MATERIAL SAFETY DATA SHEET

SECTION I - PRODUCT IDENTIFICATION

Product Code: Alexander, Alicon, Nury, Accent, Starlight, Solids, Sparkle
Trade Name: GRANICOAT
Product Class: Unsaturated Polyester Resin
C.A.S. Number: Mixture
HMIS Rating: Health = 2 Fire = 3 Reactivity = 2

SECTION II - INGREDIENTS

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>CAS#</th>
<th>Max. Content</th>
<th>Exposure Limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Styrene Monomer</td>
<td>100-42-5</td>
<td>24%</td>
<td>50.0 ppm</td>
</tr>
<tr>
<td>Methyl Methacrylate</td>
<td>80-62-6</td>
<td>4%</td>
<td>100.0 ppm</td>
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<tr>
<td>Polyester Resin</td>
<td>Proprietary</td>
<td>Proprietary</td>
<td>Non Assigned</td>
</tr>
<tr>
<td>Galaxy Granules</td>
<td>N/A</td>
<td>Proprietary</td>
<td>N/A</td>
</tr>
<tr>
<td>Inorganic Filler</td>
<td>N/A</td>
<td>Proprietary</td>
<td>N/A</td>
</tr>
<tr>
<td>Pigment (TiO2)</td>
<td>13463-67-7</td>
<td>Proprietary</td>
<td>N/A</td>
</tr>
</tbody>
</table>

SECTION III - PHYSICAL DATA

Boiling Point: 270-300°F  Vapor Density: Heavier than air
Specific Gravity: 1.50  Volatile %: 28 by weight
Evaporation Rate: Slower than n-Butyl Acetate
Appearance: Colored liquid with high viscosity

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

Flammability Class: 1C  Flash Point: 92°F
LEL: 1.1
- EXTINGUISHING MEDIA: Water spray, foam, dry chemical, carbon dioxide or any Class B extinguishing agent.
- SPECIAL FIRE FIGHTING PROCEDURE: Fire fighters and others exposed to vapors or products of combustion should wear self-contained breathing apparatus. Equipment should be thoroughly decontaminated after use.
- UNUSUAL FIRE & EXPLOSION HAZARDS: At elevated temperatures, such as in a fire, polymerization may take place. If polymerization takes place in a closed container, there is the possibility of violent rupture of the container. Product vapor may form an explosive mixture in air.
SECTION V - HEALTH HAZARD DATA

- PERMISSIBLE EXPOSURE LEVEL: OSHA, PEL and ACGIH TLV for styrene are 50 ppm for an eight hour Time Weighted Average (TWA). The OSHA and ACGIH Short Term Exposure Level (STEL) are 100 ppm for a fifteen minute period (no ceiling for brief exposures), however the average for a single STEL period must not exceed 100 ppm.

- EFFECTS OF OVEREXPOSURE:
  SKIN: Prolonged or frequent contact may cause defatting and dryness of the skin with resultant irritation and possible dermatitis. Styrene may be absorbed through the skin in toxic amounts.
  EYES: May cause irritation. Liquid splashes may result in more serious injuries. May cause lachrymation (tears).
  INHALATION: Vapors may cause mucous membrane irritation and upper respiratory tract discomfort. High concentrations may result in headache, nausea, insensitivity and other central nervous system effects.
  INGESTION: May cause gastrointestinal disturbances, pain and discomfort.

- FIRST AID:
  SKIN: Wash with soap and water.
  EYES: Flush with copious amounts of water for 15 minutes. Seek immediate medical aid.
  INHALATION: Remove victim from exposure. If victim is unconscious, administer artificial respiration and/or oxygen as needed. Seek medical aid.
  INGESTION: DO NOT INDUCE VOMITING (aspiration hazard). Seek immediate medical help.

- PRIMARY ROUTE(S) OF ENTRY: Inhalation and skin absorption.

SECTION VI - REACTIVITY DATA

- STABILITY: ___Unstable x_Stable
- HAZARDOUS POLYMERIZATION: x_May occur ___May NOT occur
- INCOMPATIBILITY: Strong acids and oxidizing agents.
- CONDITIONS TO AVOID: Heat and direct sunlight.
- HAZARDOUS DECOMPOSITION PRODUCTS:
  Heating of this material to decomposition may cause the emission of irritating acrid fumes.

SECTION VII - SPILL OR LEAK PROCEDURES

- STEPS TO TAKE IN CASE MATERIAL IS RELEASED OR SPILLED:
  Remove all sources of ignition. Ventilate area. Absorb spill with an absorbent material such as sawdust, vermiculite or sand and place in a closed container. If large spill, dike the area to prevent this material from entering water systems or sewers. This material contains the following ingredients which, if spilled or released in quantities equal to or greater than the Reportable Quantity (RQ), are subject to the reporting requirements of CERCLA and/or SARA (40 CFR parts 302 & 355):
  - Styrene Monomer RQ Value = 1,000 lbs
  - Methyl Methacrylate RQ Value = 1,000 lbs

- WASTE DISPOSAL METHOD:
  This material has been tested and found to have a flash point below 140°F. If discarded, this material and containers should be treated as hazardous wastes based on the characteristic of ignitability as defined under the federal RCRA regulations (40 CFR 261). Disposal of this material and its container, requires compliance with applicable labeling, packaging, and record keeping standards. Solidified and/or scrap finished product is Non-hazardous under RCRA. Check local regulation for details on disposal. For further information, contact your state or local waste agency or the Federal EPA RCRA hotline (800-424-9346 or 202-382-3000).
SECTION VIII - SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION: If a TLV or PEL listed in section V of this data sheet is exceeded, then suitable respiratory protection must be worn to prevent overexposure.

- VENTILATION: General ventilation is required during normal use. Local ventilation may be required during certain operations to keep exposure levels below the TLV listed in Section II of this data sheet.
- PROTECTIVE GLOVES: Wear appropriate impervious gloves to prevent skin contact.
- EYE PROTECTION: Wear face shield or protective goggles.
- OTHER PROTECTIVE EQUIPMENT: Wear protective clothing to prevent skin contact. Eye wash station and safety shower should be available.

SECTION IX - SPECIAL PRECAUTIONS

- PRECAUTIONS TO BE TAKEN FOR HANDLING AND STORING: Avoid storage above 72°F. Avoid prolonged or repeated skin contact. Avoid inhalation of heated vapors or spray mists.
- OTHER PRECAUTIONS: Avoid improper addition of promoter and/or catalyst. A promoter and catalyst used with this product should be mixed separately with the product and must never be mixed together.

SECTION X - SUPPLEMENTAL INFORMATION

- REGULATORY INFORMATION: SCAQMD Rule 1162 establishes specific process, control, housekeeping and record keeping requirements for fabrication operations using polyester resin materials. It is the responsibility of the fabricator to ensure compliance with these requirements. Styrene is NOT currently listed as a carcinogen by California's Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65).
- SARA HAZARD CLASSIFICATION: This material has been categorized as having the following hazard(s) as defined by SARA Title III regulations (40 CFR 370): acute, fire.
- SARA SECTION 313 LISTED INGREDIENTS: The following ingredients in this material are subject to the reporting requirements of section 313 of SARA and 40 CFR 372 {see Section II for percentage of ingredient(s)}.
  - Styrene Monomer (100-42-5)
  - Methyl Methacrylate (80-62-6)
- DOT PROPER SHIPPING NAME: Resin Solution
- UN NUMBER: UN1866
- DOT HAZARD CLASS: Flammable liquid
- PACKAGING GROUP: 3

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SECTION 1 - IDENTIFICATION OF THE PRODUCT AND THE COMPANY

<table>
<thead>
<tr>
<th>PRODUCT NAME</th>
<th>NOROX® MEKP-9</th>
</tr>
</thead>
<tbody>
<tr>
<td>MANUFACTURER</td>
<td>Norac, Inc.</td>
</tr>
<tr>
<td>ADDRESS</td>
<td>405 S. Motor Ave., Azusa, CA 91702</td>
</tr>
<tr>
<td>CHEMICAL NAME</td>
<td>Dimethyl Phthalate 131-11-3 43</td>
</tr>
<tr>
<td>CHEMICAL FAMILY</td>
<td>Organic Peroxide - Ketone Peroxide</td>
</tr>
</tbody>
</table>

SECTION 2 - COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>COMPONENTS</th>
<th>CAS NO.</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Methyl Ethyl Ketone Peroxide</td>
<td>1338-23-4</td>
<td>34</td>
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<tr>
<td>Dimethyl Phthalate</td>
<td>131-11-3</td>
<td>43</td>
</tr>
<tr>
<td>2,2,4-Trimethyl-1,3-pentanedi diisobutyrate</td>
<td>6846-50-0</td>
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<tr>
<td>Hydrogen Peroxide</td>
<td>7722-84-1</td>
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<tr>
<td>Methyl Ethyl Ketone</td>
<td>78-93-3</td>
<td>02</td>
</tr>
<tr>
<td>Water</td>
<td>7732-18-5</td>
<td>01</td>
</tr>
</tbody>
</table>

SECTION 3 - HAZARD IDENTIFICATION OF THE PREPARATION

| PHYSICAL HAZARDS       | Organic Peroxide. Decomposition |
| HEALTH HAZARDS         | Severe Irritant |
| EXPOSURE LIMITS        | The ACGIH Ceiling STEL is 1.5 mg/m³ (0.2 ppm) for Methyl Ethyl Ketone Peroxide. |
| ROUTES OF EXPOSURE     | Skin Contact |
|                        | Severe skin irritant, causes redness, blistering, and edema. |
|                        | Eye Contact |
|                        | Eye contact causes severe corrosion and may cause blindness. |
|                        | Ingestion |
|                        | Human systemic effects by ingestion: changes in structure or function of esophagus, nausea, or vomiting, and other gastrointestinal effects. |
|                        | Inhalation |
|                        | Moderately toxic by inhalation. |
| EFFECTS OF OVER-EXPOSURE | Prolonged inhalation of vapors may cause mucous membrane irritation and vertigo. |
|                        | There are no known medical conditions, which are recognized as being aggravated by exposure. |

SECTION 4 - FIRST-AID MEASURES

**Skin**
Immediately remove any contaminated clothing. Wash contaminated area thoroughly with soap and copious amounts of water for at least 15 minutes. If irritation or adverse symptoms develop seek medical attention.

**Eyes**
Remove any contact lenses at once. Flush eyes with water for at least 15 minutes. Ensure adequate flushing by separating the eyelids with fingers. If irritation or adverse symptoms develop seek medical attention.

**Ingestion**
Do Not induce vomiting. Drink plenty of water. Immediately call a physician. For aid to physician, suggest local Poison Control Center.

**Inhalation**
Remove to fresh air, if coughing, breathing becomes labored, irritation develops or other symptoms develop, seek medical attention at once, even if symptoms develop several hours after the exposure.

SECTION 5 - FIRE-FIGHTING MEASURES

| FLASH POINT            | >200°F (93°C) C.O.C |
| FLAMMABLE LIMITS       | Unknown |
| AUTOIGNITION POINT     | Unknown |
| EXTINGUISHING MEDIA    | Water from a safe distance - preferably with a fog nozzle. In case of very small fires, other means such as carbon dioxide, foam or dry chemical extinguishers may be effective. Dry chemical combined with MEKP formulations may re-ignite. Light water additives may be particularly effective at extinguishing MEKP fires. |
SPECIAL FIRE FIGHTING PROCEDURES
Firemen should be equipped with protective clothing and SCBA’s. In case of fire near storage area, cool the containers with water spray. If dry chemical is used to extinguish an MEKP fire, the extinguished area must be thoroughly wetted down with water to prevent re-ignition.

UNUSUAL FIRE AND EXPLOSION HAZARDS
The heat of decomposition of the peroxides adds to the heat of the fire. Dry chemical fire extinguishing agent may catalyze the decomposition.

SECTION 6 - ACCIDENTAL RELEASE MEASURES
STEPS TO BE TAKEN IN EVENT OF SPILL OR RELEASE
Dike spill to prevent runoff from entering drains, sewers, streams, etc. Wet spilled material with water and absorb with an inert absorbent material such as perlite, vermiculite, or sand. Sweep up using non-sparking tools and place in a clean polyethylene drum or a polyethylene pail. DO NOT place into a steel container, lined or unlined, as a decomposition may occur. Treat any contaminated cardboard packaging as hazardous waste. Wet container contents with additional water prior to sealing.

SECTION 7 - HANDLING AND STORAGE
HANDLING
Rotate stock using the oldest material first. Avoid contact with skin, eyes and clothing. Use PPE as specified in Section 8. Keep containers closed to prevent contamination. Keep away from sources of heat, sparks or flame. Do not add to hot solvents or monomers as a violent decomposition and/or reaction may result. When using spray equipment, never spray raw MEKP onto curing or into raw resin or flues. Keep MEKP in its original container. DO NOT USE NEAR FOOD OR DRINK. Wash thoroughly after handling.

STORAGE
The stability of MEKP formulations is directly related to the shipping and storage temperature history. Cool storage at 80°F or below is recommended for longer shelf life and stability. Prolonged storage at elevated temperatures of 100°F and higher will cause product degradation, gassing and potential container rupture which can result in a fire and/or explosion. Store out of direct sunlight in a well ventilated area away from combustible and incompatible materials. DO NOT STORE WITH FOOD OR DRINK. Refer to NFPA 432 Code for the Storage of Organic Peroxide Formulations from the National Fire Protection Association for additional storage information.

OTHER PRECAUTIONS
Unmixed, uncontaminated material, remaining at the end of the day, shall be returned to a proper organic peroxide storage area. Under no circumstances should material be returned to the original container.

SECTION 8 - EXPOSURE CONTROL/PERSONAL PROTECTION
VENTILATION Mechanical, general.
RESPIRATORY PROTECTION
If airborne concentrations are expected to exceed acceptable levels wear a NIOSH/MSHA approved air-purifying respirator with an organic vapor cartridge or canister. When using respirators refer to OSHA’s 29CFR 1910.134.

EYE PROTECTION
Safety goggles recommended. Permanent eyewash is highly recommended.

HAND PROTECTION
Protective gloves recommended, solvent resistant, such as butyl rubber, nitrile or neoprene.

OTHER
A safety shower and eyewash is recommended when the risk of a significant exposure exits.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES
APPEARANCE AND ODOR: Water white liquid with a slight odor.
BOILING POINT: Unknown
VAPOR PRESSURE: Unknown
VAPOR DENSITY: > 1
EVAPORATION RATE: Unknown
% VOLATILE BY VOLUME: Unknown
SOLUBILITY IN WATER: Slightly soluble in water.
SPECIFIC GRAVITY: 1.1
FLASH POINT: >200°F (93°C) C.O.C
FLAMMABLE LIMITS: Unknown
SADT: >60°C (140°F)
pH: Not applicable
SECTION 10 - STABILITY AND REACTIVITY

STABILITY
Stable when kept in original, closed container, out of direct sunlight at temperatures below 80°F (27°C).

CONDITIONS TO AVOID
Contamination. Direct sunlight. Open flames. Prolonged storage above 100°F (38°C). Storage above SADT. Storage near flammable or combustible materials.

MATERIALS TO AVOID
Dimethylaniline, cobalt napthenate and other promoters, promoted resins, accelerators, oxidizing and reducing agents, strong acids, bases, metals, metal alloys and salts, sulfur compounds, amines or any hot material.

HAZARDOUS DECOMPOSITION PRODUCTS
Decomposition products are flammable. Acrid smoke and irritating fumes.

HAZARDOUS POLYMERIZATION
Will not occur.

SECTION 11 - TOXICOLOGICAL INFORMATION

Methyl Ethyl Ketone Peroxide
Hazard Data:
Inhalation: Rat--LC50: 200 ppm/4 hr, lung, thorax, respiration, or dyspnea; Mouse--LC50: 170 ppm/4 hr, lung, thorax, respiration, or dyspnea.
Intraperitoneal: Rat--LD50: 65 mg/kg, behavioral, muscle weakness behavioral, ataxia.
Oral: Rat--LD50: 484 mg/kg; Mouse--LD50: 470 mg/kg; Human--TDLo: 480 mg/kg, changes in structure or function of esophagus gastrointestinal, nausea or vomiting gastrointestinal.
Skin: Rabbit--LD50: 500 mg.

Dimethyl Phthalate
Hazard Data:
Inhalation: Cat--LC10: 9300 mg/m3/6.5 hr.
Intraperitoneal: Mouse--LD50: 1380 mg/kg.
Oral: Rat & Mouse--LD50: 6800 mg/kg, somnolence behavioral, withdrawal nutritional and gross metabolic, weight loss or decreased weight gain; Dog--LD: >1400 mg/kg; Rabbit--LD50: 4400 uL/kg.
Subcutaneous: Mouse--LD50: 6500 mg/kg, dyspnea lung, thorax, respiration, or cyanosis.

2,2,4-Trimethyl-1,3-pentanediol diisobutyrate
Hazard Data:
Oral: Rat--LD50: >3200 mg/kg.

Hydrogen Peroxide
Hazard Data:
Inhalation: Mouse--LC10: 227 ppm; Rat--TCLo: 67 ppm/6hr/6W-1, dermatitis, irritative of the skin.
Intraperitoneal: Mouse--LD50: 880 mg/kg.
Intravenous: Rabbit--LD50: 15 gm/kg, behavioral, convulsions or effect on seizure threshold.
Oral: Rat--LD50: 376 mg/kg, gastrointestinal, peritonitis blood, pigmented or nucleated red blood cells; Mouse--LD50: 2 mg/kg.
Subcutaneous: Rat--LD50: 620 mg/kg; Mouse--LD50: 1072 mg/kg.
Skin: Rat--LD50: 4060 mg/kg, lung, thorax, respiration, or pulmonary emboli; Rabbit--LD50: 500 mg/kg, behavioral, convulsions or effect on seizure threshold.

Methyl Etyl Ketone
Hazard Data:
Inhalation: Rat--LC50: 23500 mg/m3/8hr.
Intraperitoneal: Rat--LD50: 607 mg/kg; Mouse--LD50: 616 mg/kg.
Oral: Rat--LD50: 2737 mg/kg; Mouse--LD50: 4050 mg/kg.
Skin: Rabbit--LD50: 6480 mg/kg.

SECTION 12 - ECOLOGICAL INFORMATION

No data is available on the preparation itself. The product should be prevented from entering drains, sewers, streams, etc.

Ecotoxicity: Methyl ethyl ketone peroxide: EC50 (Guppy), 44.2 mg/L/96 hr; EC50 (alga), 42,700 ug/L/96 hr.

Environmental Fate: Methyl ethyl ketone peroxide (MEKP) was evaluated for biodegradability in a closed bottle system and was reported to be readily biodegradable. An EC50 of 16mg MEKP/L activated sludge was reported in an activated sludge respiration inhibition test.
SECTION 13 - DISPOSAL CONSIDERATIONS
Prevent material from entering drains, sewers, streams, etc.
Immediately dispose of waste material at a RCRA approved hazardous waste management facility in accordance with federal, state and local regulations.

SECTION 14 - TRANSPORT INFORMATION

DOT Shipping Name: ORGANIC PEROXIDE TYPE D, LIQUID
(METHYL ETHYL KETONE PEROXIDE, ≤45%)
DOT Hazard Class: 5.2
UN/NA ID No.: UN3105
DOT Packing Group: PG II
DOT RQ: RQ
Labels: 5.2 (Organic Peroxide)
2000 ERG GUIDE NO.: 145

SECTION 15 - REGULATORY INFORMATION
The following chemicals are subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dimethyl Phthalate</td>
<td>131-11-3</td>
<td>43</td>
</tr>
<tr>
<td>Methyl Ethyl Ketone</td>
<td>78-93-3</td>
<td>02</td>
</tr>
</tbody>
</table>

Reportable Quantity
2-Butanone Peroxide (MEKP): 10 lbs (4.54 kg)

Australian Inventory of Chemical Substances (AICS)
The ingredients in this product are listed in the Australian AICS Inventory.

Canadian Domestic Substances List (DSL)
The ingredients in this product are listed in the Canadian DSL Inventory.

European Inventory of Existing Commercial Chemical Substances (EINECS)
The ingredients in this product are listed in the European EINECS Inventory.

TSCA Status
The ingredients in this product are listed in the US Toxic Substances Control Act (TSCA) Inventory.

Status of Carcinogenicity
Not recognized as a carcinogen by the IARC, NTP or OSHA.

SECTION 16 - OTHER INFORMATION

VOC Information
Using ASTM Test Method D-2369-87, but at 40°C (since MEKP decomposes rapidly above 100°C and is not a VOC), MEKP-9 contains 2.4% VOC, by weight, or 27 grams per liter. For more information call Norac.

NFPA 432 Organic Peroxide Classification
Class III

<table>
<thead>
<tr>
<th>Health</th>
<th>Flammability</th>
<th>Reactivity</th>
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</thead>
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<tr>
<td>3</td>
<td>2</td>
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</table>

MSDS Reference: MEKP-9 MSDS 0408.9

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