



THE INTERNATIONAL GROUP, INC.

MATERIAL SAFETY DATA SHEET

SECTION 1 -- PRODUCT AND COMPANY IDENTIFICATION

Material 8100 SERIES PRODUCTS (MICROBOND®) (See page 6 for a complete listing of 8100 series product numbers)		Revision date 31-May-10			
Previous revision date 5-May-08	File designation Series\8100	Material use Various			
Manufacturer's Name and issuing location THE INTERNATIONAL GROUP, INC. 50 SALOME DRIVE TORONTO, ONTARIO, CANADA M1S 2A8		EMERGENCY PHONE NUMBER 416 - 293 - 4151 day & night 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

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 Not Applicable	CAS No. Not Applicable
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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



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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. Call a physician to attend to the injury.
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. Call a physician to attend to the injury.
INHALATION	Remove individual to a well ventilated area for fresh air and call a physician if respiratory symptoms warrant medical attention.
INGESTION	Material is not acutely toxic by ingestion. If material is ingested, do not induce vomiting. Call a physician.

SECTION 5 -- FIRE FIGHTING MEASURES

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



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Sensitivity to impact Not Applicable	Rate of burning Not Applicable	Explosive power Not Applicable	Sensitivity to static discharge Not Applicable
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) 0.90-0.95
Coef. water / oil distribution < 0.01	Melt point 46-125°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"/>



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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.

Effects of chronic exposure to material

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

LD₅₀ of material: Specify species & route

Not Available

LC₅₀ of material: Specify species

Not Available

Exposure limit of material

TLV/TWA 2 mg/m³ 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



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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
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, Supplier Information.

Prepared by
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Signature
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Disclaimer

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**PRODUCT
NUMBER**

8101A
8102A
8103A
8104A
8105A
8106A
8108A
8110A
8116A
8121A
8128A
8142A
8157A
8159A
8180A
8183A
8191A
8197A