SAFETY DATA SHEET

THE INTERNATIONAL GROUP, INC.

1. Identification

Product identifier **0200 Series Products (Petrofibe®)**

Other means of identification

SDS number 0200 Series (933974)_USA_English

Synonyms See page 10

Recommended use Further processing , Misc. multiple uses

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

Acute toxicity, inhalation	Category 4
Skin corrosion/irritation	Category 2
Carcinogenicity	Category 1B
Reproductive toxicity	Category 2
Specific target organ toxicity, repeated exposure	Category 1 (adrenal gland, bone marrow, kidney, liver, lymph node, stomach, thymus)
Specific target organ toxicity, repeated exposure	Category 2 (blood)

Environmental hazards

Hazardous to the aquatic environment, acute hazard	Category 1
Hazardous to the aquatic environment, long-term hazard	Category 1

OSHA defined hazards Not classified.

Label elements

Signal word Danger

Hazard statement Harmful if inhaled. Causes skin irritation. May cause cancer. Suspected of damaging fertility or the unborn child. Causes damage to organs (adrenal gland, bone marrow, kidney, liver, lymph node, stomach, thymus) through prolonged or repeated exposure. May cause damage to organs (blood) through prolonged or repeated exposure. Very toxic to aquatic life with long lasting effects.

Precautionary statement

Prevention	Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe mist or vapor. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Avoid release to the environment. Wear protective gloves/protective clothing/eye protection/face protection.
Response	If on skin: Wash with plenty of water. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash before reuse. If inhaled: Remove person to fresh air and keep comfortable for breathing. If exposed or concerned: Get medical advice/attention. Call a poison center/doctor if you feel unwell. Collect spillage.
Storage	Store locked up.
Disposal	Dispose of contents/container in accordance with local/regional/national/international regulations.
Hazard(s) not otherwise classified (HNOC)	None known.
Supplemental information	None.

3. Composition/information on ingredients

Substances

Chemical name	Common name and synonyms	CAS number	%
Gas Oils (Petroleum) Heavy Vacuum		64741-57-7	0 - 99
Residues (petroleum) solvent-extracted vacuum distilled atmospheric residuum		70913-85-8	0 - 99
Footes Oil		64742-67-2	0 - 95
Slack Wax		64742-61-6	0 - 95
Deashphalted Residual Oils		64741-95-3	0 - 89
Condensates (petroleum), vacuum tower		64741-49-7	0 - 20

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 Remove contaminated clothing. Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention. Wash contaminated clothing before reuse. 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 Skin irritation. May cause redness and pain. Edema. Jaundice. Causes damage to organs (adrenal gland, bone marrow, kidney, liver, lymph node, stomach, thymus, blood) through prolonged or repeated exposure. Prolonged exposure may cause chronic effects. 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. Thermal burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. In case of shortness of breath, give oxygen.

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 (CO2).
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
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. 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. 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.
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. Wear appropriate personal protective equipment. For personal protection, see section 8 of the SDS.
Methods and materials for containment and cleaning up	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, regional and national laws. Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Allow molten material to cool and solidify before disposal. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water. Small Spills: Where possible allow molten material to solidify naturally. Scrape up. Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.
Environmental precautions	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.

7. Handling and storage

Precautions for safe handling	Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. 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. 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. 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. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value	Form
Condensates (petroleum), vacuum tower (CAS 64741-49-7)	PEL	5 mg/m3	Mist.
Gas Oils (Petroleum) Heavy Vacuum (CAS 64741-57-7)	PEL	5 mg/m3	Mist.

US. ACGIH Threshold Limit Values

Components	Type	Value	Form
Condensates (petroleum), vacuum tower (CAS 64741-49-7)	TWA	5 mg/m3	Inhalable fraction.
Deashphalted Residual Oils (CAS 64741-95-3)	TWA	5 mg/m3	Inhalable fraction.
Gas Oils (Petroleum) Heavy Vacuum (CAS 64741-57-7)	TWA	5 mg/m3	Inhalable fraction.
Paraffin waxes and Hydrocarbon waxes (CAS 8002-74-2)	TWA	2 mg/m3	Fume.

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value	Form
Condensates (petroleum), vacuum tower (CAS 64741-49-7)	STEL	10 mg/m3	Mist.
	TWA	5 mg/m3	Mist.
Gas Oils (Petroleum) Heavy Vacuum (CAS 64741-57-7)	STEL	10 mg/m3	Mist.
	TWA	5 mg/m3	Mist.
Paraffin waxes and Hydrocarbon waxes (CAS 8002-74-2)	TWA	2 mg/m3	Fume.

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

Appropriate engineering controls Ensure adequate ventilation, especially in confined areas. Provide easy access to water supply and eye wash facilities.

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.

Skin protection

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. Selection and use of respiratory protective equipment should be in accordance with OSHA General Industry Standard 29 CFR 1910.134; or in Canada with CSA Standard Z94.4.

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.

9. Physical and chemical properties

Appearance

Physical state Solid.

Form Soft solid.

Color Off-white to brown.

Odor Petroleum.

Odor threshold No data available.

pH Not applicable.

Melting point/freezing point 86 - 194 °F (30 - 90 °C)

Initial boiling point and boiling range	> 572 °F (> 300 °C)
Flash point	> 302.0 °F (> 150.0 °C) ASTM D-93
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 % v/v
Explosive limit - upper (%)	7 % v/v
Vapor pressure	< 0.01 mm Hg (77 °F/25 °C)
Vapor density	> 5 (Air = 1)
Relative density	0.85 - 0.92 (77 °F/25 °C)
Solubility(ies)	
Solubility (water)	< 0.1 % (68 °F/20 °C)
Partition coefficient (n-octanol/water)	Not available.
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	< 1 % v/v

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 aldehyldes 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. Harmful if inhaled. High concentrations may cause severe irritation, pulmonary edema (body fluid in the lungs) with coughing, wheezing, and abnormal lung sounds.
Skin contact	Causes skin irritation. 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	Skin irritation. May cause redness and pain. Causes damage to organs (adrenal gland, bone marrow, kidney, liver, lymph node, stomach, thymus, blood) through prolonged or repeated exposure. Edema. Jaundice. Prolonged exposure may cause chronic effects. When heated, contact with molten product can cause injury and burns.

Information on toxicological effects

Acute toxicity	Harmful if inhaled.
Skin corrosion/irritation	Causes skin irritation. Contact with molten 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 a respiratory sensitizer.

Skin sensitization This product is not expected to cause skin sensitization.

Germ cell mutagenicity No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Carcinogenicity May cause cancer.

IARC Monographs. Overall Evaluation of Carcinogenicity

Condensates (petroleum), vacuum tower (CAS 64741-49-7)	1 Carcinogenic to humans.
Gas Oils (Petroleum) Heavy Vacuum (CAS 64741-57-7)	2B Possibly carcinogenic to humans.

NTP Report on Carcinogens

Deashphalted Residual Oils (CAS 64741-95-3)	Known To Be Human Carcinogen.
Gas Oils (Petroleum) Heavy Vacuum (CAS 64741-57-7)	Known To Be Human Carcinogen.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not regulated.

Reproductive toxicity Suspected of damaging the unborn child.

Specific target organ toxicity - single exposure Not classified.

Specific target organ toxicity - repeated exposure Causes damage to organs (adrenal gland, bone marrow, kidney, liver, lymph node, stomach, thymus) through prolonged or repeated exposure. May cause damage to organs (blood) through prolonged or repeated exposure.

Aspiration hazard Not an aspiration hazard.

Chronic effects Causes damage to organs through prolonged or repeated exposure. May cause damage to organs through prolonged or repeated exposure. Prolonged inhalation may be harmful. Prolonged exposure may cause chronic effects. 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. Exposure @100g/m3 oil mist produced some lung tissue changes (oil microgranulomas in animals).

12. Ecological information

Ecotoxicity Very toxic to aquatic life with long lasting effects.

Components		Species	Test Results
Gas Oils (Petroleum) Heavy Vacuum (CAS 64741-57-7)			
Aquatic			
Chronic			
Fish	NOAEL	Oncorhynchus mykiss	0.1 mg/l, 28 days

Persistence and degradability No data is available on the degradability of this product.

Bioaccumulative potential No data available on bioaccumulation.

Mobility in soil The product is insoluble or slightly soluble in water.

Other adverse effects 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

Disposal instructions 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.

Local disposal regulations Dispose in accordance with all applicable regulations.

Hazardous waste code The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

Waste from residues / unused products 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).

Contaminated packaging 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

DOT

Not regulated as dangerous goods.

DOT: This product is not regulated as dangerous goods for solid. Shipped hot molten product requires a class 9 “HOT” with statement: Elevated temperature material, liquid, N.O.S. 9, UN3257, III (WAX).

IATA

UN number	UN3077
UN proper shipping name	Environmentally hazardous substance, solid, n.o.s. (Gas Oils (Petroleum) Heavy Vacuum)
Transport hazard class(es)	
Class	9
Subsidiary risk	-
Label(s)	9
Packing group	III
Environmental hazards	Yes
ERG Code	9L
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.

IMDG

UN number	UN3077
UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Gas Oils (Petroleum) Heavy Vacuum)
Transport hazard class(es)	
Class	9
Subsidiary risk	-
Packing group	III
Environmental hazards	
Marine pollutant	Yes
EmS	F-A, S-F
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.

15. Regulatory information

US federal regulations This product is 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.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

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

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous chemical Yes

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

Condensates (petroleum), vacuum tower (CAS 64741-49-7)
Gas Oils (Petroleum) Heavy Vacuum (CAS 64741-57-7)
Paraffin waxes and Hydrocarbon waxes (CAS 8002-74-2)

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

Gas Oils (Petroleum) Heavy Vacuum (CAS 64741-57-7)
Paraffin waxes and Hydrocarbon waxes (CAS 8002-74-2)

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

Condensates (petroleum), vacuum tower (CAS 64741-49-7)
Gas Oils (Petroleum) Heavy Vacuum (CAS 64741-57-7)
Paraffin waxes and Hydrocarbon waxes (CAS 8002-74-2)

US. Rhode Island RTK

Not regulated.

US. California Proposition 65

WARNING: This product contains a chemical known to the State of California to cause cancer.

US - California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT): Listed substance

Gas Oils (Petroleum) Heavy Vacuum (CAS 64741-57-7)

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)	No
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	No
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	No
New Zealand	New Zealand Inventory	No
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	No
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 12-June-2016

Revision date -

Version # 01

Further information The classification for health and environmental hazards is derived by a combination of calculation methods and test data, if available.

NFPA ratings

List of abbreviations

TWA: Time weighted average.
STEL: Short term exposure limit.
PEL: Permissible Exposure Limit.

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	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.

PRODUCT NUMBER
0215A
0216A
0221A
0294A
0299A
R-4664A
R-5108A
R-5410A
R-6260A