Material Safety Data Sheet

Ionex Type Ag-700

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name:	IONEX TYPE Ag-700
Use/Size:	Impregnated Adsorbents
Manufacturer/Supplier:	Molecular Products Inc., a subsidiary of Molecular Products Group
Address:	6837 Winchester Circle, Suite A Boulder, CO 80301
Phone Number:	(303) 666-4400 (Monday – Friday 7:00 am to 5:00 pm MT)
Revision Date:	April 1, 2009
MSDS Date:	April 19, 2007

This MSDS has been compiled in accordance with -EC Directive 91/155/EC -OSHA's Hazcom Standard (29 CFR 1910.1200)

2. COMPOSITION/INFORMATION ON THE COMPONENTS

Component Name	CAS#/Codes	Concentration	R Phrases	Classification
Silver, Ionic	20667-12-3 243-957-1	< 15%	R-None	None
Sulfonated polymer of styrene, ethylstyrene and divinylbenzene	69011-20-7	> 85%	R-36	Irritant

R-36: Irritating to eyes.
S:26-36: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing.

3. HAZARD IDENTIFICATION

EU Main Hazards
Harmful by inhalation and if swallowed.

Routes of Entry
- Eye contact - Skin contact - Inhalation.

Carcinogenic Status
Not considered carcinogenic by NTP, IARC, and OSHA.

Target Organs
- Eye - Skin - Respiratory Tract - Liver - Kidney - Bone

Health Effects - Eyes
Contact may cause conjunctival irritation.

Health Effects - Skin
Material may cause irritation. Contact may cause skeletal (bone) fluorosis.

Health Effects - Ingestion
May cause irritation to gastrointestinal tract. A large dose may cause liver and kidney damage.

Health Effects - Inhalation
Exposure to dusts at high concentrations may cause irritation of the respiratory tract, liver and kidney damage, and skeletal (bone) fluorosis.

4. FIRST AID MEASURES

Eyes
Immediately flood the eye with plenty of water for at least 15 minutes, holding the eye open. Obtain medical attention if soreness or redness persists.

Skin
Wash skin thoroughly with soap and water. Continue washing for at least 15 minutes. Seek medical attention if symptoms occur or redness persists.

Ingestion
Have victim drink 1-3 glasses of water to dilute stomach contents. Never administer anything by mouth if a victim is losing consciousness, is unconscious or is convulsing. Obtain medical attention immediately.

Inhalation
If there is difficulty in breathing, give oxygen. Seek medical attention if symptoms persist.

Advice to Physicians
Treat Symptomatically.

5. FIRE FIGHTING MEASURES

Extinguishing Media
Use water spray, foam, dry chemical or carbon dioxide.

Unusual Fire and Explosion Hazards
This product may give rise to hazardous fumes in a fire. When exposed to water, silver zeolites can become hot and heat to the boiling point of water. Flooding with water will reduce the temperature to safe limits.

Protective Equipment for Fire-Fighting
Wear full protective clothing and self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

This product may be collected by carefully scooping into a pan, paper towel or other absorbent material. Clean up spills in a manner that does not disperse dust into the air. Use non-sparking tools and equipment. Reduce airborne dust and prevent scattering by moistening with water. Transfer into suitable containers for recovery or disposal. Wear appropriate protective clothing. Spilled material may pose a slipping hazard.

7. HANDLING AND STORAGE

Keep container tightly closed when not in use. Avoid buildup of static charge in handling equipment. Do not get in eyes, on skin or on clothing. Avoid breathing dust. Storage area should be: - cool - dry - well ventilated - away from incompatible materials (see section 10 for materials to avoid).

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Occupational Exposure Standards
Exposure limits are listed below, if they exist.

Silver Ionic (as soluble silver compounds)
ACGIH TLV: 0.01 mg/m^3. **OSHA Permissible Exposure Limits (PELs)**: 0.01 mg/m^3 **UK TWA**: 0.01 mg/m^3

Sulfurated Polymer of Styrene
Not Established

Engineering Control Measures
Good general room ventilation is expected to be adequate to control airborne levels. If conditions are dusty, use local exhaust ventilation.

Respiratory Protection
NIOSH Approved dust respirator if conditions are dusty.

Hand Protection
Rubber gloves.

Eye Protection
Chemical goggles or safety glasses with side shields.

Body Protection
Normal work wear.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Beads
Color	White to Gray
Odor	Odorless
pH	No data
Specific Gravity	0.85-2.00
Boiling Range / Point (°C)	No data
Flash Point (PMCC) (°C)	Not flammable
Explosion Limits (%)	Not flammable
Vapor Pressure	Not Applicable
Density	> 0.65 g/ml
Solubility in Water	Insoluble
Vapor Density (Air = 1)	Not Applicable
Melting Point (deg C)	Not Applicable

10. STABILITY AND REACTIVITY

Stability
Stable under normal conditions.

Conditions to Avoid
- High temperatures: exposure to elevated temperatures can cause product to decompose
- contact with water or moisture as heat can be generated

Materials to Avoid
- Water and Moisture - Strong Oxidizing Agents.

Hazardous Polymerization
Will not occur.

Hazardous Decomposition Products
- acrid smoke and irritating fumes - oxides of silver - aromatic compounds - hydrocarbons - organic sulfonates - sulfur oxides

11. TOXICOLOGICAL INFORMATION

Acute Toxicity
Ingestion:
Typical for this family of materials. Oral LD50 (rat) >5000 mg/kg

Eye Contact:
May cause irritation to eyes.

Skin Contact:
Prolonged exposure may cause irritation.

Skin Absorption:
The dermal LD50 has not been determined.

Inhalation:
Vapors are unlikely due to physical properties, no adverse effects anticipated.

12. ECOLOGICAL INFORMATION

Mobility
No relevant studies identified.

Persistence/Degradability
The product is water insoluble and expected to be inert in the environment.

Bio-accumulation
Product is not expected to bioaccumulate.

Ecotoxicity
No acute toxicity is expected.

13. DISPOSAL

Dispose of in accordance with all applicable local and national regulations.

14. TRANSPORT INFORMATION

DOT CFR 172.101 Data	Not Regulated
UN Proper Shipping Name	Not Regulated
UN Class	N/A
UN Number	N/A
UN Packaging Group	N/A
Classification for AIR Transportation (IATA)	Consult current IATA Regulations prior to shipping by air.

15. REGULATORY INFORMATION

EU Label Information

Classification and labelling have been performed according to EU directives 67/548/EEC and 99/45/EC including amendments.

EU Hazard Symbol and Indication of Danger
T: Toxic
Xn: Harmful
N: Dangerous for the environment

R phrases
R-36: Irritating to eyes.

S phrases
S26-36: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing.

US REGULATIONS (Federal, State) and INTERNATIONAL CHEMICAL REGISTRATION LAWS

TSCA Listing
All ingredients have been verified for inclusion on the EPA Toxic Substance Control Act Chemical Substance Inventory.

EINECS Listing
All ingredients in this product are listed on the European Inventory of Existing Commercial Chemical Substances (EINECS) or are exempt from listing.

DSL/NDSL (Canadian) Listing
All ingredients have been verified for inclusion on either the Domestic Substance List (DSL) or the Non-Domestic Substance List (NDSL).

WHMIS Classification
D.2.B
This product was classified in accordance with the hazard criteria of the Canadian Controlled Products Regulations and the MSDS contains all the information required by these regulations.

California Proposition 65
This product does not contain materials which the State of California has found to cause cancer, birth defects or other reproductive harm.

SARA Title III Sect. 302 (EHS)
This product does not contain any chemicals subject to SARA Title III Section 302.

SARA Title III Sect. 304
This product does not contain any chemicals subject to SARA Title III Section 304.

SARA Title III Sect. 311/312 Categorization
This product meets the following SARA Title III Section 311/312 categorizations: Acute Hazard.

SARA Title III Sect. 313
This product contains the following chemicals that are listed in Section 313 at or above the minimum concentrations. –
Silver Oxide (20667-12-3)

16. OTHER INFORMATION

NFPA Ratings
NFPA Code for Flammability - 0
NFPA Code for Health - 1
NFPA Code for Reactivity - 0
NFPA Code for Special Hazards - 0

HMIS Ratings
HMIS Code for Flammability - 0
HMIS Code for Health - 1
HMIS Code for Reactivity - 0
HMIS Code for Personal Protection - See Section 8

Abbreviations
N/A: Denotes no applicable information found or available
CAS#: Chemical Abstracts Service Number
ACGIH: American Conference of Governmental Industrial Hygienists
OSHA: Occupational Safety and Health Administration
TLV: Threshold Limit Value
PEL: Permissible Exposure Limit
STEL: Short Term Exposure Limit
NTP: National Toxicology Program
IARC: International Agency for Research on Cancer
R: Risk
S: Safety
LC50: Lethal Concentration 50%
LD50: Lethal Dose 50%
BOD: Biological Oxygen Demand
KoC: Soil Organic Carbon Partition Coefficient

The information in this safety data sheet is based on the best knowledge available at the time and current legislation. It provides guidance on health, safety and environmental aspects of the product and should not be construed as any guarantee of technical performance or suitability for particular application. As the specific conditions of use are outside the control of the supplier, the user is responsible for ensuring that the product is used in a safe way and in compliance with the relevant requirements of legislation.