

## SAFETY DATA SHEET

1. IDENTIFICATION	
<b>Product:</b>	Polypropylene   Micronized Polypropylene Wax Powder
<b>Supplier:</b>	Torginol, Inc.
<b>Address:</b>	4617 South Taylor Drive Sheboygan, WI 53081 USA
<b>Phone:</b>	(920) 694-4800
<b>Facsimile:</b>	(920) 694-4801
<b>Email:</b>	service@torginol.com
<b>Website:</b>	www.torginol.com
<b>Emergency:</b>	(920) 694-4800 or consult a physician

2. HAZARDS IDENTIFICATION	
<b>Classification</b>	
OSHA 29CFR 1910.1200	Combustible dust
REGULATION (EC) No 1272/2008	Not a hazardous substance or mixture
<b>Label Elements</b>	
OSHA 29CFR 1910.1200	WARNING – May form combustible dust concentrations in the air
REGULATION (EC) No 1272/2008	Not a hazardous substance or mixture
<hr/> <p style="margin: 0;"><i>EMERGENCY OVERVIEW</i></p> <p style="margin: 0;"><i>These products are micronized powders. Static charges on the powders may ignite flammable atmospheres. High levels of product dust in the atmosphere may present a dust explosion hazard.</i></p> <p style="margin: 0;"><i>(See Dust Hazard Reference in Section 16.)</i></p> <hr/>	

3. COMPOSITION / INFORMATION ON INGREDIENTS		
<b>Components</b>	<b>CAS Number</b>	<b>Composition</b>
Polypropylene	9003-07-0	100 %

4. FIRST-AID MEASURES
<b>Inhalation</b>
Remove victim to fresh air. If breathing is difficult, have qualified personnel administer oxygen. Seek medical attention if irritation or other symptoms persist.
<b>Skin contact</b>
Remove contaminated clothing. Wash with soap and water. If irritation develops, get medical attention.
<b>Eye contact</b>
Remove contact lenses if present and easy to do. Flush eyes thoroughly with large amounts of water, holding eyelids open. If irritation persists, seek medical attention.
<b>Ingestion</b>
Rinse mouth with water. Do not induce vomiting unless directed to do so by a medical professional. Dilute with 1-2 glasses of water. Never give anything by mouth to an unconscious or convulsing person. Get medical attention if symptoms develop.
<b>Most important symptoms/effects, acute and delayed:</b>
Dust may cause eye and respiratory irritation. Prolonged inhalation of high concentration of dust may cause adverse effects on the lungs.
<b>Indication of immediate medical attention and special treatment, if necessary:</b>
None required under normal conditions of use.

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### 5. FIRE-FIGHTING MEASURES

**OSHA Flammability Class:** Combustible solid.

**Suitable Extinguishing Media:** Carbon Dioxide, dry chemical or fine water spray. Avoid water stream on molten burning material as it may scatter and spread the fire.

**Special Firefighting Procedures:** Wear self-contained breathing apparatus and protective clothing approved by NIOSH. Watch footing on floors and stairs because of possible melting and spreading of material. Use spray to keep containers cool.

**Unusual Fire and Explosion Hazards:** Flash point >530 F 277 C. Melts in proximity to fires, causing slippery floors and stairs. When powder is suspended in air, these products could be FLAMMABLE/EXPLOSIVE. In these circumstances, keep away from heat, sparks and open flames. Static charges on powders or powders in liquids may ignite flammable atmospheres. See Section 7 "HANDLING AND STORAGE" for suggestions on how to use these products under such conditions. Also refer to NFPA Bulletin 654, "Prevention of Fire and Dust Explosions in the Chemical, Dye, Pharmaceutical, and Plastics Industries", for safe handling procedures.

### 6. ACCIDENTAL RELEASE MEASURES

**STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:** Wear recommended personal protective equipment. Remove ignition sources. Sweep up with a minimum of dusting. Keep away from heat or flame. Collect in containers (e.g. fiberboard drums or cartons). If hot liquid, attempt to confine spill and let the polymer solidify. Once solid, it may be recovered as the powder. Report major leaks and spills to the appropriate local, state and federal government agencies.

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*(See Dust Hazard Reference in Section 16.)*

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### 7. HANDLING AND STORAGE

#### **Special Handling and Storage**

Always wear recommended personal protective equipment. Avoid breathing fumes from heating operations. Avoid spillage which can cause very slippery conditions on floors. Use good personal hygiene and housekeeping.

#### **STATIC ELECTRICITY AND FINE PARTICLE SIZE WAXES**

Electrostatic charges of non-conductive materials is a natural phenomenon ranging from harmless to a nuisance to a hazard, depending on the degree of charging and the environment where the discharge takes place. In the case of micronized polymers and waxes, very high levels of static electricity develop in their manufacture, transportation and handling. These products, being poor conductors of electricity, can and will hold a static charge for long periods of time. With this in mind, a great deal of care should be exercised when handling this type of product in or around flammable liquids, particularly if the liquid is at or near its flashpoint. The generation of static electricity cannot be prevented because its intrinsic origins are present at every particle interface. Some common sense approaches to the hazards involved with static electricity are as follows:

- Use only conductive equipment and keep all components grounded and bonded to the same vessel in order to equalize any potential charge.
- Avoid projections and probes that could lead to discharge between the charged polymer and probe.
- Avoid a flammable condition by the use of inert gases in the container or by providing sufficient exhaust so as to prevent a buildup of flammable solvent vapors.
- Never pour micronized polymers or waxes from a drum or large container directly into hot flammable solvents.
- Add micronized polymers or waxes slowly and in small quantities to hot flammable solvents.

## 7. HANDLING AND STORAGE (CONTINUED)

- If possible, do not permit the product to free fall directly into the solvent. Ideally, use a pipe or chute that leads down to the level of the solvent. Make sure the pipe or chute is grounded and bonded.
- If mechanical equipment must be used, a slow-turning screw feeder that is grounded and is preferred.
- Good housekeeping is of prime importance. The building and equipment should be designed to eliminate shelves and ledges and similar places where materials can accumulate.

The above are only suggestions and should not be taken as recommended practices in your establishment and in no way should be considered as comprehensive engineering controls. A more detailed discussion and recommended practices can be found in NFPA 77 issued by the National Fire Protection Association Inc. in 1988.

### Storage Recommendations

Store under ambient conditions. Avoid excessive heat. Do not store near strong oxidizing agents and amines.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**Engineering Controls:** Use with adequate general or local exhaust ventilation to maintain exposure levels below the occupational exposure limits.

**Respiratory Protection:** If the exposures are excessive, a NIOSH approved respirator with a dust/mist filter or supplied air respirator is recommended. Selection and use of respiratory equipment must be in accordance with OSHA 1910.134 and good industrial hygiene practice.

**Ventilation:** Face velocity greater than 60 cfm (adequate to capture wax dust or fumes).

**Skin Protection:** Use heat resistant, impervious gloves to avoid repeated/prolonged skin contact with molten material and powder. Other protective garments as necessary.

**Eye Protection:** Chemical safety goggles recommended to avoid eye contact. .

**Other:** Impervious clothing as needed to prevent contact.

**Work / Hygienic Practices:** Wash skin thoroughly with soap and warm water after handling and before smoking, eating or applying makeup. If clothes become contaminated, change to clean clothing. Do not wear contaminated clothing until properly laundered. Further information relating to the safe handling and use of fluorocarbon polymers may be found in DWE (NIOSH), Publication No. 77-193.

**Exposure Guidelines:** Powdered forms may generate nuisance particulates upon handling. ACGIH TLV = 10mg/m<sup>3</sup>. OSHA PEL 5mg/m<sup>3</sup>.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Physical Appearance:</b>	White Powder	<b>Relative Density:</b>	0.90 g/cc
<b>Odor:</b>	Typical Wax Odor	<b>Melting Point:</b>	330°F   166°C
<b>Boiling Point:</b>	N/A	<b>Flash Point:</b>	> 530°F   277°C
<b>Flammability:</b>	Combustible Solid	<b>Flammability Limit:</b>	450°F
<b>Vapor Density:</b>	Not Volatile	<b>Solubility in Water:</b>	Insoluble
<b>Coating V.O.C.:</b>	Not Volatile	<b>Material V.O.C.:</b>	Not Volatile

## 10. STABILITY AND REACTIVITY

<b>Reactivity:</b>	None known.
<b>Chemical Stability:</b>	Stable at normal conditions.
<b>Conditions to Avoid:</b>	None known.
<b>Incompatible Materials:</b>	None known.
<b>Hazardous Byproducts:</b>	None known.

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### 11. TOXICOLOGICAL INFORMATION

**Inhalation**

Excessive inhalation of dust may cause upper respiratory tract irritation, coughing and difficulty in breathing.

**Ingestion**

Swallowing may cause gastrointestinal irritation, nausea and diarrhea.

**Skin Contact:**

May cause mechanical skin irritation with redness and pain.

**Eye Contact:**

May cause mechanical irritation with redness and tearing.

**Chronic Effects from Short- and Long-Term Exposure:**

Prolonged inhalation of respirable dust may cause adverse lung effects

### 12. ECOLOGICAL INFORMATION

**Ecotoxicity**

No data have been developed on this subject. These products are not soluble in water. Potential environmental impact in case of spill or release is considered to be minimal.

**Persistence and degradability:** Biodegradation is not applicable to inorganic substances.

**Bioaccumulative potential:** No data available.

**Mobility in soil:** No data available.

**Other adverse effects:** None known.

### 13. DISPOSAL CONSIDERATIONS

**Waste Disposal Method:** Assume conformity with applicable disposal regulations. Preferred method of disposal is in closed containers of sufficient strength to eliminate leakage at approved incineration or chemical landfill waste disposal site in accordance with local regulations. Sewage disposal is discouraged.

**RCRA:** Is the unused product a RCRA hazardous waste if discarded? No.

The information offered here is for the product as shipped. Use and/or alterations to the product such as mixing with other materials may significantly change the characteristics of the material and alter the RCRA classification and the proper disposal method.

### 14. TRANSPORT INFORMATION

**Not Regulated:** Ship as Class 70

**NMFC Code:** 18062

### 15. REGULATORY INFORMATION

**U.S. Toxic Substances Control Act:** Compliant with regulations

**Sara Title III – Sections 312 & 313:** Not hazardous

**California Proposition 65:** No ingredients in this product are known to cause cancer, birth defects or reproductive hazards.

**Canadian Domestic Substances List:** All ingredients in this product are listed or exempt from listing.

### 16. OTHER INFORMATION

**Disclaimer**

The information contained herein is based on the data available to us and is believed to be correct. Torginol, Inc. makes no warranty expressed or implied regarding the accuracy of this data or the results to be obtained from the use thereof. Torginol, Inc. assumes no responsibility for injury, loss or damage from the use of the product described.

N/A = Not Applicable

N/D = Not Determined

N/E = Not Established