

10805

## Safety Data Sheet



Product name Celcon®  
MSDS number 870610081  
Revision Number 0

Revision Date  
Issuing date

NAGH/EN  
Oct.13.2015  
Oct.13.2015  
9742414  
RA35736  
RA29749  
RA36319  
RA36320

## 1. Product and company identification

Trade Name

**Celcon®**

The following SDS applies to products described by combinations of the following trade name, product grade and color code listed below.

**Product Grade(s):**

M25, M270™, M90™, M90-07, M90-34, M90-45H, M90-45XAP®, M90LF, MR90B, UV140LG, UV270Z, UV90Z

**Color Code:**

See Section 16 for list of Color Codes

**Ticona Polymer, Inc.**

A business of Celanese

8040 Dixie Hwy.

Florence, KY 41042

United States

www.celanese.com

**Transportation emergency phone numbers:**

In USA, call 800 424 9300

Outside USA, call 703 527 3887, collect calls accepted.

**Product Information**

1-800-833-4882

info-engineeredmaterials-am@celanese.com

**Synonyms:**

Acetal copolymer Polyoxymethylene copolymer

**Identified uses**

Plastic processing industry.

## 2. Hazard Identification

**According to Regulation 2012 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200:**

This material is not hazardous under the criteria of the Federal OSHA Hazard Communication Standard (29CFR 1910.1200)

## 3. Composition/information on ingredients

**Chemical characterization**

Polyacetal Copolymer / POM; CAS-RN of the basic polymer: 24969-26-4

Components	CAS-No	Percent %
Formaldehyde	50-00-0	Trace level contaminant

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**Remarks**

This product may contain proprietary ingredients.

This is a polymeric material. Any hazardous constituents are wetted by the polymer system, and therefore are unlikely to present exposure under normal conditions of processing and handling.

**4. First aid measures****Skin**

Cool skin rapidly with cold water after contact with molten polymer. Immediate medical attention is required. Do not peel solidified product off the skin.

**Eyes**

Immediately flush eye(s) with plenty of water. Call a physician if irritation persists.

**Inhalation**

Move to fresh air in case of accidental inhalation of vapors. Get medical attention immediately if symptoms occur.

**Ingestion**

If swallowed, do not induce vomiting - seek medical advice.

**Notes to physician**

This product is essentially inert and nontoxic. However, if it is overheated or burns, gases such as carbon monoxide and formaldehyde may be released. Those exposed to off-gases may need to have their arterial blood gases and carboxyhemoglobin levels checked. If the carboxyhemoglobin levels are normal and the exposure occurred in an enclosed space, asphyxia (carbon dioxide replacing oxygen) is a possibility. Formaldehyde is a respiratory irritant gas. If patients may have inhaled high concentrations of irritating fumes they should be monitored for delayed onset pulmonary edema.

**5. Fire-fighting measures**

**NFPA:**      **Health:** 1

**Flammability:** 0

**Instability:** 0

**Suitable extinguishing media**

Water, Foam, Dry powder, Dry chemical, Solid extinguishing agent

**Special exposure hazards arising from the substance or preparation itself, its combustion products, or released gases**

Hazardous combustion products

Carbon dioxide (CO<sub>2</sub>)

Carbon monoxide

Formaldehyde vapours

**Special protective equipment for fire-fighters**

Wear self-contained breathing apparatus and protective suit.

**Other Information**

Potential dust explosion hazard.

**6. Accidental release measures**



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**Personal precautions**

Remove all sources of ignition. Avoid dust formation.

**Environmental precautions**

No special environmental precautions required.

**Methods for cleaning up**

Use mechanical handling equipment. Dispose of in accordance with local regulations.

**7. Handling and storage****Advice on safe handling**

Do not handle hot or molten material without appropriate protective equipment. Do not exceed recommended process temperatures to minimize release of decomposition products. Provide for appropriate exhaust ventilation and dust collection at machinery. Maintain good housekeeping in work areas..

**Protection - fire and explosion:**

Do not smoke in areas where polymer dust is present.. Appropriate measures should be taken to control the generation and accumulation of dust during conveying and processing operations..

**Material storage**

Keep in a dry, cool place. Maintain dryness of resin.. To maintain product quality, do not store in heat or direct sunlight. Maximum storage temperature 40°C.

**Incompatible products**

oxidizing agents, Polyvinyl chloride, strong acids

**8. Exposure controls / personal protection****OSHA Exposure Limits**

Components	TWA
Formaldehyde	0.75 PPM

Components	STEL
Formaldehyde	2 PPM

**ACGIH Exposure Limits**

Components	Ceiling Limit Value:
Formaldehyde	0.3 PPM

Components	Celanese Workplace Exposure Limit
Formaldehyde	0.75 ppm (TWA); 2 ppm (STEL)

Components	2005 NIOSH IDLH
Formaldehyde	20 ppm

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**Mexico National Exposure Limits**

Components	Mexican Carcinogen Category
Formaldehyde	A2

Components	Mexican Ceiling Exposure Limit
Formaldehyde	3 mg/m <sup>3</sup> 2 PPM

**Exposure controls****Engineering measures**

General: May not be adequate as the sole means to control employee exposure.

Local Exhaust: Recommended when appropriate to control employee exposure to dust or process vapors.

**Protective equipment**

A safety shower and eyebath should be readily available.

**General advice**

Do not breathe dust. Avoid contact with skin and eyes.

**Respiratory protection**

In case of insufficient ventilation wear suitable respiratory equipment

**Skin protection:**

When thermal or melt processing, wear long pants, long sleeves, well insulated gloves, and face shield when there is a chance of contact.

**Eye/face protection:**

safety glasses with side-shields. Safety goggles.

**9. Physical and chemical properties****Appearance**

Form	pellets
Odor	slight specific
Flash point	Not applicable
Ignition temperature	320°C (608°F)
Method	ASTM D 1929
Density	approx 1.4 - 1.8 g/ml @ 20°C
Bulk density	approx 770 - 890 kg/m <sup>3</sup> @20 °C
Vapor pressure	not determined
Water solubility	insoluble

**10. Stability and reactivity**



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**Chemical stability**

Stable under normal conditions

**Conditions to avoid**

Flame Do not allow mixing of this material with PVC, other halogen containing materials, and partially and/or fully crosslinkable thermoplastic elastomers. Avoid temperatures above 238 °C / 460 °F.

**Incompatible Materials**

strong acids  
oxidizing agents  
Polyvinyl chloride

**Hazardous Combustion or Decomposition Products:**

Trioxane, formic acid, formaldehyde, paraformaldehyde,

**Possibility of hazardous reactions**

Polyvinyl chloride, Incompatible with strong acids and oxidizing agents.

## **11. Toxicological information**

**Potential health effects**

**Routes of exposure** Skin, eyes, inhalation, ingestion.

**Immediate effects**

<b>Skin</b>	Polymer particles may cause mechanical irritation. The molten product can cause serious burns.
<b>Eyes</b>	Resin particles, like other inert materials, are mechanically irritating to eyes
<b>Inhalation</b>	Overheating in processing may generate hazardous, irritating vapours. Dust irritating to respiratory tract.
<b>Ingestion</b>	Low toxicity by this route is expected based on the biological activity of high molecular weight polymers.
<b>Other:</b>	Formaldehyde, which is a degradation product, is listed as a potential cancer hazard by OSHA, a known human carcinogen by The International Agency for Research on Cancer (IARC, Group 1), and is listed in the 12th Report on Carcinogens (RoC) released by The National Toxicology Program (NTP). Formaldehyde should not pose a risk if exposures are kept below the OSHA Permissible Exposure Limit.

**Medical conditions which may be aggravated by exposure:** No specific information available on the product. Off-gases, which may be released if overheated, may affect those with chronic diseases of the respiratory system.

Toxicological data are not available. When handled appropriately, even after long years of experience with this product, no adverse health effects are known.

## **12. Ecological Information**

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## **12. Ecological Information**

**Ecotoxicity:** The effects of resin pellets on the wildlife that may ingest them is not well understood. In the case of seabirds, some marine biologists believe that the fowl may not be able to pass plastic pellets through their digestive tracts. Thus, large quantities of ingested pellets may cause intestinal blockage, false feelings of satiation or reduction in absorption of nutrients, causing malnutrition and starvation. The goal of SPI's Operation Clean Sweep is zero loss of pellets into the environment..

**Environmental Fate/Information:** This material is considered to be non-biodegradable..

## **13. Disposal considerations**

### **Disposal considerations**

Recycling is encouraged. Dispose of spilled material in accordance with state and local regulations for waste that is non-hazardous by Federal definition. Note that this information applies to the material as manufactured; processing, use, or contamination may make this information inappropriate, inaccurate, or incomplete.

This product as shipped is not a RCRA hazardous waste under present EPA regulations

## **14. Transport information**

**US Department of Transportation** Not regulated

**TDG** Not regulated

**Mexico Transport Information** Not regulated

**ICAO/IATA** Not restricted

**IMDG** Not regulated

## **15. Regulatory Information**

### **US State Regulations**

none

### **U.S. FEDERAL REGULATIONS**

#### **TSCA Inventory:**

This product complies with the U.S. Toxic Substances Control Act (TSCA).

#### **Environmental Regulations:**

#### **SARA 313 Chemicals**

Nickel Compounds (0.1-40 wt%)



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## SARA 311:

Acute health:	No
Chronic health:	No
Fire:	No
Sudden release of pressure:	No
Reactive:	No

## INTERNATIONAL REGULATIONS

### CANADIAN REGULATIONS

**WHMIS Classification:** Not a WHMIS controlled product.

#### WHMIS Ingredient Disclosure List IDL:

This product does not contain substances required to be disclosed according to the Canada WHMIS Ingredient Disclosure List.

## 16. Other information

NFPA:	Health: 1	Flammability: 0	Instability: 0
HMIS:	Health: 1	Flammability: 0	Physical Hazard: 0

#### Color code(s)

CA44051K10, CA44051, CB33739, CB34254K20, CB34307K20, CB34353K20, CB34999K25, CB35030K20, CC3063, CC33192, CC33300, CC33727, CC33734, CC34016, CC34067, CC34203, CC34424, CC34587, CC34643, CC34821K20, CC44780, CC9109D, CC9110D, CC9779A, CE34727K20, CG33747, CL33247, CL33520, CL34616, CN7540E, CS33644, CS34668K25, CS34721K20, CS35046, CS35158, CS35266, CV33502, CV33876, CV34019, CV35011, CV9772A, CY32790, CY33762, CY34901, CY44791K20, CY9195A

#### Prepared By

Product Stewardship Department  
Celanese

#### Sources of key data used to compile the datasheet

Information contained in this safety data sheet is based on Celanese owned data and public sources deemed valid or acceptable..

#### Other Information:

Observe national and local legal requirements

Except as otherwise noted, all of the trademarks referenced herein are owned by Ticona or its affiliates.

Changes against the previous version are marked by \*\*\*

This product is not intended for use in medical or dental implants.

The information contained herein is accurate to the best of our knowledge. We do not suggest or guarantee that any hazards listed herein are the only ones which exist. Celanese makes no warranty of any kind, express or implied, concerning the safe use of this material in your process or in combination with other substances. Effects can be aggravated by other materials and/or this material may aggravate or add to the effects of other materials. User has sole responsibility to determine the suitability of the materials for any use and the manner of use contemplated. User must meet all applicable safety and health standards.

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## Abbreviation and Acronym:

ADR = Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)  
CAS = Chemical Abstracts Service (division of the American Chemical Society)  
CLP = Classification, Labelling and Packaging  
DNEL = Derived No Effect Level  
EINECS = European Inventory of Existing Commercial Chemical Substances  
GHS = Globally Harmonized System of Classification and Labelling of Chemicals  
IATA = International Air Transport Association  
IBC Code = International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk (IMO)  
ICAO = International Civil Aviation Organization  
IMDG = International Maritime Code for Dangerous Goods





# SAFETY DATA SHEET

Prepared to U.S. OSHA, CMA, ANSI, Canadian WHMIS Standards, Australian WorkSafe, Japanese Industrial Standard JIS Z 7250:2000, and European Union standards

## 1. PRODUCT IDENTIFICATION

TRADE NAME (AS LABELED):

PRODUCT NUMBERS:

CHEMICAL NAME:

PRODUCT USE:

MANUFACTURER'S NAME:

ADDRESS:

BUSINESS PHONE:

FAX NUMBER:

DATE OF PREPARATION:

**Hot Melt Glue**

500, 601, 701, 702, 707, 708, 711, 724, 725, 726, 727, 729, 735, 738, 739, 3100, 3120, 3130, 3140, 3145, 3150, 3170, 3190, 3210, 3220, 3240, 1130320, AP5SB, BS-12, FM-15, FS-12, GS-15, HT-25, JS-12, RM-5H, RR-5, TL-15, WS-12, All DT, GL, CO and HL series

Hot Melt Glue

Hot Melt Adhesive

**FPC Corporation**

355 Hollow Hill Drive

Wauconda, IL 60084

847-487-4583

847-487-0174

July 13, 2015

## 2. HAZARD IDENTIFICATION

### EMERGENCY OVERVIEW:

**Product Description:** This product is a solid in various colors, with no odor.

**Health Hazards:** This product as supplied is not expected to cause adverse health effects.

**Flammability Hazards:** This product is combustible above flash point >450°F (>232°C) if exposed to ignition source.

**Reactivity Hazards:** None known.

**Environmental Hazards:** This material is not expected to be an environmental hazard

**Emergency Considerations:** Emergency responders must wear the proper personal protective equipment (and have appropriate fire-suppression equipment) suitable for the situation to which they are responding.

US DOT SYMBOLS

**Non-Regulated Material**

CANADA (WHMIS) SYMBOLS

**Not Controlled**

EUROPEAN and (GHS) Hazard Symbols

**None**

Signal Word: **None**

This product as supplied does not meet the definition of a hazard class, as defined by 29CFR 1910.1200 and the European Union Council Directives 67/548/EEC and subsequent Directives in 76/768/EEC. This product is being evaluated as an Article.

This product as supplied is classified as an "article" according to Title 29 of the Code of Federal Regulations, OSHA Part 1910.1200.

"Article means a manufactured item other than a fluid or particle, which is formed to a specific shape or design during manufacture which has end use function dependent in whole or in part upon its shape or design during end use, and which under normal conditions of use does not release more than very small quantities or trace amounts of a hazardous chemical, and does not pose a physical hazard or health risk to employees."

This product as supplied is odorless, stable, and poses no immediate hazard to health.

### EU LABELING AND CLASSIFICATION:

**Classification of the substance or mixture according to Regulation (EC) No1272/2008 Annex VI**

CAS# 24937-78-8 is not listed in ESIS

CAS# 69430-35-9 is not listed in ESIS

EC# 232-479-9 This substance is not classified in the Annex VI of Directive 67/548/EEC

CAS# 68441-37-2 is not listed in ESIS

CAS# 9002-88-4 is not listed in ESIS

### COMPONENT(S) DETERMINING HAZARD:

All Ingredients





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**GHS Hazard Classification(s):**

None known

**Hazard Statement(s):**

None known

**Precautionary Statement(s):**

None known

**HEALTH HAZARDS OR RISKS FROM EXPOSURE:**

**ACUTE:** This product as supplied is not expected to cause adverse health effects when used as intended. Ingestion of this product is not a likely route of entry. May cause gastrointestinal irritation if swallowed. Not expected to cause respiratory irritation.

**CHRONIC:** None known

**TARGET ORGANS:****ACUTE:** None known**CHRONIC:** None known

### 3. COMPOSITION and INFORMATION ON INGREDIENTS

Hazardous Ingredients:	CAS #	EINECS #	ICSC #	WT %	GHS CLASSIFICATION(S)
Ethylene Vinyl Copolymer	24937-78-8	Not Listed in ESIS	Not Listed	55 - 75%	Not Classified
Resin	69430-35-9	Not Listed in ESIS	Not Listed	0 - 45%	Not Classified
Resin acids and Rosin acids, esters with pentaerythritol	8050-26-8	232-479-9	Not Listed	0 - 45%	Not Classified
Hydrocarbon resin	68441-37-2	Not Listed in ESIS	Not Listed	0 - 45%	Not Classified
Polyethylene Wax	9002-88-4	Not Listed in ESIS	Not Listed	0 - 10%	Not Classified
Balance of other components. Each of the other components is present in less than 1 percent concentration (0.1% concentration for potential carcinogens, reproductive toxins, respiratory tract sensitizers, and mutagens)					

NOTE: This product has been classified in accordance with the hazard criteria of the CPR and the SDS contains all the information required by the CPR, EU Directives and the Japanese Industrial Standard *JIS Z 7250: 2000*. This material is classified as non-hazardous under OSHA regulations 29 CFR 1910.1200.

### 4. FIRST-AID MEASURES

Contaminated individuals of chemical exposure must be taken for medical attention if any adverse effect occurs. Rescuers should be taken for medical attention, if necessary. Take copy of label and MSDS to health professional with contaminated individual.

**SKIN CONTACT:** Exposure to non-molten product is not expected to cause adverse effects. Wash hands after handling. If hot molten product contacts skin, cool under running water. Do not remove solidified product. The contaminated individual should seek medical attention.

**EYE CONTACT:** Exposure to non-molten product is not expected to cause adverse effects. If hot product enters the eyes, flush with water for at least 15 minutes. Contaminated individual should seek medical attention immediately.

**INHALATION:** If breathing becomes difficult remove contaminated individual to fresh air. Seek medical attention if breathing difficulties continues.

**INGESTION:** Routine use of this product is not expected to cause any situation which could lead to ingestion. If this product is swallowed, CALL PHYSICIAN OR POISON CONTROL CENTER FOR MOST CURRENT INFORMATION.

If professional advice is not available, do not induce vomiting. Never induce vomiting or give diluents (milk or water) to someone who is unconscious, having convulsions, or unable to swallow.

**MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE:** None known.

**RECOMMENDATIONS TO PHYSICIANS:** Treat symptoms and eliminate overexposure.





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### 5. FIRE-FIGHTING MEASURES

**FLASH POINT:** >450°F (>232°C)

**AUTOIGNITION TEMPERATURE:** Not Established

**FLAMMABLE LIMITS (in air by volume, %):** Lower NA Upper NA

**FIRE EXTINGUISHING MATERIALS:** Use fire extinguishing materials appropriate for surrounding fire including water spray (for cooling), dry extinguishing media, carbon dioxide, foam. A solid stream of water may scatter molten product.

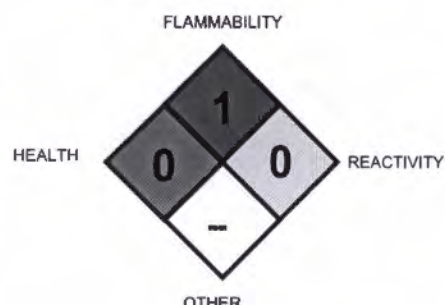
**UNUSUAL FIRE AND EXPLOSION HAZARDS:** This product has no unusual fire or explosion hazards. Do not use water on molten adhesive to avoid splattering and spreading the fire.

**Explosion Sensitivity to Mechanical Impact:** Not Sensitive

**Explosion Sensitivity to Static Discharge:** Not Sensitive

**SPECIAL FIRE-FIGHTING PROCEDURES:** Incipient fire responders should wear eye protection. Structural firefighters must wear Self-Contained Breathing Apparatus and full protective equipment. Isolate materials not yet involved in the fire and protect personnel. Move containers from fire area if this can be done without risk; otherwise, cool with carefully applied water spray. If possible, prevent runoff water from entering storm drains, bodies of water, or other environmentally sensitive areas.

#### NFPA RATING



Hazard Scale: 0 = Minimal 1 = Slight  
2 = Moderate  
3 = Serious 4 = Severe

### 6. ACCIDENTAL RELEASE MEASURES

**SPILL AND LEAK RESPONSE:** Collect and contain for salvage or disposal.

**DISPOSAL:** Dispose of in accordance with applicable Federal, State, and local procedures (see Section 13, Disposal Considerations).

### 7. HANDLING and STORAGE

**WORK PRACTICES AND HYGIENE PRACTICES:** Use good hygiene practices.

**STORAGE AND HANDLING PRACTICES:** Store in a cool dry location. Protect from physical damage.

### 8. EXPOSURE CONTROLS - PERSONAL PROTECTION

**VENTILATION AND ENGINEERING CONTROLS:** Use with adequate ventilation to ensure exposure levels are maintained below the limits provided below. Use local exhaust ventilation, and process enclosure if necessary.

#### EXPOSURE LIMITS/GUIDELINES:

Component Name	CAS#	ACGIH-TLV's	OSHA PEL's	NIOSH-TLV's	Other
Ethylene Vinyl Copolymer	24937-78-8	Not Listed	Not Listed	Not Listed	None
Resin	69430-35-9	Not Listed	Not Listed	Not Listed	None
Resin acids and Rosin acids, esters with pentaerythritol	8050-26-8	Not Listed	Not Listed	Not Listed	None
Hydrocarbon resin	68441-37-2	Not Listed	Not Listed	Not Listed	None
Polyethylene Wax	9002-88-4	Not Listed	Not Listed	Not Listed	None

Currently, International exposure limits are established for the components of this product. Please check with competent authority in each country for the most recent limits in place.

The following information on appropriate Personal Protective Equipment is provided to assist employers in complying with OSHA regulations found in 29 CFR Subpart I (beginning at 1910.132) or equivalent standard of Canada, or standards of EU member states (including EN 149 for respiratory PPE, and EN 166 for face/eye protection), and those of Japan. Please reference applicable regulations and standards for relevant details.





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**RESPIRATORY PROTECTION:** Not required for product as supplied. When thermal processing fumes are generated and ventilation is not sufficient to effectively remove them appropriate approved respiratory protection must be provided. Heated product will emit vapors and exposed workers may need to use a NIOSH approved, organic vapor canister type respirator. If necessary, use only respiratory protection authorized in the U.S. Federal OSHA Respiratory Protection Standard (29 CFR 1910.134), equivalent U.S. State standards, Canadian CSA Standard Z94.4-93, the European Standard EN149, or EU member states. Oxygen levels below 19.5% are considered IDLH by OSHA. In such atmospheres, use of a full-facepiece pressure/demand SCBA or a full facepiece, supplied air respirator with auxiliary self-contained air supply is required under U.S. Federal OSHA's Respiratory Protection Standard (1910.134-1998) or the regulations of various U.S. States, Canada, EU Member States, or those of Japan. Air-purifying respirators with dust/mist/fume filters are recommended if operations may produce mists or sprays from this product.

**EYE PROTECTION:** Not required for product as supplied. Wear chemical goggles, face shield if handling molten material. If necessary, refer to U.S. OSHA 29 CFR 1910.133, Canadian Standards, and the European Standard EN166, Australian Standards, or relevant Japanese Standards.

**HAND PROTECTION:** Not required for product as supplied. Wear thermal insulating gloves to protect from thermal burns. If necessary, refer to U.S. OSHA 29 CFR 1910.138, the European Standard DIN EN 374, the appropriate Standards of Canada, Australian Standards, or relevant Japanese Standards.

**BODY PROTECTION:** Not required for product as supplied. When thermal processing wear work clothing sufficient to prevent skin contact. If necessary, refer to appropriate Standards of Canada, or appropriate Standards of the EU, Australian Standards, or relevant Japanese Standards.

### 9. PHYSICAL and CHEMICAL PROPERTIES

**SOFTENING POINT:** 190°F (88°C)

**SPECIFIC GRAVITY @ 20°C:** 0.918 – 0.960 (water=1)

**VAPOR PRESSURE, mm Hg @ 20°C (68°F):** NA

**ODOR THRESHOLD:** No odor

**APPEARANCE, ODOR and COLOR:** This product is a solid in various colors, with no odor.

**EVAPORATION RATE (n-BuAc=1):** Not Applicable

**SOLUBILITY IN WATER:** Non soluble

**pH:** NA

### 10. STABILITY and REACTIVITY

**STABILITY:** Stable.

**DECOMPOSITION PRODUCTS:** Thermal degradation produces carbon monoxide, carbon dioxide and/or low molecular weight hydrocarbons.

**MATERIALS WITH WHICH SUBSTANCE IS INCOMPATIBLE:** The product may react to strong acids, bases and oxidizing agents.

**POSSIBILITY OF HAZARDOUS REACTIONS:** Will not occur.

**CONDITIONS TO AVOID:** Avoid excessive overheating. Do not add water or other volatile material to molten adhesive.

### 11. TOXICOLOGICAL INFORMATION

#### **TOXICITY DATA:**

No LD50 Data Available for this product

**SUSPECTED CANCER AGENT:** The components of this product are not listed by agencies tracking the carcinogenic potential of chemical compounds as follows:

#### **Carcinogenity**

NTP Regulated No

IARC Regulated No

OSHA Regulated No

**IRITANCY OF PRODUCT:** This product can cause skin and eye irritation.

**SENSITIZATION TO THE PRODUCT:** These products are not known to cause human skin or respiratory sensitization.

**REPRODUCTIVE TOXICITY INFORMATION:** Listed below is information concerning the effects of this product and its components on the human reproductive system.

**Mutagenicity:** The components of this product are not reported to produce mutagenic effects in humans.

**Embryotoxicity:** The components of this product are not reported to produce embryotoxic effects in humans.

**Teratogenicity:** The components of this product are not reported to produce teratogenicity effects in humans.





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Reproductive Toxicity: The components of this product are not reported to produce reproductive effects in humans.

### 12. ECOLOGICAL INFORMATION

ALL WORK PRACTICES MUST BE AIMED AT ELIMINATING ENVIRONMENTAL CONTAMINATION.

MOBILITY IN SOIL: These products have not been tested for mobility in soil.

PERSISTENCE/DEGRADABILITY: These products have not been tested for persistence or biodegradability. The components may slowly degrade in the environment and form a variety of organic and inorganic materials; however, no specific information is known.

ENVIRONMENTAL STABILITY: These products have not been tested for environmental stability.

BIOACCUMULATION/ACCUMULATION: These products have not been tested for bio-accumulation potential.

### 13. DISPOSAL CONSIDERATIONS

PREPARING WASTES FOR DISPOSAL: Waste disposal must be in accordance with appropriate U.S. Federal, State, and local regulations, those of Canada, Australia, EU Member States and Japan.

### 14. TRANSPORTATION INFORMATION

US DOT, IATA, IMO, ADR:

U.S. DEPARTMENT OF TRANSPORTATION (DOT) SHIPPING REGULATIONS: This product is not classified as dangerous goods, per U.S. DOT regulations, under 49 CFR 172.101. Non-Regulated

TRANSPORT CANADA, TRANSPORTATION OF DANGEROUS GOODS REGULATIONS: These products are not classified as Dangerous Goods, per regulations of Transport Canada.

INTERNATIONAL AIR TRANSPORT ASSOCIATION (IATA): These products are not classified as Dangerous Goods, by rules of IATA:

INTERNATIONAL MARITIME ORGANIZATION (IMO) DESIGNATION: These products are not classified as Dangerous Goods by the International Maritime Organization.

EUROPEAN AGREEMENT CONCERNING THE INTERNATIONAL CARRIAGE OF DANGEROUS GOODS BY ROAD (ADR): These products are not classified by the United Nations Economic Commission for Europe to be dangerous goods

### 15. REGULATORY INFORMATION

UNITED STATES REGULATIONS:

U.S. SARA REPORTING REQUIREMENTS: The components of these products are not subject to the reporting requirements of Sections 302, 304, and 313 of Title III of the Superfund Amendments and Reauthorization Act.

U.S. SARA THRESHOLD PLANNING QUANTITY: There are no specific Threshold Planning Quantities for any component of these products. The default Federal MSDS submission and inventory requirement filing threshold of 10,000 lb (4,540 kg) therefore applies, per 40 CFR 370.20.

U.S. CERCLA REPORTABLE QUANTITY (RQ): None.

U.S. TSCA INVENTORY STATUS: The components of these products are listed in the TSCA Inventory.

CALIFORNIA SAFE DRINKING WATER AND TOXIC ENFORCEMENT ACT (PROPOSITION 65): This product does not contain any component above the 0.1% level which is listed as a California Proposition 65 chemical.

CANADIAN REGULATIONS:

CANADIAN DSL/NDL INVENTORY STATUS: The components of this product are on the DSL Inventory, or are exempted from listing.

CANADIAN ENVIRONMENTAL PROTECTION ACT (CEPA) PRIORITIES SUBSTANCES LISTS: No component of this product is on the CEPA First Priorities Substance Lists.

CANADIAN WHMIS CLASSIFICATION and SYMBOLS: Complies with WHMIS 2015

EUROPEAN ECONOMIC COMMUNITY INFORMATION:

SEE SECTION 2 FOR DETAILS





## SAFETY DATA SHEET

### AUSTRALIAN INFORMATION FOR PRODUCT:

**AUSTRALIAN INVENTORY OF CHEMICAL SUBSTANCES (AICS) STATUS:** The components of this product are listed on the AICS or are exempt.

**STANDARD FOR THE UNIFORM SCHEDULING OF DRUGS AND POISONS:** Not applicable.

### JAPANESE INFORMATION FOR PRODUCT:

**JAPANESE MINISTER OF INTERNATIONAL TRADE AND INDUSTRY (MITI) STATUS:** The components of this product are not listed as Class I Specified Chemical Substances, Class II Specified Chemical Substances, or Designated Chemical Substances by the Japanese MITI.

### INTERNATIONAL CHEMICAL INVENTORIES:

Listing of the components on individual country Chemical Inventories is as follows:

Asia-Pac: Listed or exempt

Australian Inventory of Chemical Substances (AICS): Listed or exempt

Korean Existing Chemicals List (ECL): Listed or exempt

Japanese Existing National Inventory of Chemical Substances (ENCS): Listed or exempt

Philippines Inventory of Chemicals and Chemical Substances (PICCS): Listed or exempt

Swiss Giftlist List of Toxic Substances: Listed or exempt

U.S. TSCA: Listed or exempt

## 16. OTHER INFORMATION

**PREPARED BY:** Paul Eigbrett

GHS MSDS Compliance PLUS

**DATE OF PRINTING:** July 13, 2015

Although the information set forth herein is presented in good faith and believed to be correct as of the date of issuance, it has been furnished by our suppliers; consequently, FPC Corporation makes no representations or warranties, express or implied, with respect to information herein presented. The information set forth herein is supplied upon the condition that the persons receiving same will make their own determination as to suitability for their purposes prior to use and relates only to the specific product described and not to such product in combination with any other product. In no event will International Cellulose Corporation be responsible for damages of any nature resulting from the use of or reliance upon this information.

**End of SDS Sheet**





THE INTERNATIONAL GROUP, INC.

# SAFETY DATA SHEET

## 1. Identification

**Product identifier** 5000 Series products (MICROSERE)

**Other means of identification**

**SDS number** 5000 Series

**Recommended use** Various end uses e.g. pharmaceutical excipient, personal care/cosmetics, food contact coatings, additive for wax blends, use in adhesives etc.

**Recommended restrictions** None known.

**Manufacturer/Importer/Supplier/Distributor information**

**Company Name** The International Group Inc.

**Address** 50 Salome Dr.  
Toronto  
ON, M1S2A8, CA

**Telephone** 001-(416)-293-4151

**E-mail** -

**Contact person** -

**Emergency phone number** 001-(416)-293-4151  
001-(800)-561-3509  
CHEMTREC (North America) 001-(800)-424-9300

## 2. Hazard(s) identification

**Physical hazards** Not classified.

**Health hazards** Not classified.

**OSHA defined hazards** Not classified.

This product does not meet the criteria for classification according to OSHA Hazard Communication Standard (OSHA GHS).

### Label elements

**Hazard symbol** None.

**Signal word** None.

**Hazard statement** The product does not meet the criteria for classification.

### Precautionary statement

**Prevention** Observe good industrial hygiene practices.

**Response** Wash hands after handling.

**Storage** Store away from incompatible materials.

**Disposal** Dispose of waste and residues in accordance with local authority requirements.

**Hazard(s) not otherwise classified (HNOC)** None known.

## 3. Composition/information on ingredients

### Substances

Chemical name	Common name and synonyms	CAS number	%
Microcrystalline wax		63231-60-7	100

**Composition comments** All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.



#### 4. First-aid measures

Inhalation	Solid: No specific first aid measures noted. If fumes from heated product are inhaled: Move to fresh air. Call a POISON CENTER or doctor/physician if you feel unwell.
Skin contact	Solid: No specific first aid measures noted. If burned by contact with hot material, cool molten material adhering to skin as quickly as possible with water, and see a physician for removal of adhering material and treatment of burn.
Eye contact	Solid: No specific first aid measures noted. Exposure to fumes, vapors or smoke of over heated product can result in irritation of eyes. Direct contact of molten material will cause injury and burns. When handling of molten product eye shield must be worn at all times. If a contact lens is present, DO NOT delay irrigation or attempt to remove the lens. Should an accident occur, flush eyes with generous amounts of water for at least 15 minutes. Administer prompt first aid measures. Get medical attention if irritation develops and persists.
Ingestion	Solid: No specific first aid measures noted. Not acutely toxic by ingestion. If material is ingested, do not induce vomiting. Contact with hot product may cause severe burns. Get medical attention immediately.
Most important symptoms/effects, acute and delayed	Eye and skin contact: When heated, contact with molten product can cause injury and burns.
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically.
General information	If you feel unwell, seek medical advice (show the label where possible). Show this safety data sheet to the doctor in attendance.

#### 5. Fire-fighting measures

Suitable extinguishing media	Water fog. Foam. Dry chemical powder. Carbon dioxide (CO <sub>2</sub> ).
Unsuitable extinguishing media	Do not use water on molten metal: Explosion hazard could result.
Specific hazards arising from the chemical	By heating and fire, irritating vapors/gases may be formed. During fire, gases hazardous to health may be formed.
Special protective equipment and precautions for firefighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Fire fighting equipment/instructions	In case of fire and/or explosion do not breathe fumes. Cool containers exposed to heat with water spray and remove container, if no risk is involved. Do not direct water at source of leak or safety devices as icing may occur. Use water spray to cool unopened containers. 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.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials. Move containers from fire area if you can do so without risk. Cool containers exposed to flames with water until well after the fire is out.
General fire hazards	No unusual fire or explosion hazards noted.

#### 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Do not breathe mist or vapor. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. For personal protection, see section 8 of the SDS.
Methods and materials for containment and cleaning up	<p>Handle as a thermoplastic. With molten spills, allow the material to solidify and cool. Keep material out of sewers and watercourses by diking or impounding. Recover and place into appropriate containers for recycling or disposal, according to prevailing local, state and federal laws.</p> <p>Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Allow material to solidify, and scrape up. Following product recovery, flush area with water.</p> <p>Small Spills: Where possible allow molten material to solidify naturally.</p>
Environmental precautions	<p>Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.</p> <p>Avoid release to the environment. Contact local authorities in case of spillage to drain/aquatic environment. Prevent further leakage or spillage if safe to do so. Do not contaminate water.</p>



## 7. Handling and storage

### Precautions for safe handling

When kept in molten state, inert gas blanketing may be used to avoid material degradation. As a solid, avoid contamination by keeping in closed containers. Do not handle until all safety precautions have been read and understood. Heat only in areas with appropriate exhaust ventilation. Do not breathe fume/mist/vapors. Avoid contact with molten material. When using, do not eat, drink or smoke. Observe good industrial hygiene practices. Do not empty into drains. Avoid release to the environment. Wash contaminated clothing before reuse. The material is a solid at room temperature exhibiting elevated temperature softening characteristics. Above its softening point, the material liquefies and flows more readily as the temperature increases. The material may be used as a hot liquid for application purposes and requires caution in handling.

### Conditions for safe storage, including any incompatibilities

Keep away from heat, sparks and open flame. Store in a cool, dry place out of direct sunlight. Store in original tightly closed container. Store in a well-ventilated place. Keep in an area equipped with sprinklers. Store away from incompatible materials (see Section 10 of the SDS). When kept in molten state, inert gas blanketing may be used to avoid material degradation. As a solid, avoid contamination by keeping in closed containers.

## 8. Exposure controls/personal protection

### Occupational exposure limits

No exposure limits noted for ingredient(s).

### Biological limit values

No biological exposure limits noted for the ingredient(s).

### Appropriate engineering controls

Ensure adequate ventilation, especially in confined areas. Eye wash facilities and emergency shower must be available when handling this product.

### Individual protection measures, such as personal protective equipment

#### Eye/face protection

Wear approved safety goggles. Wear a face shield when working with molten material.

#### Skin protection

##### Hand protection

Wear appropriate chemical resistant gloves. Suitable gloves can be recommended by the glove supplier.

##### Other

The material may be utilized in molten form. Proper protective splash resistant clothing, thermal gloves, splash resistant shoes, and eye shields must be worn to prevent injury. Use molten material in well ventilated areas. When working in confined areas, use of appropriate respiratory gear is recommended.

#### Respiratory protection

If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. Use a positive-pressure air-supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air-purifying respirators may not provide adequate protection.

#### Thermal hazards

Wear appropriate thermal protective clothing, when necessary.

### General hygiene considerations

When using, do not eat, drink or smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

## 9. Physical and chemical properties

### Appearance

#### Physical state

Solid.

#### Form

Soft solid.

#### Color

White to dark amber.

### Odor

None to slight petroleum odor.

### Odor threshold

No data available.

### pH

Not applicable.

### Melting point/freezing point

140 - 203 °F (60 - 95 °C)

### Initial boiling point and boiling range

> 572 °F (> 300 °C)

### Flash point

> 392.0 °F (> 200.0 °C) ASTM D-92

### Evaporation rate

< 0.01 (Butyl acetate = 1)

### Flammability (solid, gas)

Will support a flame above flash point.

### Upper/lower flammability or explosive limits

#### Flammability limit - lower (%)

No data available.



Flammability limit - upper (%)	No data available.
Explosive limit - lower (%)	0.9 %
Explosive limit - upper (%)	7 %
Vapor pressure	< 0.01 mm Hg (77 °F/25 °C)
Vapor density	> 5 (Air = 1)
Relative density	0.91 - 0.94 (77 °F/25 °C)
Solubility(ies)	
Solubility (water)	< 0.1 % (68 °F/20 °C)
Auto-ignition temperature	No data available.
Decomposition temperature	No data available.
Viscosity	No data available.
Other information	
Partition coefficient (oil/water)	< 0.01
Percent volatile	Negligible.

## 10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use. Hazardous polymerization does not occur.
Conditions to avoid	Avoid temperatures exceeding the flash point. Contact with incompatible materials.
Incompatible materials	Strong oxidizing agents.
Hazardous decomposition products	Decomposition of this product can generate carbon dioxide, carbon monoxide and other products such as aldehydes and ketones depending on conditions of oxidation.

## 11. Toxicological information

### Information on likely routes of exposure

Inhalation	Not relevant at normal room temperatures. When heated, irritating vapors may be formed. Wax fumes have been reported to be irritating to the respiratory tract, especially to sensitized persons.
Skin contact	Health injuries are not known or expected under normal use. Molten material will produce thermal burns.
Eye contact	Health injuries are not known or expected under normal use. Molten material will produce thermal burns.
Ingestion	Health injuries are not known or expected under normal use. Contact with hot material can cause thermal burns which may result in permanent damage.

Symptoms related to the physical, chemical and toxicological characteristics	Eye and skin contact: Contact with molten material may cause thermal burns.
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### Information on toxicological effects

Acute toxicity	Not expected to be acutely toxic.
Skin corrosion/irritation	Thermal burn hazard - contact with hot material may cause thermal burns.
Serious eye damage/eye irritation	Not classified. Direct contact of molten product to the eyes will cause thermal burns and eye injury.
Respiratory or skin sensitization	
Respiratory sensitization	Not classified.
Skin sensitization	This product is not expected to cause skin sensitization.
Germ cell mutagenicity	Not classified.
Carcinogenicity	Not expected to be hazardous by OSHA criteria.
OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)	
Not listed.	
Reproductive toxicity	Not classified.



<b>Specific target organ toxicity - single exposure</b>	Not classified.
<b>Specific target organ toxicity - repeated exposure</b>	Not classified.
<b>Aspiration hazard</b>	Solid product: Not likely, due to the form of the product. Aspiration of large amounts of liquid material is reported to cause lipid pneumonia.
<b>Chronic effects</b>	Not expected to be hazardous by OSHA criteria. Exposure to vapors, fumes, or smoke from molten material handled in confined areas can produce irritation of respiratory tracts, and possible physical discomfort to sensitive individuals. In rats, chronic ingestion of paraffins has shown accumulation in target organs (liver, spleen) with associated nonspecific immune response.
<b>Further information</b>	None.

## 12. Ecological information

<b>Ecotoxicity</b>	The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.
<b>Persistence and degradability</b>	No data is available on the degradability of this product.
<b>Bioaccumulative potential</b>	No data available.
<b>Mobility in soil</b>	No data available.
<b>Other adverse effects</b>	No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

## 13. Disposal considerations

<b>Disposal instructions</b>	Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose of contents/container in accordance with local/regional/national/international regulations.
<b>Local disposal regulations</b>	Dispose in accordance with all applicable regulations.
<b>Hazardous waste code</b>	The waste code should be assigned in discussion between the user, the producer and the waste disposal company.
<b>Waste from residues / unused products</b>	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
<b>Contaminated packaging</b>	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

<b>DOT</b>	Not regulated as dangerous goods.
<b>IATA</b>	Not regulated as dangerous goods.
<b>IMDG</b>	Not regulated as dangerous goods.
<b>Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code</b>	Not applicable.
<b>General information</b>	This product is not regulated as dangerous goods for solid and molten product shipped under 212 °F/100 °C. Hot molten product shipped over 212 °F/100 °C requires a class 9 "HOT" with statement: Elevated temperature material, liquid, N.O.S. 9, UN3257, III (WAX).

## 15. Regulatory information

<b>US federal regulations</b>	This product is not known to be a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200. All components are on the U.S. EPA TSCA Inventory List.
<b>TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)</b>	Not regulated.
<b>OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)</b>	Not listed.
<b>CERCLA Hazardous Substance List (40 CFR 302.4)</b>	Not listed.

**Superfund Amendments and Reauthorization Act of 1986 (SARA)**

**Hazard categories**                      Immediate Hazard - No  
Delayed Hazard - No  
Fire Hazard - No  
Pressure Hazard - No  
Reactivity Hazard - No

**SARA 302 Extremely hazardous substance**

Not listed.

**SARA 311/312 Hazardous chemical**                      No

**SARA 313 (TRI reporting)**  
Not regulated.

**Other federal regulations**

**Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**

Not regulated.

**Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)**

Not regulated.

**Safe Drinking Water Act (SDWA)**                      Not regulated.

**US state regulations**

**US. Massachusetts RTK - Substance List**

Not regulated.

**US. New Jersey Worker and Community Right-to-Know Act**

Not listed.

**US. Pennsylvania Worker and Community Right-to-Know Law**

Not listed.

**US. Rhode Island RTK**

Not regulated.

**US. California Proposition 65**

Not Listed.

**International Inventories**

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

\*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s).

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

**16. Other information, including date of preparation or last revision**

**Issue date**                                      11-March-2015  
**Revision date**                                20-April-2015  
**Version #**                                        02  
**HMIS® ratings**                                Health: 0  
Flammability: 1  
Physical hazard: 0



## List of abbreviations

LD50: Lethal Dose, 50%.  
LC50: Lethal Concentration, 50%.  
TWA: Time weighted average.  
STEL: Short term exposure limit.  
DOT: Department of Transportation.  
IATA: International Air Transport Association.  
IMDG: International Maritime Dangerous Goods.  
OSHA: Occupational Safety and Health Administration.  
CAS: Chemical Abstracts Service.  
WHMIS: Workplace Hazardous Materials Information System.  
HMIS: Hazardous Materials Identification System.  
NFPA: National Fire Protection Association.  
ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.  
ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways.  
RID: Regulations concerning the International Carriage of Dangerous Goods by Rail.

## References

ACGIH Documentation of the Threshold Limit Values and Biological Exposure Indices  
IARC Monographs. Overall Evaluation of Carcinogenicity  
HSDB® - Hazardous Substances Data Bank  
Registry of Toxic Effects of Chemical Substances (RTECS)

## Disclaimer

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THE INTERNATIONAL GROUP, INC.

SDS 5000 SERIES AND RELATED PRODUCTS

CAS #: 63231-60-7 >99%

PRODUCT CODE:

5701A	5749A	5866A						
5701B	5749B	5871A						
5701F	5749C	5871F						
5702A	5749D	5872A						
5702B	5749E	5881A						
5703A	5760A	5884A						
5704A	5760U	5887A						
5705A	5765A	5888A						
5706A	5788A	5888B						
5707A	5788B	5889A						
5708A	5788F	5890A						
5709A	5788U	5896A						
5713A	5798A	5897A						
5714A	5799A	5906A						
5714B	5799B	5906B						
5714C	5799C	5909A						
5714D	5801A	5909B						
5714T	5802A	5909F						
5714U	5803A	5910A						
5715A	5805A	5910B						
5715B	5806A	5913A						
5715C	5806C	5913F						
5718A	5812A	5914A						
5720A	5816A	5981A						
5721A	5816B	5981W						
5723A	5818A	5990A						
5725A	5818B	5999A						
5727A	5818D	4820B						
5729A	5818E	4843A						
5730A	5818F							
5731A	5818U							
5732A	5819A							
5733A	5819U							
5735A	5821A							
5737A	5821F							
5738A	5826A							
5739A	5827A							
5740A	5829A							
5741A	5850A							





# THE INTERNATIONAL GROUP, INC.

## MATERIAL SAFETY DATA SHEET

### SECTION 1 -- PRODUCT AND COMPANY IDENTIFICATION

Material 5000 SERIES PRODUCTS (MICROSERE®, TACWAX®) (See page 6 for a complete listing of 5000 series product numbers)			Revision date 3-Jan-08
Previous revision date 24-Jul-07	File designation Series\5000	Material use Various	
Manufacture's Name and issuing location THE INTERNATIONAL GROUP, INC.  50 SALOME DRIVE TORONTO, ONTARIO, CANADA M1S 2A8		<b>EMERGENCY PHONE NUMBER</b>  <b>416 - 293 - 4151 day &amp; night</b>  Issuer's phone number 416 - 293 - 4151	

#### Manufacturing sites

50 Salome Dr. Toronto, ON Canada M1S 2A8	7106 Highway 146 North Baytown, TX 77520	2875 North Main St. Oshkosh, WI 54901	1100 East Main St. Titusville, PA 16354	45 Route 446 Smethport PA 16749	1140 Canal Boulevard Richmond, CA 94804
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### SECTION 2 -- COMPOSITION / INFORMATION ON INGREDIENTS

No hazardous ingredients as defined by the Canadian Hazardous Products Act (BILL C70) or by OSHA 29 CFR 1910.1200.

Chemical name Not Applicable	Chemical family Petroleum Hydrocarbon	CAS No. See page 6
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### SECTION 3 -- HAZARDS IDENTIFICATION

#### Emergency Overview

The material is a solid at room temperature exhibiting elevated temperature softening characteristics. Above its softening point, the material liquefies and flows more readily as the temperature increases. The material is used as a hot liquid for application purposes and requires caution in handling. At elevated temperatures well above the softening point and in contact with air, the generation of hydrocarbon vapors including possible oxidized products may be expected.

SKIN CONTACT	Contact with molten material can result in severe burns.
EYE CONTACT	Direct contact of molten product to the eyes will cause thermal burns and eye injury.
INHALATION	Breathing fumes in confined areas can cause respiratory discomfort and possible irritation.

#### Potential Health Effects

(HMIS Rating)

Fire Hazard: 1	Health Hazard: 0	Reactivity: 0	Personal Protection: See Section 8
0 = MINIMAL 1 = SLIGHT HAZARD 2 = MODERATE HAZARD 3 = SERIOUS HAZARD 4 = SEVERE HAZARD			





# THE INTERNATIONAL GROUP, INC.

## MATERIAL SAFETY DATA SHEET

Material: 5000 SERIES PRODUCTS (MICROSERE®, TACWAX®)

Version:2

### SECTION 3 -- HAZARDS IDENTIFICATION (CONTINUED)

EYE CONTACT	Exposure to fumes, vapors or smoke from thermally degraded product can cause irritation to eyes.
INHALATION	Exposure to vapors, fumes, or smoke from molten material handled in confined areas can produce irritation of respiratory tracts, and possible physical discomfort to sensitive individuals.
INGESTION	This material is essentially inert and non-toxic. Regardless of this the material should be handled with care and not be ingested or put in mouth.
SKIN	Skin contact with molten material can cause severe burns.

### SECTION 4 -- FIRST AID MEASURES

EYES	Exposure to fumes, vapors or smoke of over heated product can result in irritation to eyes. Direct contact of the molten material will cause eye injury and burns. When handling molten material eye shields must be worn at all times. Should an accident occur, flush eyes with generous amounts of water for at least 15 minutes. Administer prompt first aid measures. <b>Call a physician to attend to the injury.</b>
SKIN	Exposure to fumes, vapors or smoke of thermally degraded product can result in irritation to skin. Direct contact of the molten material will cause injury and burns. For burns apply running water injured area for 15 minutes. Do not attempt to remove any material bonded to skin. <b>Call a physician to attend to the injury.</b>
INHALATION	Remove individual to a well ventilated area for fresh air and <b>call a physician if respiratory symptoms warrant medical attention.</b>
INGESTION	Material is not acutely toxic by ingestion. <b>If material is ingested, do not induce vomiting. Call a physician.</b>

### SECTION 5 -- FIRE FIGHTING MEASURES

Flammability	If yes, under which conditions?		
YES [ X ]    NO [   ]	Will support a flame above flash point.		
Means of extinction			
Use water fog, foam, dry chemical or CO <sub>2</sub> extinguisher. Do not use direct water stream.			
Special procedures			
Use water to keep containers cool.			
FIRE and EXPLOSION DATA			
Flash point (ASTM D92)	Upper explosion limit (% by volume)		Lower explosion limit (% by volume)
> 200°C	7.0%		0.9%
Auto ignition temperature	TDG flammability classification		Hazardous combustion products
Not Available	Not Dangerous		CO <sub>2</sub> , CO (See Section 10)
Sensitivity to impact	Rate of burning	Explosive power	Sensitivity to static discharge
Not Applicable	Not Applicable	Not Applicable	Not Applicable





# THE INTERNATIONAL GROUP, INC.

## MATERIAL SAFETY DATA SHEET

Material: 5000 SERIES PRODUCTS (MICROSERE®, TACWAX®)

Version:2

### SECTION 6 -- ACCIDENTAL RELEASE MEASURES

#### SPILLS OR LEAKS

Handle as a thermoplastic. With molten spills, allow the material to solidify and cool. Keep material out of sewers and watercourses by diking or impounding. Recover and place into appropriate containers for recycling or disposal, according to prevailing local, state and federal laws.

### SECTION 7 -- HANDLING AND STORAGE

When kept in molten state, inert gas blanketing may be used to avoid material degradation. As a solid, avoid contamination by keeping in closed containers.

### SECTION 8 -- EXPOSURE CONTROLS / PERSONAL PROTECTION

This material will be utilized in molten form. Proper protective splash resistant clothing, thermal gloves, splash resistant shoes, and eye shields must be worn to prevent injury. Use molten material in well ventilated areas. When working in confined areas, use of appropriate respiratory gear is recommended.

### SECTION 9 -- PHYSICAL AND CHEMICAL PROPERTIES

Appearance White to dark amber	Odor None - intermediate petroleum odor	Physical state Solid @ 25°C	pH Not Applicable
Vapor pressure (mm Hg) < 0.01 @ 25°C	Vapor density (air = 1) > 5	Boiling point (IBP) > 300°C	Solubility in water (20°C) < 0.1%
Evaporation rate (Butyl acetate =1) < 0.01	Freezing point Not Applicable	Volatiles (By volume) < 1.0%	Specific gravity (25°C) 0.91-0.94
Coeff. water / oil distribution < 0.01	Melt point 60-95°C	Molecular weight Not Defined	Odor threshold (PPM) Not Available

### SECTION 10 -- STABILITY AND REACTIVITY

Chemical stability YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	If no, which conditions?
Compatibility with other substances YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	If NO, which ones? Strong oxidizing agents, eg., peroxides, chlorine
Reactivity, and under what conditions Stable	
Hazardous decomposition products Carbon dioxide, carbon monoxide and other products such as aldehydes and ketones depending on conditions of oxidation.	

### SECTION 11 -- TOXICOLOGICAL INFORMATION

Carcinogenicity Classification		Route of Entry	
IARC : Not listed	ACGIH: Not listed	Skin contact <input checked="" type="checkbox"/>	Inhalation acute <input checked="" type="checkbox"/>
OSHA: Not listed		Skin absorption <input type="checkbox"/>	Inhalation chronic <input checked="" type="checkbox"/>
NTP : Not listed		Eye contact <input type="checkbox"/>	Ingestion <input type="checkbox"/>
Effects of acute exposure to material Wax fumes have been reported to be irritating to the respiratory tract, especially to sensitized persons. Molten product could cause thermal burns on contact with the skin.			





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## MATERIAL SAFETY DATA SHEET

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Effects of chronic exposure to material

In rats, chronic ingestion has shown accumulation in target organs (liver, spleen) with associated nonspecific immune response.

LD <sub>50</sub> of material: Specify species & route Not Available	LC <sub>50</sub> of material: Specify species Not Available	Exposure limit of material TLV/TWA 2 mg/m <sup>3</sup> for paraffin wax fume (A.C.G.I.H)	Irritancy of material TLV set to prevent irritancy
Sensitizing capability of material Not known	Carcinogenicity / Mutagenicity of material Not carcinogenic by studies to date. Ames negative.	Reproductive effects of material None known.	Synergistic materials None known.

### SECTION 12 -- ECOLOGICAL INFORMATION

Material is not considered harmful to the environment. Nevertheless, material from spills and other generated waste must be disposed of properly in conformance with all local, state and federal laws.

### SECTION 13 -- DISPOSAL CONSIDERATIONS

This material is not a RCRA hazardous waste material. Follow local regulatory laws for proper disposal.

### SECTION 14 -- TRANSPORT INFORMATION

DOT proper shipping name	Not regulated
DOT hazardous classification	Not Applicable
DOT Haz. Mat table 172.101	Not listed
DOT appendix to sec. 172.101	Not listed
DOT labels required	None
DOT placards required	None for solid product. None for molten product shipped under 212°F/100°C. Hot molten product shipped over 212°F/100°C requires a class 9 "HOT" placard Bill of lading must carry the statement: Elevated temperature material, liquid, N.O.S. 9, UN3257, III (WAX).
TDG classification	Not controlled under TDG (Canada).

### SECTION 15 -- REGULATORY INFORMATION

FDA status	See product's technical information sheet.
CERCLA reportable quantity	This material is not reportable under 40 CFR Part 302.4.
OSHA hazardous chemicals	None according to 29 CFR 1910.1200.
RCRA	This material is not a RCRA hazardous waste.
SARA status	Sections 311 and 312: Not Applicable Section 313: None
TSCA status	This product, or its ingredients as a mixture, appears on the toxic substances control act inventory.
WHMIS status	This is not a controlled material as defined by the Canadian Hazardous Products Act (Bill C70).
California Proposition 65 list	Carcinogens: None, Adverse reproductive effects: None
Massachusetts Substance list	None





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New Jersey Haz. Substance list	None
Pennsylvania Haz. Substance list	None
Canadian DSL status	Listed
CONEG	In compliance

### SECTION 16 -- OTHER

Source used:

A.C.G.I.H. (Documentation of threshold values), RTECS, IARC Monographs, Oxford Toxicology Forum, Special Meeting on Hydrocarbons.

Prepared by

I. Davie

Signature

Ian Davie

### Disclaimer

This material safety data sheet is offered for your information only. We believe the statements, technical information and recommendations contained here in are reliable, but are given without warranty or guarantee of any kind, expressed or implied. THE INTERNATIONAL GROUP, INC. assumes no responsibility for any loss, damage or expense, direct or consequential, arising from the use of our material. It is the responsibility of the user to determine the suitability and completeness of such information for the required use or application. We do not assume any legal responsibility for nor do we give permission, inducement or recommendation to practice any patented invention without a license. Further, it is the user's obligation to utilize this material in full compliance with all health, safety and environmental regulations.



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Material: 5000 SERIES PRODUCTS (MICROSERE®, TACWAX®)

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PRODUCT NUMBER	CAS NUMBER	PRODUCT NUMBER	CAS NUMBER
5701A	63231-60-7	5802A	63231-60-7
5702A	63231-60-7	5803A	63231-60-7
5702B	63231-60-7	5803C	-----*
5703A	63231-60-7	5805A	63231-60-7
5704A	63231-60-7	5806A	63231-60-7
5705A	63231-60-7	5812A	63231-60-7
5706A	63231-60-7	5816A	63231-60-7
5707A	63231-60-7	5816B	63231-60-7
5708A	63231-60-7	5818A	63231-60-7
5709A	63231-60-7	5818B	63231-60-7
5713A	63231-60-7	5818D	63231-60-7
5714A	63231-60-7	5818E	63231-60-7
5714B	63231-60-7	5818F	63231-60-7
5714T	63231-60-7	5818U	63231-60-7
5714U	63231-60-7	5819A	63231-60-7
5715A	63231-60-7	5821A	63231-60-7
5718A	63231-60-7	5821F	63231-60-7
5720A	63231-60-7	5826A	63231-60-7
5721A	63231-60-7	5866A	63231-60-7
5723A	63231-60-7	5871A	63231-60-7
5724A	-----*	5871F	63231-60-7
5727A	63231-60-7	5872A	63231-60-7
5728A	-----*	5881A	63231-60-7
5733A	63231-60-7	5884A	63231-60-7
5735A	63231-60-7	5887A	63231-60-7
5737A	63231-60-7	5888A	63231-60-7
5748A	-----*	5888B	63231-60-7
5749A	63231-60-7	5889A	63231-60-7
5749B	63231-60-7	5890A	63231-60-7
5749C	63231-60-7	5896A	63231-60-7
5749D	63231-60-7	5897A	63231-60-7
5749E	63231-60-7	5901A	-----*
5760A	63231-60-7	5905A	-----*
5760U	63231-60-7	5906A	63231-60-7
5765A	63231-60-7	5909A	63231-60-7
5766A	-----*	5909F	63231-60-7
5767A	-----*	5910A	63231-60-7
5788A	63231-60-7	5913A	63231-60-7
5788B	63231-60-7	5913F	63231-60-7
5788F	63231-60-7	5914A	63231-60-7
5788U	63231-60-7	5981A	63231-60-7
5790A	-----*	5990A	63231-60-7
5790C	-----*	5992A	-----*
5792A	-----*	5999A	63231-60-7
5798A	63231-60-7		
5799A	63231-60-7		
5799B	63231-60-7		
5799C	63231-60-7		
5801A	63231-60-7		

\*There is no CAS registry  
number for this product.