.2

# 8. Exposure Controls, Personal Protection

## 8.1 Control parameters

### Components with workplace control parameters

None

## 8.2 Exposure Controls

**Engineering Controls:** General dilution and local exhaust ventilation as necessary to control airborne vapors, aerosols (e.g., dusts, mists) and thermal decomposition products. Heating may result in generation of airborne vapors and/or aerosols.

**Respiratory Protection:** If vapors form, respiratory protection is recommended. The use of a positive pressure supplied air respirator is recommended if the airborne concentration is unknown or if spraying is performed in a confined space or area with limited ventilation. In spray applications, an organic vapor/particulate respirator or air supplied unit is necessary.

**Skin protection:** Handle with gloves. Gloves must be inspected prior to use. Permeation resistant gloves, Viton gloves, 4H laminate gloves, Butyl rubber gloves, Nitrile rubber gloves. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of gloves after use in accordance with applicable laws and good hygiene practices. Wear appropriate chemical resistant clothing. Avoid all skin contact. Depending on the conditions of use, cover as much of the exposed skin area as possible with appropriate clothing to prevent skin contact. Where spray mist/vapor is anticipated, permeation resistant clothing is recommended.

**Eye and Face Protection:** Chemical safety goggles or safety glasses with side-shields. Chemical safety goggles in combination with a full face shield if a splash hazard exists.

**Footwear:** No specific recommendation.

**Other:** Emergency eyes wash fountains should be available in vicinity of use. At minimum, an eye lavage kit should be kept on hand. Employees should wash their hands and face before eating, drinking, or using tobacco products. Educate and train employees in the safe use and handling of this product.

### Control of environmental exposure

Prevent further leakage or spillage, if safe to do so. Do not let product enter drains.

## 9. Physical and Chemical Properties

### 9.1 Information on basic physical and chemical properties

|                                      |                                   |
|--------------------------------------|-----------------------------------|
| <b>Appearance:</b>                   | Liquid                            |
| <b>Odour:</b>                        | Slight inherent odour             |
| <b>Odour Threshold:</b>              | Not available                     |
| <b>pH:</b>                           | Not available                     |
| <b>Melting Point/Freezing Point:</b> | -2°C @ 1013 hPa                   |
| <b>Initial Boiling Point:</b>        | 100°C @1013 hPa                   |
| <b>Flash Point:</b>                  | Not applicable                    |
| <b>Evaporation Rate:</b>             | Not available                     |
| <b>Flammability:</b>                 | Flammable                         |
| <b>Upper Explosion Limit:</b>        | Not available                     |
| <b>Lower Explosion Limit:</b>        | Not available                     |
| <b>Vapour Pressure:</b>              | Not available                     |
| <b>Vapour Density:</b>               | Not available                     |
| <b>Relative Density:</b>             | 1.08 @ 20°C (water =1)            |
| <b>Solubility:</b>                   | Immiscible at 15°C                |
| <b>Partition Coefficient:</b>        | logPow 5.16@20°C (Aspartic Ester) |
| <b>Autoignition Temperature:</b>     | 375°C @1013hPa (Aspartic Ester)   |

**Decomposition Temperature:** 234°C (Aspartic Ester)  
**Viscosity:** Not available  
**Explosive Properties:** Not available  
**Oxidizing Properties:** Not available  
**Percent Volatiles:** Not available

**9.2 Other safety information:** None

## 10. Stability and Reactivity

### 10.1 Reactivity

No data.

### 10.2 Chemical Stability

Stable, as supplied.

### 10.3 Possibility of hazardous reactions

Hazardous polymerization will not occur.

### 10.4 Conditions to avoid

Contact with incompatible materials, such as those listed below.

### 10.5 Incompatible materials

Oxidizing agents, acids and isocyanates.

### 10.6 Hazardous decomposition products

Thermal decomposition may produce carbon oxides, nitrogen oxides (NO<sub>x</sub>), amines, other aliphatic fragments which have not been determined, Ammonia gas may be liberated at high temperatures. Toxic and irritating gases may be released during burning.

## 11. Toxicological Information

### 11.1 Information on toxicological effects

#### Acute toxicity

LD<sub>50</sub> >2000 mg/kg(oral/rat)

LD<sub>50</sub>, >2000 mg/kg(dermal/rat)

LC<sub>50</sub>, >4224 mg/l(Aerosol, 4h, rat)

#### Skin corrosion/irritation

Not classifiable. OECD Test Guideline 404, slightly irritating

#### Serious eye damage/eye irritation

Not classifiable. OECD Test Guideline 405, slightly irritating

#### Respiratory or skin sensitization

Components in this mixture may cause an allergic skin reaction, Category 1, H317, Warning

#### Germ Cell Mutagenicity

Not classifiable. No indication of mutagenicity.

#### Carcinogenicity

Not classifiable. No carcinogenic substances as defined by IARC, NTP or OSHA.

#### Reproductive toxicity

Not classifiable.

#### Specific Target Organ Toxicity – Single exposure

Not classifiable.

**Specific Target Organ Toxicity – Repeated exposure**

Not classifiable.

**Aspiration Hazard**

Not classifiable.

**Aquatic Toxicity**

Not classifiable.

**Additional information**

No information available.

## 12. Ecological Information

### 12.1 Toxicity

**Aquatic, Acute (fish)** LC<sub>50</sub>: 66 mg/l (Danio rerio (zebra fish), 96 h): Ecotoxicological reports on a comparable product.  
(Aspartic Ester)

**Aquatic, Acute (Aquatic Invertebrates)** EC<sub>50</sub>: 88.6 mg/l (Daphnia magna (Water flea), 48 h)  
(Aspartic Ester) Studies of a comparable product.

**Toxicity to Aquatic Plants:** IC<sub>50</sub>: 113 mg/l, (scenedesmus subspicatus, 72 h)  
Ecotoxicological reports on a comparable product.

**Toxicity to Terrestrial Plants:** NOEC >= 100 mg/kg, End Point: Seedling emergence (Avena Sativa (Oats))  
NOEC >= 100 mg/kg, End Point: Seedling emergence (Allium Cepa (Onion))  
NOEC >= 100 mg/kg, End Point: Seedling emergence (Brassica Napus (Rape))

### 12.2 Persistence and degradability

13% Exposure time: 28 day, Ecotoxicological report on a comparable product/substance: not readily degradable.

0% Exposure time: Ecotoxicological report on this product: not inherently degradable.

### 12.3 Bioaccumulative potential

Value calculated, 1,872 BCF

The substance hydrolyzes rapidly in water. An accumulation in aquatic organisms is not to be expected.

### 12.4 Mobility in soil

No data available

### 12.5 Results of PBT and vPvB assessment

Not conducted

### 12.6 Other adverse effects

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

## 13. Disposal Considerations

### 13.1 Waste treatment methods

Product:

Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Do not allow this material to drain into sewers/water supplies. Waste disposal should be in accordance with existing federal, state and local environmental control laws.

**Contaminated Packaging:**

Recondition or dispose of empty container in accordance with governmental regulations. Do not reuse empty container without proper cleaning. Empty containers retain product residue and may be dangerous. Do NOT heat or cut container.

## 14. Transport Information

**Transport of Dangerous Goods (TDG and CLR):** Not regulated

**United States Department of Transport (49CFR):** Not regulated

**International Air Transport Association (IATA):** Not regulated

**International Maritime Organization (IMO):** Not regulated

## 15. Regulatory Information

**CANADIAN FEDERAL REGULATIONS:**

**CEPA, DOMESTIC SUBSTANCES LIST:** Listed

**UNITED STATES – FEDERAL REGULATIONS:**

**TOXIC SUBSTANCES CONTROL ACT (TSCA):** All components are listed in the inventory.

**CALIFORNIA Proposition 65, Safe Drinking Water and Toxicity Enforcement Act, 1986:** None listed

**OSHA, 29 CFR 1910, Subpart Z:** Meets criteria for a hazardous substance.

**CERCLA, 40 CFR 302:** No ingredients listed.

**SARA 302, 40 CFR 355:** No ingredients are listed.

**SARA 313, 40 CFR 372:** No ingredients are listed.

**SARA 311/312, 40 CFR 370:** Immediate (Acute)

## 16. Other Information

**Original Preparation Date:** June 15, 2015

**Prepared by:** Upward Packaging Inc, Unit 180 – 3771 Jacombs Road, Richmond, B.C., V6V 2L9

**Disclaimer:** This Safety Data Sheet (SDS) was prepared using information provided by CCINFO, ingredient supplier SDS and other relevant sources. This product has been classified using weight of evidence, expert judgment and previous testing as per Part 1.3 of the Fifth Edition of The Globally Harmonized System of Classification and Labelling of Chemicals (GHS). The information in this SDS is offered for your consideration and guidance when exposed to this product. Altima Adhesives expressly disclaims all expressed or implied warranties and assumes no responsibilities for the accuracy or completeness of the data contained herein. The data in this SDS does not apply to use with any other product or in any other process.

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**Revisions:** None