



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 23-Apr-08 |
| Previous revision date 21-Apr-08 | | 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 | | | 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 Petroleum Hydrocarbon | | CAS No. See page 6 |
|---------------------------------|--|--|--|-----------------------|

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 [X] NO [] | 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) | |
| Sensitivity to impact Not Applicable | Rate of burning Not Applicable | Explosive power Not Applicable | Sensitivity to static discharge Not Applicable |



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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 [X] NO [] | If no, which conditions? |
| Compatibility with other substances YES [] NO [X] | 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 [X] | Inhalation acute [X] |
| OSHA: Not listed | | Skin absorption [] | Inhalation chronic [X] |
| NTP : Not listed | | Eye contact [] | Ingestion [] |

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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Effects of chronic exposure to material

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

| | | | |
|--|---|---|---|
| LD ₅₀ of material: Specify species & route Not Available | LC ₅₀ of material: Specify species Not Available | Exposure limit of material TLV/TWA 2 mg/m ³ 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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| <u>PRODUCT NUMBER</u> | <u>CAS NUMBER</u> | <u>PRODUCT NUMBER</u> | <u>CAS NUMBER</u> | | |
|-----------------------|-------------------|-----------------------|-------------------|-------|------------|
| 5701A | 63231-60-7 | 5799B | 63231-60-7 | 5999A | 63231-60-7 |
| 5702A | 63231-60-7 | 5799C | 63231-60-7 | | |
| 5702B | 63231-60-7 | 5801A | 63231-60-7 | | |
| 5703A | 63231-60-7 | 5802A | 63231-60-7 | | |
| 5704A | 63231-60-7 | 5803A | 63231-60-7 | | |
| 5705A | 63231-60-7 | 5803C | ----- * | | |
| 5706A | 63231-60-7 | 5805A | 63231-60-7 | | |
| 5707A | 63231-60-7 | 5806A | 63231-60-7 | | |
| 5708A | 63231-60-7 | 5812A | 63231-60-7 | | |
| 5709A | 63231-60-7 | 5816A | 63231-60-7 | | |
| 5713A | 63231-60-7 | 5816B | 63231-60-7 | | |
| 5714A | 63231-60-7 | 5818A | 63231-60-7 | | |
| 5714B | 63231-60-7 | 5818B | 63231-60-7 | | |
| 5714T | 63231-60-7 | 5818D | 63231-60-7 | | |
| 5714U | 63231-60-7 | 5818E | 63231-60-7 | | |
| 5715A | 63231-60-7 | 5818F | 63231-60-7 | | |
| 5718A | 63231-60-7 | 5818U | 63231-60-7 | | |
| 5720A | 63231-60-7 | 5819A | 63231-60-7 | | |
| 5721A | 63231-60-7 | 5821A | 63231-60-7 | | |
| 5723A | 63231-60-7 | 5821F | 63231-60-7 | | |
| 5724A | ----- * | 5826A | 63231-60-7 | | |
| 5725A | 63231-60-7 | 5850A | 63231-60-7 | | |
| 5727A | 63231-60-7 | 5866A | 63231-60-7 | | |
| 5728A | ----- * | 5871A | 63231-60-7 | | |
| 5733A | 63231-60-7 | 5871F | 63231-60-7 | | |
| 5735A | 63231-60-7 | 5872A | 63231-60-7 | | |
| 5737A | 63231-60-7 | 5881A | 63231-60-7 | | |
| 5738A | 63231-60-7 | 5884A | 63231-60-7 | | |
| 5748A | ----- * | 5887A | 63231-60-7 | | |
| 5749A | 63231-60-7 | 5888A | 63231-60-7 | | |
| 5749B | 63231-60-7 | 5888B | 63231-60-7 | | |
| 5749C | 63231-60-7 | 5889A | 63231-60-7 | | |
| 5749D | 63231-60-7 | 5890A | 63231-60-7 | | |
| 5749E | 63231-60-7 | 5896A | 63231-60-7 | | |
| 5760A | 63231-60-7 | 5897A | 63231-60-7 | | |
| 5760U | 63231-60-7 | 5901A | ----- * | | |
| 5765A | 63231-60-7 | 5905A | ----- * | | |
| 5766A | ----- * | 5906A | 63231-60-7 | | |
| 5767A | ----- * | 5909A | 63231-60-7 | | |
| 5788A | 63231-60-7 | 5909B | 63231-60-7 | | |
| 5788B | 63231-60-7 | 5909F | 63231-60-7 | | |
| 5788F | 63231-60-7 | 5910A | 63231-60-7 | | |
| 5788U | 63231-60-7 | 5913A | 63231-60-7 | | |
| 5790A | ----- * | 5913F | 63231-60-7 | | |
| 5790C | ----- * | 5914A | 63231-60-7 | | |
| 5792A | ----- * | 5981A | 63231-60-7 | | |
| 5798A | 63231-60-7 | 5990A | 63231-60-7 | | |
| 5799A | 63231-60-7 | 5992A | ----- * | | |

*There is no CAS registry number for this product.