8447

9707656
V#029705

SAFETY DATA SHEET

THE INTERNATIONAL GROUP, INC.

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 (CO2).
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	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. 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. Small Spills: Where possible allow molten material to solidify naturally. 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	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.

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.

Specific target organ toxicity - single exposure	Not classified.
Specific target organ toxicity - repeated exposure	Not classified.
Aspiration hazard	Solid product: Not likely, due to the form of the product. Aspiration of large amounts of liquid material is reported to cause lipid pneumonia.
Chronic effects	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.
Further information	None.

12. Ecological information

Ecotoxicity	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.
Persistence and degradability	No data is available on the degradability of this product.
Bioaccumulative potential	No data available.
Mobility in soil	No data available.
Other adverse effects	No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creetion 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.

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

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

US federal regulations

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.

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

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

CERCLA Hazardous Substance List (40 CFR 302.4)

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

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.

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							

Product name	Celcon®		NAGH/EN
MSDS number	870610081	**Revision Date**	Oct.13.2015
Revision Number	0	**Issuing date**	Oct.13.2015

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

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 (CO2)
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

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

Mexico National Exposure Limits

Components	Mexican Carcinogen Category
Formaldehyde	A2

Components	Mexican Ceiling Exposure Limit	
Formaldehyde	3 mg/m³	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/m³ @20 °C
Vapor pressure	not determined
Water solubility	insoluble

10. Stability and reactivity

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

Skin	Polymer particles may cause mechanical irritation. The molten product can cause serious burns.
Eyes	Resin particles, like other inert materials, are mechanically irritating to eyes
Inhalation	Overheating in processing may generate hazardous, irritating vapours. Dust irritating to respiratory tract.
Ingestion	Low toxicity by this route is expected based on the biological activity of high molecular weight polymers.
Other:	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

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%)

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
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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.

Product name	Celcon®		NAGH/EN
MSDS number	870610081	**Revision Date**	Oct.13.2015
Revision Number	0	**Issuing date**	Oct.13.2015

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

THE INTERNATIONAL GROUP, INC.

SAFETY DATA SHEET

the StikkiWorks Co.
SAFETY DATA SHEET
StikkiWAX
March, 2015

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 (CO2).
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	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. 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. Small Spills: Where possible allow molten material to solidify naturally. 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	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.

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.

Specific target organ toxicity - single exposure	Not classified.
Specific target organ toxicity - repeated exposure	Not classified.
Aspiration hazard	Solid product: Not likely, due to the form of the product. Aspiration of large amounts of liquid material is reported to cause lipid pneumonia.
Chronic effects	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.
Further information	None.

12. Ecological information

Ecotoxicity	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.
Persistence and degradability	No data is available on the degradability of this product.
Bioaccumulative potential	No data available.
Mobility in soil	No data available.
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.

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

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

US federal regulations

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.

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

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

CERCLA Hazardous Substance List (40 CFR 302.4)

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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