

**MATERIAL SAFETY DATA SHEET****G3010; Curing Solution****1. Identification of the Product and Company**

|                                 |   |                                  |
|---------------------------------|---|----------------------------------|
| <b>Product Code &amp; Name:</b> | <b>G3010; Curing Solution</b>   |                                  |
| <b>Manufacturer:</b>            | AkzoNobel Aerospace Coatings, a division of International Paint LLC<br>1 East Water Street<br>Waukegan, IL 60085 USA<br>Tel. 847 623 4200 Fax 847 625 3200  |                                  |
| <b>Emergency:</b>               | Emergency telephone (US) CHEMTREC - 800 424 9300<br>Emergency telephone (Outside US) CHEMTREC - 703 527 3887<br>NOTE: CHEMTREC numbers to be used only in the event of emergencies involving a spill, leak, fire, exposure or accident involving chemicals. |                                  |
| <b>Product Use:</b>             | Coating   | <b>Revision Date:</b> 08/04/2009 |

**2. Hazards Identification**

\*\*\* Emergency Overview \*\*\* ----- clear liquid with solvent odor ----- ----- Class IB - Flammable Liquid ----- ----Keep away from heat, sparks and flame.----

**Potential Acute Health Effects**

**Eye:** Severe irritation with redness, pain, tearing and the possibility of significant injury after direct splash to eye. Vapors may cause eye irritation with redness and minor discomfort of the eye. Overexposure to isocyanate products can cause eye irritation.

**Skin:** Moderately irritating with possible redness and discomfort. Prolonged contact may cause burns with redness and pain. May cause dry skin by dissolving skin oils. Contains a component which can be absorbed through the skin in harmful amounts. Overexposure to isocyanate products can cause skin irritation. It can also lead to skin sensitization. The reaction may include rash, itching, hives and swelling of the arms and legs.

**Inhalation:** Moderately irritating to nose, throat or breathing passages. May cause unconsciousness by depressing the central nervous system after prolonged exposure to high concentrations. May increase risk for sudden death from irregular heart rhythms caused by stressful conditions that increase the levels of adrenalin in the blood. Overexposure to isocyanate products can cause nose, throat, and lung irritation. It can also lead to lung sensitization. Symptoms may include coughing, wheezing, tightness in the chest and shortness of breath. Sensitization may develop as a result of a large single overexposure or from repeated overexposure at lower levels. Respiratory (lung) sensitization can result in strong asthmatic response to future airborne exposures, even at levels well below the TLV.

**Ingestion:** Moderately irritating to the mouth, stomach, and digestive system. No ingestion exposure expected with normal occupational use.

**Potential Chronic Health Effects**

**Eye:** Chronic exposure can cause redness and irritation of the membrane that covers the eyeball and the inside of the eyelids (conjunctivitis).

**Skin:** Frequent or prolonged skin contact may cause irritation or a rash (dermatitis).

**Inhalation:** May cause dry nose and throat, an abnormal sensation of prickling or tingling of the skin, tremors, apprehension, impaired memory, weakness, nervous irritation, dizziness, nausea, loss of appetite, headache, increase liver size and damage to liver, abnormal increase in the number of bone marrow cells, low red blood cell count, and damage to the kidney. May cause damage to hearing or increase sensitivity to noise. Chronic inhalation may lower the count of certain types of blood cells. Chronic alcohol use can increase the potential for toxicity from the repeated exposure to the aromatic hydrocarbon in this product. May accumulate in the body with daily exposure.

**Ingestion:** Chronic ingestion exposure would be unlikely due to the method of use or physical properties of this product.

The components listed in Section 3 may affect the following target organs: Blood. Central Nervous System. Eyes. Gastrointestinal Tract. Hematopoietic System. Kidneys. Liver. Reproductive System. Respiratory System. Skin.

**Primary Route(s) Of Entry:** Skin Contact, Skin Absorption, Inhalation, Eye Contact

**3. Composition / Information on Ingredients**

| <b>Chemical Name</b>                                | <b>CAS Number</b> | <b>WT %</b> |
|---|-------------------|-------------|
| 1,6-HEXAMETHYLENE DIISOCYANATE BASED POLYISOCYANATE | 28182-81-2        | 30-60       |
| 2-ETHOXYETHYL ACETATE                               | 111-15-9          | 10-30       |
| ETHYL ACETATE                                       | 141-78-6          | 10-30       |
| TOLUENE   | 108-88-3          | 7-13        |
| XYLENE  | 1330-20-7         | 1-5         |
| ETHYLBENZENE  | 100-41-4          | 0.1-1.0     |
| HEXAMETHYLENE DIISOCYANATE                          | 822-06-0          | 0.1-1.0     |

#### 4. First Aid Measures

**First Aid - Eye Contact:** If this product contacts the eyes, immediately wash the eyes with large amounts of water, occasionally lifting the lower and upper lids. Get medical attention.

**First Aid - Skin Contact:** If this product contacts the skin, promptly wash the contaminated skin with soap & water. If this product penetrates the clothing, promptly remove the clothing and wash the skin with soap & water. If irritation persists after washing, get medical attention. Launder clothing before reuse.

**First Aid - Inhalation:** If a person breathes large amounts of this product, move the exposed person to fresh air at once. If breathing is difficult, get medical attention.

**First Aid - Ingestion:** If this product has been swallowed, get medical attention immediately.

#### 5. Fire-Fighting Measures

**Flash Point (F):** 25

**Auto Ignition Temperature (F):** 714

**LOWER EXPLOSIVE LIMIT:** 1.0

**UPPER EXPLOSIVE LIMIT:** 12.7

**Extinguishing Media:** Carbon Dioxide, Dry Chemical, Foam

**Special Fire Fighting Procedures:** Firefighters and others exposed to vapors or products of combustion should wear self-contained breathing apparatus.

**Conditions of Flammability:** Vapors are heavier than air and may travel to a source of ignition and flash back.

**Hazardous Combustion Products:** Combustion may produce carbon monoxide, carbon dioxide and irritating or toxic vapors and gases.

**Explosion Data - Sensitivity to Mechanical Impact:** Avoid any sparking between metals. Use of non-sparking tools is recommended.

**Explosion Data - Sensitivity to Static Discharge:** To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material.

#### 6. Accidental Release Measures

**Personal Precautions:** Evacuate personnel to safe areas. Use personal protection recommended in Section 8.

**Environmental Precautions:** Do not allow material to enter sewers or ground.

**Methods for Containment:** Stop or control the spill, if this can be done with undue risk. Ventilate area to maintain exposure below permissible exposure limits.

**Methods for Clean-Up:** Eliminate all ignition sources. Wipe, scrape, or soak up in an inert material. Wash spill area with soap and water. Isolate discharge material for proper disposal. Use spark-proof tools to containerize. Use caution as spill may create a slip hazard.

#### 7. Handling and Storage

**Handling:** Grounding or bonding of containers is recommended before material transfer. Activities such as sanding, burning off etc. of paint films may generate dust and/or fumes hazardous to the skin and lungs. Work in well ventilated areas. Use local exhaust ventilation and personal skin and respiratory protective equipment as appropriate.

Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use non-sparking tools. Store away from heat, sparks, open flame and other ignition sources. Take precautionary measures against electrostatic discharges.

**Storage:** Store inside between 40F-100F. Storage areas should be dry and well-ventilated. Eliminate all ignition sources.

#### 8. Exposure Controls / Personal Protection

**Engineering Controls:** It is recommended that work be done in an adequately ventilated area (i.e., ventilation sufficient to maintain concentrations below one half of the PEL and other relevant standards). Local exhaust ventilation is recommended when general ventilation is not sufficient to control airborne contamination. Use explosion-proof ventilation equipment.

**Respiratory Protection:** Appropriate respirators must be used, and a program that follows 29 CFR 1910.134 or other applicable regulatory requirements must be followed, when workplace hazards warrant the use of a respirator. NIOSH-approved or other appropriate respirators must be used when respiratory protection is necessary.

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**Eye Protection:** Wear appropriate goggles, face shields or other PPE, which will be effective under the circumstances if the possibility of contact exists. A program meeting 29 CFR 1910.133 or other applicable regulatory requirements must be followed when PPE is necessary.

**Other Protective Equipment:** Use impermeable gloves and protective clothing as necessary to prevent skin contact.

**Hygienic Practices:** Do not eat, drink, chew tobacco or gum, or apply cosmetics while working with this product. Wash hands before performing any of these activities.

| <b>Chemical Name</b>                                | <b>CAS Number</b> | <b>ACGIH TLV TWA</b> | <b>ACGIH TLV STEL</b> | <b>OSHA PEL C</b> | <b>OSHA PEL TWA</b> |
|---|-------------------|----------------------|-----------------------|-------------------|---------------------|
| 1,6-HEXAMETHYLENE DIISOCYANATE BASED POLYISOCYANATE | 28182-81-2        | N.D.                 | N.D.                  | N.D.              | N.D.                |
| 2-ETHOXYETHYL ACETATE                               | 111-15-9          | 5 ppm                | N.D.                  | N.D.              | 100 ppm             |
| ETHYL ACETATE                                       | 141-78-6          | 400 ppm              | N.D.                  | N.D.              | 400 ppm             |
| TOLUENE   | 108-88-3          | 20 ppm               | N.D.                  | 300 ppm           | 200 ppm             |
| XYLENE  | 1330-20-7         | 100 ppm              | 150 ppm               | N.D.              | 100 ppm             |
| ETHYLBENZENE  | 100-41-4          | 100 ppm              | 125 ppm               | N.D.              | 100 ppm             |
| HEXAMETHYLENE DIISOCYANATE                          | 822-06-0          | 0.005 ppm            | N.D.                  | N.D.              | N.D.                |

## 9. Physical and Chemical Properties

### Theoretical Values

|                              |           |   |      |
|------------------------------|-----------|---|------|
| <b>Boiling Range (F):</b>    | 172 - 313 | <b>VOC (g/l)(less water &amp; exempt):</b>    | 591  |
| <b>Freeze Point (F):</b>     | N.D.      | <b>VOC (lb/gal)(less water &amp; exempt):</b> | 4.9  |
| <b>Specific Gravity:</b>     | 1.0       | <b>% Solids By Weight:</b>                    | 41   |
| <b>Appearance:</b>           | clear     | <b>% Solids By Volume:</b>                    | 36   |
| <b>Physical State:</b>       | liquid    | <b>Density (lb/gal):</b>                      | 8.3  |
| <b>Odor:</b>                 | solvent   | <b>Flashpoint (F):</b>                        | 25   |
| <b>Odor Threshold (ppm):</b> | N.D.      | <b>Vapor Pressure:</b>                        | N.D. |
| <b>Vapor Density:</b>        | < 5.80    | <b>Evaporation Rate:</b>                      | N.D. |
| <b>pH:</b>                   | N.A.      | <b>Coefficient of water/oil distribution:</b> | N.D. |

## 10. Stability and Reactivity

**Conditions To Avoid:** Avoid contact with heat, open flame, sparks, or ignition sources. If moisture enters the container, carbon dioxide gas may form and cause the container lid to bulge or pop off. Open flames and sparks.

**Hazardous Polymerization:** May occur.

**Stability:** Stable.

## 11. Toxicological Information

| <b>Chemical Name</b>                                | <b>LD50</b>           | <b>LC50</b>                                     | <b>IARC</b> | <b>NTP</b> | <b>OSHA</b> |
|---|-----------------------|---|-------------|------------|-------------|
| 1,6-HEXAMETHYLENE DIISOCYANATE BASED POLYISOCYANATE | Oral Rat: >5000 mg/kg | N.D.  |             |            |             |
| 2-ETHOXYETHYL ACETATE                               | Oral Rat: 2900 mg/kg  | Inhalation Rat: 12100 mg/m <sup>3</sup> /8H     |             |            |             |
| ETHYL ACETATE                                       | N.D.                  | Inhalation Rat: 200 gm/m <sup>3</sup>           |             |            |             |
| TOLUENE   | Oral Rate: 5000 mg/kg | Inhalation Rat: 8000 ppm/4H                     |             |            |             |
| XYLENE  | Oral Rat: 4300 mg/kg  | Inhalation Rat: 5000 ppm/4H;                    |             |            |             |
| ETHYLBENZENE  | Oral Rat: 3500 mg/kg  | N.D.  | Group 2B    |            |             |
| HEXAMETHYLENE DIISOCYANATE                          | Oral Rat: 710 mg/kg   | Inhalation Rat: 310-350 mg/m <sup>3</sup> /1-4H |             |            |             |

**Irritancy of Product:** This product contains ingredient(s) that are irritating to skin and eyes.

**Sensitization to Product:** This product contains ingredient(s) that are known skin and respiratory sensitizers.

**Carcinogenicity:** See IARC, NTP and OSHA data above.

**Reproductive Toxicity:** No Information.

**Teratogenicity:** No Information.

**Mutagenicity:** No Information.

**12. Ecological Information**

AkzoNobel has not conducted specific studies on the eco toxicity or environmental fate of this product. Commonly available data on certain ingredients indicate that acute or chronic effects could result from uncontrolled releases to soil, ground water, storm waters, or air. Appropriate measures should be taken to prevent uncontrolled releases. Prompt containment and clean up should be performed if releases do occur.

**13. Disposal Considerations**

Legal disposition of wastes is the responsibility of the owner/generator of the waste. Applicable federal, state, and/or local regulations must be followed during treatment, storage, or disposal of waste containing this product. Do not dispose of in an uncontrolled manner.

**14. Transport Information**

|                                  |                        |                                   |                        |                                  |                        |
|----------------------------------|------------------------|-----------------------------------|------------------------|----------------------------------|------------------------|
| <b>DOT Proper Shipping Name:</b> | Paint Related Material | <b>IATA Proper Shipping Name:</b> | Paint Related Material | <b>IMO Proper Shipping Name:</b> | Paint Related Material |
| <b>DOT Hazard Class:</b>         | 3                      | <b>IATA Hazard Class:</b>         | 3                      | <b>IMO Hazard Class:</b>         | 3                      |
| <b>DOT UN Number:</b>            | UN1263                 | <b>IATA UN Number:</b>            | UN1263                 | <b>IMO UN Number:</b>            | UN1263                 |
| <b>DOT Packing Group:</b>        | II                     | <b>IATA Packing Group:</b>        | II                     | <b>IMO Packing Group:</b>        | II                     |
| <b>Label Codes:</b>              | 3                      | <b>IATA Hazard Subclass:</b>      | N/A                    | <b>IMO Subsidiary Risk:</b>      | N/A                    |
| <b>Resp. Guide Page:</b>         | 128                    |                                   |                        | <b>Marine Pollutant:</b>         | Yes                    |

| <b>Chemical Name</b>       | <b>CAS Number</b> | <b>CERCLA RQ</b> |
|----------------------------|-------------------|------------------|
| ETHYL ACETATE              | 141-78-6          | 5000 LBS         |
| TOLUENE                    | 108-88-3          | 1000 LBS         |
| XYLENE                     | 1330-20-7         | 100 LBS          |
| ETHYLBENZENE               | 100-41-4          | 1000 LBS         |
| HEXAMETHYLENE DIISOCYANATE | 822-06-0          | 100 LBS          |

**15. Regulatory Information****U.S. FEDERAL REGULATIONS: As follows -**

**CERCLA - SARA Hazard Category:** This product is considered, under applicable definitions, to meet the following categories: IMMEDIATE HEALTH HAZARD, CHRONIC HEALTH HAZARD, FIRE HAZARD, REACTIVE HAZARD

**SARA Section 313:** This product contains the following substances subject to the reporting requirements of Section 313 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and 40 CFR 372:

| <b>Chemical Name</b>       | <b>313 Category</b> | <b>CAS Number</b> | <b>WT %</b> |
|----------------------------|---------------------|-------------------|-------------|
| 2-ETHOXYETHYL ACETATE      | Glycol Ethers       | 111-15-9          | 24.7        |
| TOLUENE                    |                     | 108-88-3          | 10.1        |
| XYLENE                     |                     | 1330-20-7         | 2.7         |
| ETHYLBENZENE               |                     | 100-41-4          | 0.7         |
| HEXAMETHYLENE DIISOCYANATE | Diisocyanates       | 822-06-0          | 0.3         |

**Clean Air Act:** This product contains the following chemical substances listed as Hazardous Air Pollutants (HAPs) under the Clean Air Act of 1990:

| <b>Chemical Name</b>       | <b>HAP Category</b> | <b>CAS Number</b> | <b>WT %</b> |
|----------------------------|---------------------|-------------------|-------------|
| 2-ETHOXYETHYL ACETATE      | Glycol Ethers       | 111-15-9          | 24.7        |
| TOLUENE                    |                     | 108-88-3          | 10.1        |
| XYLENE                     |                     | 1330-20-7         | 2.7         |
| ETHYLBENZENE               |                     | 100-41-4          | 0.7         |
| HEXAMETHYLENE DIISOCYANATE |                     | 822-06-0          | 0.3         |

**Toxic Substances Control Act:** All the components of this product comply with applicable requirements of the US EPA TSCA inventory. Contains the following chemical(s) subject to the reporting requirements of TSCA 12b if exported from the US.

| <b>Chemical Name</b>  | <b>CAS Number</b> |
|-----------------------|-------------------|
| 2-ETHOXYETHYL ACETATE | 111-15-9          |

**U.S. STATE REGULATIONS: As follows -**

**California Proposition 65:** WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

**INTERNATIONAL REGULATIONS: As follows -**

**Canadian WHMIS Class:** B2 D2A

**CPRC:** This product has been classified in accordance with the hazard criteria of the Controlled Product Regulations and the MSDS contains all of the information required by the Controlled Product Regulations.

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Canadian DSL - All the components of this product are listed or are exempt from listing.  
 European EINECS - All the components of this product are listed or are exempt from listing.  
 Korean Inventory - All the components of this product are listed or are exempt from listing.  
 Australian AICS - All the components of this product are listed or are exempt from listing.

|                              |
|------------------------------|
| <b>16. Other Information</b> |
|------------------------------|

National Paint & Coatings Association (NPCA) Hazardous Material Identification System (HMIS):

Health: 2                      Flammability: 3                      Reactivity: 1                      Personal Protection: See Section 8

**Legend:** N.A. - Not Applicable, N.D. - Not Determined

**FOR PROFESSIONAL USE ONLY**

**IMPORTANT NOTE** The information in this data sheet is not intended to be exhaustive and is based on the present state of our knowledge and on current laws: any person using the product for any purpose other than that specifically recommended in the technical data sheet without first obtaining written confirmation from us as to the suitability of the product for the intended purpose does so at his own risk. It is always the responsibility of the user to take all necessary steps to fulfill the demands set out in the local rules and legislation. Always read the Material Data Sheet and the Technical Data Sheet for this product if available. All advice we give or any statement made about the product by us (whether in this data sheet or otherwise) is correct to the best of our knowledge but we have no control over the quality or the condition of the substrate or the many factors affecting the use and application of the product. Therefore, unless we specifically agree in writing otherwise, we do not accept any liability whatsoever for the performance of the product or for any loss or damage arising out of the use of the product. All products supplied and technical advice given are subject to our standard terms and conditions of sale. You should request a copy of this document and review it carefully. The information contained in this data sheet is subject to modification from time to time in the light of experience and our policy of continuous development. It is the user's responsibility to verify that this data sheet is current prior to using the product.

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**Revision Date:** 08/04/2009

|                              |
|------------------------------|
| <b>NPCA Label Statements</b> |
|------------------------------|

**DANGER!** Flammable liquid and vapor. May be harmful if absorbed through the skin. Vapor harmful. Harmful if swallowed. VAPOR AND SPRAY MIST HARMFUL. OVEREXPOSURE MAY CAUSE LUNG DAMAGE. MAY CAUSE ALLERGIC SKIN AND RESPIRATORY REACTION, EFFECTS MAY BE PERMANENT.

**NOTICE:** Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal. **INDIVIDUALS WITH LUNG OR BREATHING PROBLEMS OR PRIOR REACTION TO ISOCYANATES MUST NOT BE EXPOSED TO VAPOR OR SPRAY MIST.** Causes eye irritation. Causes skin irritation. Causes nose and throat irritation. Vapor harmful. May affect the brain or nervous system causing dizziness, headache or nausea. Birth defect hazard. Contains ingredients which can cause birth defects. Contains ingredients which may be a reproductive hazard based on animal data. Contains ingredients which can cause blood damage.

**First Aid:** In case of contact, immediately flush eyes or skin with plenty of water for at least 15 minutes. Remove contaminated clothing and shoes. Get medical attention immediately. Launder clothing before reuse. If you experience difficulty in breathing, leave the area to obtain fresh air. If continued difficulty is experienced, get medical attention immediately. If swallowed, do not induce vomiting. Get medical attention immediately.

Vapors may cause flash fire. Keep away from heat, sparks and flame. Do not smoke. Extinguish all flames and pilot lights, and turn off stoves & ovens, heaters, electric motors and other sources of ignition during use and until all vapors are gone. Use only with adequate ventilation. Prevent build-up of vapors by opening all windows and doors to achieve cross-ventilation. Ensure fresh air entry during application and drying. If you experience eye watering, headache or dizziness or if air monitoring demonstrates vapor/mist levels are above applicable limits, wear an appropriate, properly fitted respirator (NIOSH approved) during and after application. Follow respirator manufacturer's directions for respirator use. Do not get in eyes, on skin or clothing. Do not breathe vapors. Wash thoroughly after handling. **FOR INDUSTRIAL USE ONLY.**

If spilled, contain spilled material and remove with inert absorbent. Dispose of contaminated absorbent, container and unused contents in accordance with local, state and federal regulations.