



THE INTERNATIONAL GROUP, INC.

# SAFETY DATA SHEET

## 1. Identification

<b>Product identifier</b>	<b>8500 - 8800 Series Products (Astorstat®)</b>
<b>Other means of identification</b>	
<b>SDS number</b>	8500 - 8800 Series (921277)_USA_English
<b>CAS number</b>	9002-88-4
<b>Synonyms</b>	See page 8
<b>Recommended use</b>	Various end uses e.g. pharmaceutical excipient, personal care/cosmetics, food contact coatings, additive for wax blends, use in adhesives etc.
<b>Recommended restrictions</b>	None known.
<b>Manufacturer/Importer/Supplier/Distributor information</b>	
<b>Company Name</b>	The International Group Inc.
<b>Address</b>	50 Salome Dr. Toronto ON, M1S2A8, CA
<b>Telephone</b>	+1 416-293-4151
<b>Emergency phone number</b>	+1 416-293-4151 +1 800-561-3509
<b>CHEMTREC (North America)</b>	+1 800-424-9300

## 2. Hazard(s) identification

<b>Physical hazards</b>	Not classified.
<b>Health hazards</b>	Not classified.
<b>OSHA defined hazards</b>	Combustible dust
<b>Label elements</b>	
<b>Hazard symbol</b>	None.
<b>Signal word</b>	Warning
<b>Hazard statement</b>	May form combustible dust concentrations in air.
<b>Precautionary statement</b>	
<b>Prevention</b>	Prevent dust accumulation to minimize explosion hazard. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Keep container tightly closed. Ground/bond container and receiving equipment. Observe good industrial hygiene practices.
<b>Response</b>	Take off contaminated clothing and wash before reuse. In case of fire: Use water fog, foam, dry chemical powder, carbon dioxide to extinguish.
<b>Storage</b>	Store away from incompatible materials.
<b>Disposal</b>	Dispose of waste and residues in accordance with local authority requirements.
<b>Hazard(s) not otherwise classified (HNOC)</b>	None known.
<b>Supplemental information</b>	None.

## 3. Composition/information on ingredients

### Substances

<b>Chemical name</b>	<b>Common name and synonyms</b>	<b>CAS number</b>	<b>%</b>
Polyethylene		9002-88-4	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

<b>Inhalation</b>	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.
<b>Skin contact</b>	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.
<b>Eye contact</b>	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.
<b>Ingestion</b>	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.
<b>Most important symptoms/effects, acute and delayed</b>	Eye and skin contact: When heated, contact with molten product can cause injury and burns. Dust may irritate the respiratory tract, skin and eyes.
<b>Indication of immediate medical attention and special treatment needed</b>	Provide general supportive measures and treat symptomatically.
<b>General information</b>	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

<b>Suitable extinguishing media</b>	Water fog. Foam. Dry chemical powder. Carbon dioxide (CO <sub>2</sub> ). Apply extinguishing media carefully to avoid creating airborne dust. Avoid high pressure media which could cause the formation of a potentially explosible dust-air mixture.
<b>Unsuitable extinguishing media</b>	Do not use water jet as an extinguisher, as this will spread the fire.
<b>Specific hazards arising from the chemical</b>	Explosion hazard: Avoid generating dust; fine dust dispersed in air in sufficient concentrations and in the presence of an ignition source is a potential dust explosion hazard. By heating and fire, irritating vapors/gases may be formed.
<b>Special protective equipment and precautions for firefighters</b>	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
<b>Fire fighting equipment/instructions</b>	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. 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.
<b>Specific methods</b>	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.
<b>General fire hazards</b>	May form combustible dust concentrations in air. Avoid generating dust; fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard.

## 6. Accidental release measures

<b>Personal precautions, protective equipment and emergency procedures</b>	Keep unnecessary personnel away. Do not breathe mist/vapors/dust. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Use only non-sparking tools. Dust deposits should not be allowed to accumulate on surfaces, as these may form an explosive mixture if they are released into the atmosphere in sufficient concentration. For personal protection, see section 8 of the SDS.
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**Methods and materials for containment and cleaning up**

Eliminate all ignition sources (no smoking, flares, sparks or flames in immediate area). Take precautionary measures against static discharge. Use only non-sparking tools. Avoid dispersal of dust in the air (i.e., clearing dust surfaces with compressed air). 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 molten material to cool and solidify before disposal. Following product recovery, flush area with water.

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

**Environmental precautions**

Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS. 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**

Minimize dust generation and accumulation. Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces. 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**

US. OSHA Table Z-3 (29 CFR 1910.1000)

Material	Type	Value	Form
Polyethylene (CAS 9002-88-4)	TWA	5 mg/m3	Respirable fraction.
		15 mg/m3	Total dust.
		50 mppcf	Total dust.
		15 mppcf	Respirable fraction.

**Biological limit values**

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

**Appropriate engineering controls**

Ensure adequate ventilation, especially in confined areas. Explosion-proof general and local exhaust ventilation. Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. 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.

**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.

**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** Slabs, prills, pastilles or granules.  
**Color** White.

**Odor** None.

**Odor threshold** No data available.

**pH** Not applicable.

**Melting point/freezing point** 152.6 - 249.8 °F (67 - 121 °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

**Explosive limit - lower (%)** No data available.

**Explosive limit - upper (%)** No data available.

**Vapor pressure** < 0.01 mm Hg

**Vapor pressure temp.** 77 °F (25 °C)

**Vapor density** > 5 (Air = 1)

**Relative density** 0.92 - 0.96 (H<sub>2</sub>O=1)

**Relative density temperature** 77 °F (25 °C)

### Solubility(ies)

**Solubility (water)** < 0.1 %

**Solubility temp. (water)** 68 °F (20 °C)

**Partition coefficient (n-octanol/water)** No data 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** 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** Keep away from heat, sparks and open flame. Minimize dust generation and accumulation. 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. Dust may irritate the respiratory tract, skin and eyes.

### Information on toxicological effects

**Acute toxicity** Not expected to be acutely toxic.

**Skin corrosion/irritation** Not classified. 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.

#### IARC Monographs. Overall Evaluation of Carcinogenicity

Polyethylene (CAS 9002-88-4) 3 Not classifiable as to carcinogenicity to humans.

#### NTP Report on Carcinogens

Not listed.

#### OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Not regulated.

**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.

**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. Prolonged inhalation of dust may be harmful.

**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 on bioaccumulation.

**Mobility in soil** The product is insoluble 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.

<b>Hazardous waste code</b>	The waste code should be assigned in discussion between the user, the producer and the waste disposal company.
<b>Waste from residues / unused products</b>	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
<b>Contaminated packaging</b>	Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

## 14. Transport information

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

## 15. Regulatory information

<b>US federal regulations</b>	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.
<b>TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)</b>	Not regulated.
<b>CERCLA Hazardous Substance List (40 CFR 302.4)</b>	Not listed.
<b>SARA 304 Emergency release notification</b>	Not regulated.
<b>OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)</b>	Not regulated.
<b>Superfund Amendments and Reauthorization Act of 1986 (SARA)</b>	
<b>SARA 302 Extremely hazardous substance</b>	Not listed.
<b>SARA 311/312 Hazardous chemical</b>	Yes
<b>Classified hazard categories</b>	Combustible dust
<b>SARA 313 (TRI reporting)</b>	Not regulated.
<b>Other federal regulations</b>	
<b>Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List</b>	Not regulated.
<b>Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)</b>	Not regulated.
<b>Safe Drinking Water Act (SDWA)</b>	Not regulated.
<b>US state regulations</b>	
<b>US. Massachusetts RTK - Substance List</b>	Not regulated.
<b>US. New Jersey Worker and Community Right-to-Know Act</b>	Not listed.
<b>US. Pennsylvania Worker and Community Right-to-Know Law</b>	Not listed.

## US. Rhode Island RTK

Polyethylene (CAS 9002-88-4)

### California Proposition 65

California Safe Drinking Water and Toxic Enforcement Act of 2016 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

### 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)	No
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
Taiwan	Taiwan Chemical Substance Inventory (TCSI)	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	24-March-2015
Revision date	10-April-2018
Version #	03
HMIS® ratings	Health: 0 Flammability: 2 Physical hazard: 0

### NFPA ratings



### 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.

<b>PRODUCT NUMBER</b>	<b>PRODUCT NUMBER</b>	<b>PRODUCT NUMBER</b>	<b>PRODUCT NUMBER</b>	<b>PRODUCT NUMBER</b>
8501A	8536E	8595A	8674A	R-6199A
8502A	8537A	8596A	8676A	R-6217A
8504A	8538A	8597A	8676B	R-6217B
8505A	8539A	8603A	8676C	R-6349A
8505B	8540A	8603B	8676D	R-6376A
8505C	8540B	8603C	8676E	R-6401A
8505D	8540C	8604A	8676F	R-6420A
8507A	8541A	8605A	8677A	R-6484A
8507B	8541B	8607A	8680A	R-6508A
8507C	8542A	8607B	8688A	R-6596A
8508A	8542B	8612A	8690A	R-6669A
8508B	8542C	8613A	8691A	R-6796A
8509A	8543A	8614A	8692A	R-6833A
8510A	8544A	8615A	8693A	R-6838A
8510B	8550A	8616A	8695A	R-6864A
8510C	8551A	8617A	8697A	R-6969A
8510D	8552A	8618A	8702A	R-7123A
8511A	8552B	8622A	8703A	R-7134A
8512A	8552C	8623A	8704A	
8513A	8552D	8624A	8704B	
8513B	8553A	8625A	8705A	
8514A	8553B	8626A	8705B	
8514B	8553C	8626B	8706A	
8515A	8554A	8627A	8706B	
8516A	8554B	8628A	8707A	
8516B	8554C	8629A	8708A	
8516C	8555A	8630A	8711A	
8517A	8557A	8630B	8713A	
8518A	8558A	8630C	8720A	
8519A	8559A	8631A	8728A	
8519B	8560A	8647A	8729A	
8520A	8561A	8647B	8731A	
8520B	8561B	8648A	8733A	
8520C	8561C	8649A	8734A	
8520D	8562A	8650A	8735A	
8522A	8563A	8650B	8738A	
8522B	8563B	8651A	8738B	
8522C	8563C	8651B	8741B	
8522D	8564A	8652A	8743A	
8523A	8567A	8652C	8743B	
8523B	8568A	8653A	8744A	
8525A	8569A	8654A	8745A	
8526A	8570A	8655A	8745B	
8526B	8571A	8655B	8747A	
8527A	8573A	8655C	8748A	
8529A	8574A	8655D	8758A	
8529B	8575B	8660A	8760A	
8530A	8577A	8661B	8761A	
8531A	8578A	8665A	8762A	
8532A	8579A	8666A	8763A	
8532B	8582A	8667A	8764A	
8533A	8586A	8667B	8765A	
8534A	8587A	8668A	8766A	
8535A	8589A	8668B	8777A	
8535B	8589B	8668C	8779A	
8535C	8590A	8669A	8783A	
8536A	8591A	8669B	8785A	
8536B	8592A	8670A	R-6134A	
8536C	8593A	8671A	R-6147A	
8536D	8594A	8671B	R-6164A	