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C.D.S. BEADS - MATERIAL DATA SHEET

Solid Glass Beads

Chemical Name & Synonyms	Soda-lime Silicate - Glass			
Chemical Family	Silicate glass without free silica			
Formula		%		%
	SiO ₂	71 - 73	Na ₂ O	13 - 15
	MgO	3 - 5	CaO	8 - 10
	Al ₂ O ₃	0.5 - 2	K ₂ O	0.2 - 0.6

PHYSICAL PROPERTIES

Boiling Point	N/A	Vapour Pressure	N/A
Percent Volatile by Volume	Nil	Vapour Density	N/A
Evaporation Rate	N/A	Odour	Nil
Refractive Index	1.52	Oil Absorption Index (ASTM)	17
Solubility in Water	Not Soluble	Mohs	6
Absolute Specific Gravity (H₂O=1)	2.46	Knoop Load 100:515 kg/mm²	
Apparent Specific Gravity	1.60 kg/dm ³	Hardness DPH Load 50g: 540kg/mm²	
Specific Heat Average	0.18 kcal/mh deg.C	Dielectric Strength	4,500 kV/cm
Dielectric Constant	7.2 (1MC at 20 deg.C)	Expansion Coefficient	8.5 x 10 ⁻⁶

STANDARD SIZES

Grade	Microns	Mesh	Inches	Sphere Count	Grade	Microns	Mesh	Inches	Sphere Count
A	590-840	20-36	.0234-.0331	65%	AD	105-210	70-140	.0041-.0083	80%
B	420-590	30-40	.0165-.0234	70%	AF	74 - 149	100-200	.0029-.0059	90%
C	250-420	40-60	.0098-.0165	70%	AG	53 - 105	140-270	.0021-.0041	90%
AB	177-297	50-80	.0070-.0117	80%	AH	44 - 88	170-325	.0017-.0035	95%
AC	149-250	60-100	.0059-.0098	80%	AQ	30 - 62	270-500	.0012-.0024	95%

HAZARDOUS INGREDIENTS

Paints, Preservations & Solvents

Pigments	Nil
Catalyst	Nil
Vehicle	Nil
Solvents	Nil

Alloys & Metallic Coating

Base Metal	Nil
Alloys	Nil
Metallic Coating	Nil
Filler Metal or Core Flux	Nil

Additives	Nil	Others	Nil
Others	Nil		

HAZARDOUS MIXTURES OF OTHER LIQUIDS, SOLIDS OR GASES Nil

FIRE & EXPLOSION HAZARD DATA

Flash Point	Nil	Special Fire-fighting Procedures	None
Extinguishing Media	N/A	Unusual Fire & Explosion Hazards	None
Flammable Limits	N/A		

HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE

10 milligrams per cubic metre of total dust per eight hour period
5 milligrams per cubic metre of a respirable fraction per eight hour period

EFFECTS OF OVER EXPOSURE

Air-borne material may cause respiratory and eye irritation if recommended exposure limits are exceeded.
No hazard by ingestion, absorption or contact with the skin.

EMERGENCY & FIRST -AID PROCEDURES

For respiratory problems, remove to fresh air
For eye irritation, wash with copious amounts of clean water

REACTIVITY DATA

Stability	Nothing to avoid
Instability	Nothing to avoid
Incompatibility	Avoid Hydrofluoric Acid
Hazardous Decomposition	None
Polymerization Hazard	Nothing to avoid

SPECIAL PROTECTION INFORMATION

Ventilation	Local exhaust recommended
Respiratory Protection	Dust Mask recommended
Eye Protection	Goggles recommended
Hands	Gloves recommended

PACKAGING

Polythene - lined paper bags containing sachet of desiccant as necessary

TRANSPORTATION

No special precautions required

STORAGE

Store in a dry environment under cover.

Avoid extreme temperature changes

SPILLAGE OR LEAKAGE PROCEDURES

Spillage may result in slippery conditions. Beads should be cleared up immediately without creating dust.

WASTE DISPOSAL

Since glass beads are inert, they may be disposed of in a commercial land - fill site.