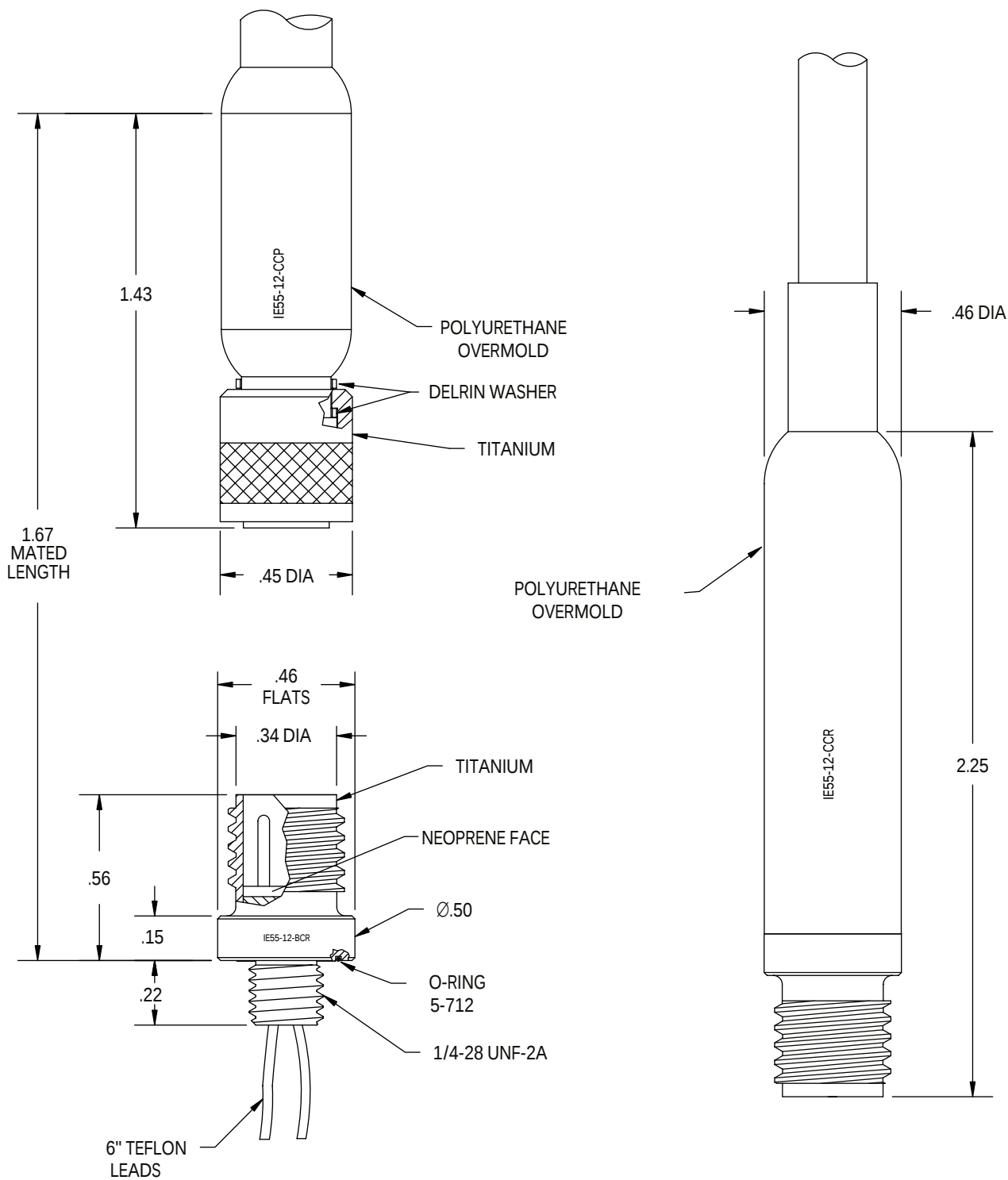
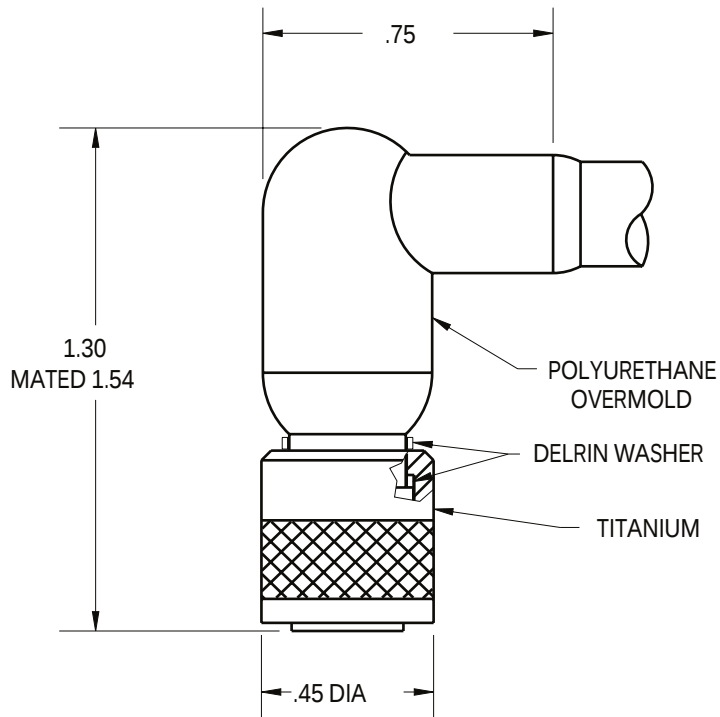
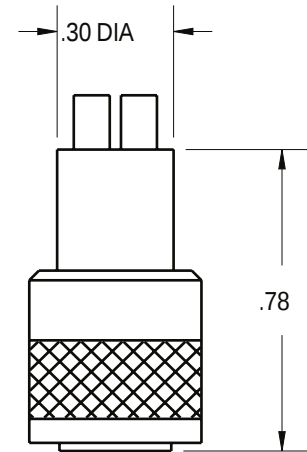


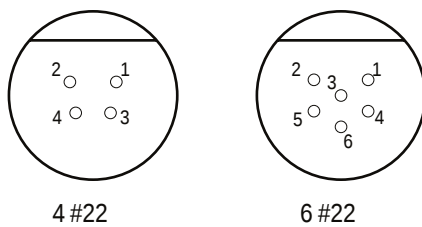




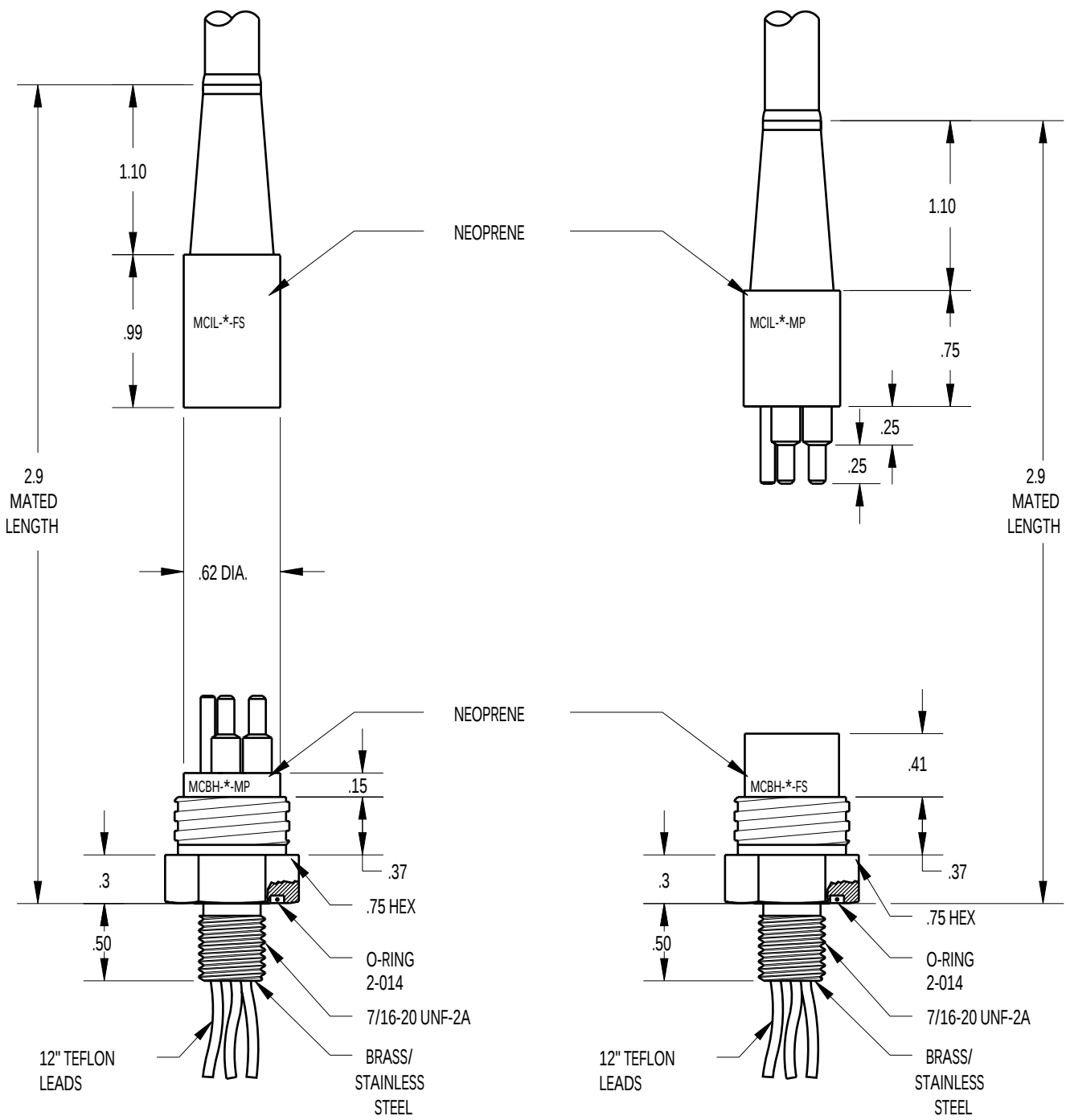
IE55-12-CCP R/A



IE55-12-CCP/UT

CONTACT CONFIGURATION
(BCR FACE VIEW)

MATED PRESSURE RATING (psi)	10,000
MOUNTING TORQUE FOR BCR	not to exceed 15 in/lbs
DUMMY PLUG FOR BCR	IE55-12-SCP
DUMMY PLUG FOR CCP	IE55-12-SCR

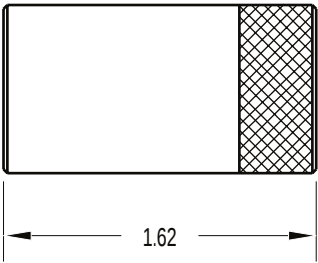
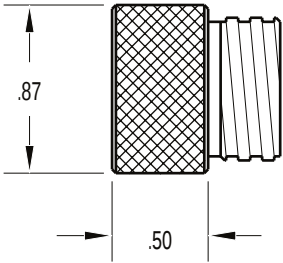


MALE

FEMALE

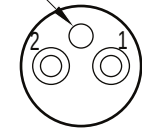
MCDLS-M

MCDLS-F



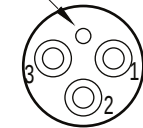
CONTACT
CONFIGURATION
(MP FACE VIEW)

GUIDE PIN



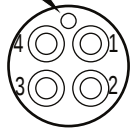
2 CONTACT
W/ GUIDE PIN

GUIDE PIN



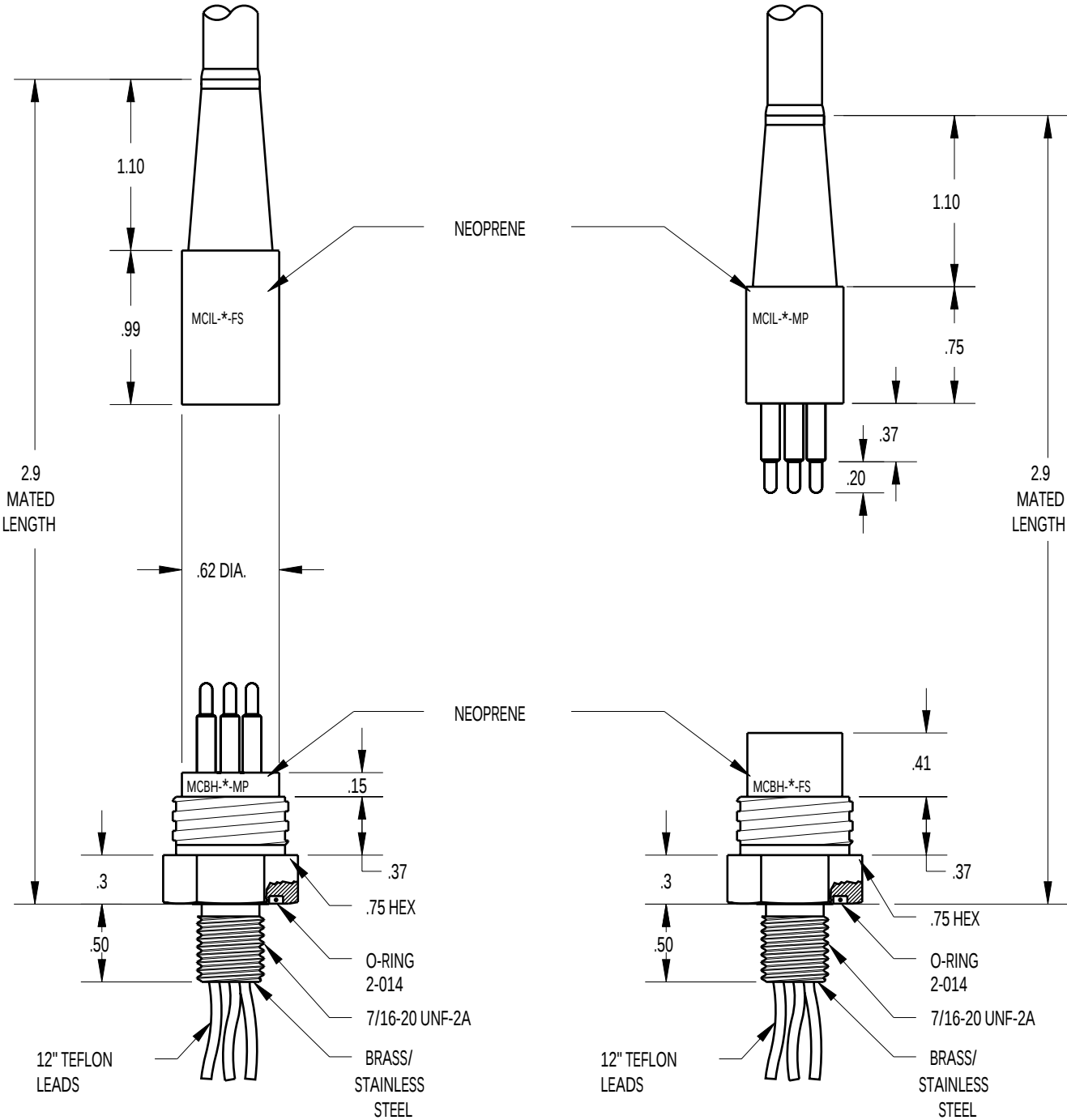
3 CONTACT
W/ GUIDE PIN

GUIDE PIN



4 CONTACT
W/ GUIDE PIN

MOUNTING TORQUE FOR MCIL/BH-FS/MP	not to exceed 100 in/lbs
MATED PRESSURE RATING (psi)	10,000
DUMMY PLUG FOR MCIL/BH-FS	MCDC-*-MP
DUMMY PLUG FOR MCIL/BH-MP	MCDC-*-FS
* Specify number of contacts.	

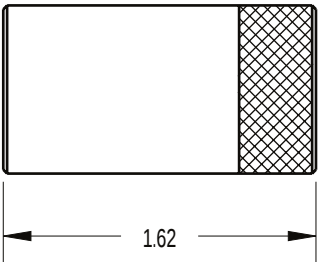
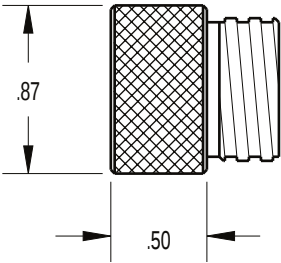


MALE

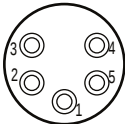
FEMALE

MCDLS-M

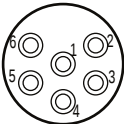
MCDLS-F



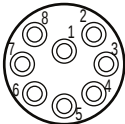
CONTACT
CONFIGURATION
(MP FACE VIEW)



5 CONTACT



6 CONTACT



8 CONTACT

MOUNTING TORQUE FOR MCIL/BH-FS/MP	not to exceed 100 in/lbs
MATED PRESSURE RATING (psi)	10,000
DUMMY PLUG FOR MCIL/BH-FS	MCDC-*-MP
DUMMY PLUG FOR MCIL/BH-MP	MCDC-*-FS
* Specify number of contacts.	

MATERIAL SAFETY DATA SHEET

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Identity (as used on Label and List)

GL-0271 Aluminoborosilicate Alkali Free Glass Spheres

Section I

Product Name: **Glass Spheres**

MS101E 0.6-1.0mm; MS102E 0.8-1.2mm; MS201E 1.0-1.5mm; MS202E 1.5-2.0mm;
MS203E 1.7-2.5mm; MS301E 2.0-2.5mm; MS302E 2.5-3.5mm

Chemical Abstract Service Number: 65997-17-3

HMIS: Health : 0

Flammability: 0

Reactivity: 0

Manufacturers Name

Emergency Telephone Number

MO-SCI Specialty Products, L.L.C.

(573) 364-2338

Address (Number, Street, City, State and Zip Code)

Telephone Number for Information

PO Box 2, Hy-Point Industrial Park

4000 Enterprise Drive

(573) 364-2338

Rolla, Missouri 65402

Date Reviewed July 23, 2002

Section II - Hazardous Ingredients/Identity Information

Hazardous Components	OSHA	ACGIH
	PEL	TLV
Nuisance dust	15 mg/m3	10 mg/m3
Nuisance dust-respirable	5 mg/m3	5 mg/m3

Note: Soda-lime plate glass is used in the manufacture of glass beads. The composition of this material is an amorphous fusion of these oxides and are not crystalline types of free oxides (silica). Therefore, no danger of silicosis exist.

SARA TITLE III - INFORMATION

This product is not an extremely hazardous material according to Federal Register, Vol. 51, No. 221, PP41582-41594. It is not on the toxic chemicals listed in Committee Print Number 99-169 and is not a hazardous substance identified on the list of CERCLA chemicals.

Section III - Physical/Chemical Characteristics

Boiling Point	not measurable	Specific Gravity (H ₂ O=1)	2.6
Vapor Pressure (mm Hg.)	N/A	Softening Temperature	850°C
Vapor Density (AIR=1)	N/A	Evaporation Rate (Butyl Acetate=1)	N/A
Solubility in Water	Non-soluble	Appearance and Odor	Greenish, tasteless, odorless

Chemical Composition: SiO₂..... B₂O₃.....
CaO..... Al₂O₃.....
MgO..... Na₂O+K₂O.....

Section IV - Fire and Explosion Hazard Data

Flash Point	N/A	Flammable Limits - does not ignite	LEL	n/a	UEL	n/a
Extinguishing Media:	not a fire hazard	Special Fire Fighting Procedures:	not required			

Unusual Fire and Explosion Hazards: None

MATERIAL SAFETY DATA SHEET

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Section V - Reactivity Data

STABILITY	Unstable		Conditions to Avoid: n/a
	Stable	X	
Incompatibility (Materials to Avoid): Concentrated Hydrofluoric acid			
Hazardous Decomposition or Byproducts: n/a			
HAZARDOUS	May Occur		Conditions to Avoid: none
POLYMERIZATION	Will Not Occur	X	

Section VI - Health Hazard Data

Route(s) of Entry:	Inhalation? Yes	Skin? n/a	Ingestion? Yes
Health Hazards (Acute and Chronic)	none		
Carcinogenicity:	not listed	NTP? not listed	IARC? not listed OSHA regulated? not listed

Signs and Symptoms of Exposure: Overexposure may cause temporary respiratory and eye irritation.

Medical Conditions Generally Aggravated by Exposure: Overexposure can aggravate existing respiratory conditions and eye irritation.

Emergency and First Aid Procedures: If beads or dust cause eye irritation, flush the affected eye(s) with water or commercial eye wash. If unable to remove bead/dust by this method, seek medical care. If existing respiratory conditions are aggravated in your use of this product, get to a well ventilated area. Seek medical attention if condition is not alleviated.

Section VII - Precautions for Safe Handling and Use

Steps to be Taken in Case Material is Released or Spilled: Vacuum or sweep up excess material to avoid a possible slipping hazard.

Waste Disposal Method: Glass beads are considered to be non-hazardous by the EPA under 29CFR 1910.1200, and if disposed as waste, the RCRA status of UNUSED material is non-hazardous according to the list of CERCLA chemicals. If permitted by applicable Federal, State and Local regulation, glass beads can be disposed of in a solid waste landfill.

Precautions to be Taken in Handling and Storage: None

Other Precautions: None

Section VIII - Control Measures

Respiratory Protection (specify type) Use NIOSH approved dust respirator

VENTILATION	Local Exhaust? as required	Special N/A
	Mechanical(General) as required	Other N/A
Protective Gloves as required	Eye Protection : Safety glasses/goggles for dust	
Other Protective Clothing or Equipment	N/A	
Work Hygienic Practices:	Use good cleanliness procedures.	

MATERIAL SAFETY DATA SHEET

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Identity (as used on Label and List)

GL-0191 Glass Spheres

Section I

Product Name: **GLASS-SHOT, MICROBEADS, MACROBEADS, FILLER BEADS, GLASS BEADS, PAVEMENT BEADS AND MIL SPEC BEADS**

Chemical Abstract Service Number: 65997-17-3

HMIS: Health : 0

Flammability: 0

Reactivity: 0

Manufacturers Name

Emergency Telephone Number

MO-SCI Specialty Products, L.L.C.

(573) 364-2338

Address (Number, Street, City, State and Zip Code)

Telephone Number for Information

PO Box 2, Hy-Point Industrial Park

4000 Enterprise Drive

(573) 364-2338

Rolla, Missouri 65402

Date Reviewed July 23, 2002

Section II - Hazardous Ingredients/Identity Information

Hazardous Components

OSHA

ACGIH

PEL

TLV

Nuisance dust

15 mg/m3

10 mg/m3

Nuisance dust-respirable

5 mg/m3

5 mg/m3

Note: Soda-lime plate glass is used in the manufacture of glass beads. The composition of this material is an amorphous fusion of these oxides and are not crystalline types of free oxides (silica). Therefore, no danger of silicosis exist.

SARA TITLE III - INFORMATION

This product is not an extremely hazardous material according to Federal Register, Vol. 51, No. 221, PP41582-41594. It is not on the toxic chemicals listed in Committee Print Number 99-169 and is not a hazardous substance identified on the list of CERCLA chemicals.

Section III - Physical/Chemical Characteristics

Boiling Point

not measurable

Specific Gravity (H₂O=1)

2.5

Vapor Pressure (mm Hg.)

N/A

Softening Temperature

650°C

Vapor Density (AIR=1)

N/A

Evaporation Rate (Butyl Acetate=1)

N/A

Solubility in Water Non-soluble

Appearance and Odor

Light greenish, tasteless, odorless

Section IV - Fire and Explosion Hazard Data

Flash Point

N/A

Flammable Limits - does not ignite

LEL

n/a

UEL

n/a

Extinguishing Media:

not a fire hazard

Special Fire Fighting Procedures:

not required

Unusual Fire and Explosion Hazards:

None

MATERIAL SAFETY DATA SHEET

Disclaimer: The information and recommendations based herein are based upon data believed to be correct. However, no guarantee or warranty of any kind expressed or implied is made with respect to information combined herein.

Section V - Reactivity Data

STABILITY	Unstable		Conditions to Avoid: n/a
	Stable	X	
Incompatibility (Materials to Avoid): Concentrated Hydrofluoric acid			
Hazardous Decomposition or Byproducts: n/a			
HAZARDOUS	May Occur		Conditions to Avoid: none
POLYMERIZATION	Will Not Occur	X	

Section VI - Health Hazard Data

Route(s) of Entry:	Inhalation? Yes	Skin? n/a	Ingestion? Yes
Health Hazards (Acute and Chronic)	none		
Carcinogenicity:	not listed	NTP? not listed	IARC? not listed OSHA regulated? not listed

Signs and Symptoms of Exposure: Overexposure may cause temporary respiratory and eye irritation.

Medical Conditions Generally Aggravated by Exposure: Overexposure can aggravate existing respiratory conditions and eye irritation.

Emergency and First Aid Procedures: If beads or dust cause eye irritation, flush the affected eye(s) with water or commercial eye wash. If unable to remove bead/dust by this method, seek medical care. If existing respiratory conditions are aggravated in your use of this product, get to a well ventilated area. Seek medical attention if condition is not alleviated.

Section VII - Precautions for Safe Handling and Use

Steps to be Taken in Case Material is Released or Spilled: Vacuum or sweep up excess material to avoid a possible slipping hazard.

Waste Disposal Method: Glass beads are considered to be non-hazardous by the EPA under 29CFR 1910.1200, and if disposed as waste, the RCRA status of UNUSED material is non-hazardous according to the list of CERCLA chemicals. If permitted by applicable Federal, State and Local regulation, glass beads can be disposed of in a solid waste landfill.

Precautions to be Taken in Handling and Storage: None

Other Precautions: None

Section VIII - Control Measures

Respiratory Protection (specify type) Use NIOSH approved dust respirator

VENTILATION	Local Exhaust? as required	Special N/A
	Mechanical(General) as required	Other N/A
Protective Gloves as required	Eye Protection : Safety glasses/goggles for dust	
Other Protective Clothing or Equipment	N/A	
Work Hygienic Practices:	Use good cleanliness procedures.	