



Mafrolite[®] : Synthetic Cryolite		Formula - Na ₃ AlF ₆	
		Mol. Wt - 209.97	
		U.N. Number - N.A.	
		CAS No. - 15096-52-3	
SYNONYM	Aluminium Sodium Fluoride, Sodium Hexafluoroaluminate, Ice Spar, Kryolith, Sodium Cryolite		
PRODUCT SPECIFICATION	Grade : Granular	Grade : Crushed	
Total Fluorine as F	53.00 % min	53.00 % min	
Purity as Na ₃ AlF ₆	97.00 % min	97.00 % min	
Sodium as Na	31 - 34 %	30 - 34 %	
Aluminium as Al	13 - 15 %	12 - 14 %	
Silica as SiO ₂	0.20 % max	0.30 % max	
Iron as Fe ₂ O ₃	0.10 % max	0.15 % max	
Sulphite as SO ₃	0.50 % max	0.50 % max	
Phosphorous as P ₂ O ₅	0.01 % max		
Alumina as Al ₂ O ₃	1.00 % max		
Ratio NaF / AlF ₃ by mass	1.3 - 1.45		
Free moisture at 110 °C	0.20 % max		
Loss on Ignition at 550 °C	0.50 % max	1.00 % max	
Bulk Density	1.00 g/cc min		
Passing through 200 BSS Tyler Mesh		98 % min	
PHYSICAL DATA			
Physical Appearance	White to Pinkish White Granule / Powder		
Odour	Odourless	pH	Not Applicable
Melting Point	1000 °C	Boiling Point	N.A.
Vapour Pressure	N.A.	Sp. Gravity	2.95
		Solubility	Not Soluble
HAZARD DATA	Pl. Refer MSDS for details		
Hazard class	N.A.	Flammability	Non Flammable
Flash point	N.A.	Extinguishers	Dry Chemical Powder
Auto Ignition	N.A.	Permissible exposure limit - OSHA : 2.5 mg (F) / m ³ (TWA) Threshold Limit Value - ACGIH : 2 mg (Al) / m ³ (TWA)	
Label required	Danger! May be fatal if Swallowed or Inhaled. Harmful by Ingestion & Skin Absorption. Material is extremely destructive to Skin and Eyes.		
NFPA RATING	Health N.A.	Flammability N.A.	Reactivity N.A.
			Other N.A.
HANDLING / STORAGE	Keep in a tightly closed container. Store in a cool, dry, ventilated area. Protect against damage. Separate from acids and alkalis. Containers of this material may be hazardous when empty. Avoid physical contact, inhalation.		
PACKAGING : 40 Kg / 50 Kg net in Polyethylene Lined HDPE bags or 1 MT net in HDPE Bulk-a-Bags. Paper Bags available on request.	Group - 0		
APPLICATIONS			
By Primary Aluminium Smelters as a flux in electrolytic reduction of alumina to aluminium.			
By Ceramic and Glass Industry as a flux and for inducing opaqueness.			
By Bonded Abrasive Manufacturers as an active filler.			
Also used as an Insecticide, in Explosives, Electric Insulation and Polishes.			