



**ICI Acrylics**  
**Material Safety Data Sheet**

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"DIAKON" LG156 ACRYLIC BEAD POLYMER  
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MSDS0008

Revised 17-JUN-1996  
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**CHEMICAL PRODUCT/COMPANY IDENTIFICATION**  
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"DIAKON" is a registered trademark of ICI Acrylics Inc.

Material Identification

MSDS Number	:	0008	
CAS Number	:	25852-37-3	
CAS Name	:	POLY(METHYL METHACRYLATE/BUTYL	ACRYLATE)
Product Use	:	INJECTION MOLDING AND EXTRUSION.	

Company Identification

MANUFACTURER/DISTRIBUTOR  
ICI Acrylics  
3411 Silverside Road - McKean 2nd  
Wilmington, DE 19850-5391

PHONE NUMBERS

Product Information	:	1-800-386-2175
Transportation Emergency	:	1-800-424-9300
Medical Emergency	:	1-800-228-5635 ext.181

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**COMPOSITION/INFORMATION ON INGREDIENTS**  
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Components

Material	CAS Number	%
POLY(METHYL METHACRYLATE/BUTYL ACRYLATE)	25852-37-3	100

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**HAZARDS IDENTIFICATION**  
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\*\*\*\*\*EMERGENCY OVERVIEW\*\*\*\*\*  
\* Clear or colored beads. May evolve irritating fumes on \*  
\* processing or overheating. \*  
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Potential Health Effects:

EYE: Dust may cause irritation.

SKIN: Unlikely to cause skin irritation.

INGESTION: Low oral toxicity.

INHALATION: Unlikely to be hazardous but dust or vapors may cause irritation.

CHRONIC (CANCER) INFORMATION: No evidence of adverse effects but adverse effects unlikely.

TERATOLOGY (BIRTH DEFECT) INFORMATION: No information but adverse effects unlikely.

REPRODUCTIVE INFORMATION: No information but adverse effects unlikely.

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#### FIRST AID MEASURES

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Inhalation: Remove patient from exposure. Obtain medical attention if ill effects occur.

Skin Contact: Wash skin with soap and water. Molten material can cause severe burns. Do NOT try to peel molten polymer from the skin. Cool rapidly with water. Obtain medical attention.

Eye Contact: Remove particles by irrigating with eye wash solution or clean water, holding the eyelids apart. Obtain medical attention.

Ingestion: Do not induce vomiting. Wash out mouth with water. Obtain medical attention if ill effects occur.

Further Medical Treatment: Symptomatic treatment and supportive therapy as indicated.

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#### FIRE FIGHTING MEASURES

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Combustible but not readily ignited. May form explosible dust clouds in air. May decompose if heated above 280 deg. C. Combustion or thermal decomposition will evolve toxic, irritant and flammable vapors.

Incompatible materials: None known.

Extinguishing Media: water spray, foam, dry powder or CO2.

Fire Fighting Protective Equipment : A self-contained breathing apparatus and full protective clothing should be worn in fire conditions.

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#### ACCIDENTAL RELEASE MEASURES

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Caution - spillages may be slippery. Sweep up and shovel into waste drums or plastic bags. Wash the spillage area with water.

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#### HANDLING AND STORAGE

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STORAGE

"DIAKON" acrylic polymers are supplied in either bags or bulk containers. Keep containers in a clean, cool and dry area away from heat sources. Natural ventilation is adequate. Storage Temperature: ambient.

#### HANDLING

Avoid contact with eyes. Avoid prolonged skin contact. Avoid inhalation of high concentrations of dusts. Extra care should be taken to prevent burns from contact with hot material.

#### Process Hazards

Burns are the most common injury during melt processing of thermoplastics. Take utmost care. "DIAKON" grades can be processed safely in molding and

extrusion equipment at melt temperatures up to 280 deg. C. The more rapid decomposition above these temperatures could cause gaseous pressure to be built up, with a risk of spraying low-viscosity polymer from the nozzle or die without any screw movement. All polymers degrade to some extent at their processing temperature, an effect which increases with increasing temperature. It is therefore impossible to be precise about which substances may be evolved. However, it is only the minor components which vary substantially. The major components are given in the "STABILITY AND REACTIVITY" section. Care should be taken when despruing or degating moldings as resultant edges can be sharp and may cause cuts to skin and damage to eyes.

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### EXPOSURE CONTROLS/PERSONAL PROTECTION

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Normal handling: the use of eye protection is recommended. An approved dust mask should be worn if exposure to high levels of dust are likely.

Thermal processing: Wear eye/face protection. Wear thermal insulating gloves when handling hot masses.

#### Exposure Limits

PEL (OSHA) : Particulates (Not Otherwise Classified) 15 mg/m<sup>3</sup>, 8 Hr. TWA, total dust 5 mg/m<sup>3</sup>, 8 Hr. TWA, respirable dust  
TLV (ACGIH): None Established

#### Other Applicable Exposure Limits

##### METHYL METHACRYLATE

PEL (OSHA) : 100 ppm, 410 mg/m<sup>3</sup>, 8 Hr. TWA  
TLV (ACGIH): 100 ppm, 410 mg/m<sup>3</sup>, 8 Hr. TWA  
ICI recommended: 50 ppm, 205 mg/m<sup>3</sup>, 8 Hr. TWA 100 ppm, 410 mg/mg, 15 min. STEL

##### BUTYL ACRYLATE

PEL (OSHA) : 10 ppm, 52 mg/m<sup>3</sup>, 8 Hr. TWA  
TLV (ACGIH): 10 ppm, 52 mg/m<sup>3</sup>, 8 Hr. TWA

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### PHYSICAL AND CHEMICAL PROPERTIES

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Boiling Point (deg, C) : Not applicable.  
Melting Point (deg, C) : Not applicable.

Freezing Point (deg. C) : Not applicable.  
Softening Point (deg. C) : 98 - 119.5 (Refer to grade technical data sheet for values)  
Pour Point (deg. C) : Not applicable.  
Slip Point (deg. C) : Not applicable.  
Specific Gravity : 1.18  
Vapor Pressure (mm Hg) : Not applicable.  
Vapor Pressure (Pascals) : Not applicable.  
Flash Point (deg. C) : 390  
Auto Ignition Temperature (deg. C): 465  
Decomposition Temperature (deg. C): 280  
Solubility (Water) : practically insoluble  
Solubility (Other) : Attacked by chlorinated aliphatic hydrocarbons, aromatic hydrocarbons, ketones, alcohols, ethers and esters.  
Limiting Oxygen Index (% O<sub>2</sub>) : 17.2  
Underwriters Laboratory Rating : UL94: HB

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#### STABILITY AND REACTIVITY

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Hazardous Decomposition Product(s) : Methyl methacrylate, butyl acrylate.

Hazardous Reactions : None known.

Polymerization : will not polymerize.

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#### TOXICOLOGICAL INFORMATION

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Inhalation: Unlikely to be hazardous by inhalation. High concentrations of dust may be irritant to the upper respiratory tract. High concentrations of vapor from hot operations may be harmful, cause irritation of the respiratory tract, and slight narcotic effects.

Skin Contact: Unlikely to cause skin irritation.

Eye Contact: Dust may cause irritation.

Ingestion: Low oral toxicity.

Long Term Exposure : This material has been in use for many years with no evidence of adverse effects.

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#### ECOLOGICAL INFORMATION

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Environmental Fate and Distribution High tonnage material produced in partially contained systems. Solid with low volatility. The product is essentially insoluble in water. The product has low potential for bioaccumulation. The product is predicted to have low mobility in soil.

Persistence and Degradation: The product is non-biodegradable in soil. There is no evidence of degradation in soil and water.

Toxicity: The product is predicted to have low toxicity to aquatic

organisms.

Effect on Effluent Treatment: The product is anticipated to be poorly removed in biological treatment processes.

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#### DISPOSAL CONSIDERATIONS

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"DIAKON" waste is considered to be non-hazardous. Clean scrap may be reprocessed. Incineration may be used to recover energy value. May be disposed of by landfill in accordance with local regulations. Certain packages are returnable. Please consult your local office for further details. Ensure that all packaging is disposed of safely.

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#### TRANSPORTATION INFORMATION

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##### Shipping Information

DOT : not regulated

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#### REGULATORY INFORMATION

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Not classified as hazardous to users or for transport.

##### U.S. Federal Regulations

TSCA Inventory Status : Reported/Included.

##### Canadian Regulations:

DSL regulatory status : Included.

##### European Regulations:

EINECS: Polymer, monomers included, 201-297-1 (methyl methacrylate);  
205-480-7 (butyl acrylate).

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#### OTHER INFORMATION

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##### STATE RIGHT-TO-KNOW LAWS

No substances on the state hazardous substances list, for the states indicated below, are used in the manufacture of products on this Material Safety Data Sheet, with the exceptions indicated. While we do not specifically analyze these products, or the raw materials used in their manufacture, for substances on various state hazardous substances lists, to the best of our knowledge the products on this Material Safety Data Sheet contain no such substances except for those specifically listed below:

SUBSTANCES ON THE PENNSYLVANIA HAZARDOUS SUBSTANCES LIST  
PRESENT AT A CONCENTRATION OF 1% OR MORE (0.01% FOR SPECIAL  
HAZARDOUS SUBSTANCES): None known.

WARNING: SUBSTANCES KNOWN TO THE STATE OF CALIFORNIA TO  
CAUSE CANCER: None known.

WARNING: SUBSTANCES KNOWN TO THE STATE OF CALIFORNIA TO  
CAUSE BIRTH DEFECTS OR OTHER REPRODUCTIVE HARM: None known.

SUBSTANCES ON THE NEW JERSEY WORKPLACE HAZARDOUS SUBSTANCE  
LIST PRESENT AT A CONCENTRATION OF 1% OR MORE (0.1% FOR  
SUBSTANCES IDENTIFIED AS CARCINOGENS, MUTAGENS OR  
TERATOGENS): None known.

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The information herein is given in good faith but no warranty, expressed or  
implied, is made. ICI Acrylics assumes no responsibility for personal  
injury or property damage that may arise from use of this material. Vendees  
or users assume all risks associated with the use of this material.

Responsibility for MSDS :  
MSDS Coordinator  
ICI Acrylics  
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Memphis, TN 38127  
(901)354-1096