



SODIUM FLUORIDE

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Technical Data Sheet

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CHEMICAL ANALYSIS

CHEMICAL ANALYSIS	SPECIFICATION	TYPICAL ANALYSIS
NaF, %	97.0 minimum	98.2
Insoluble Matter, %	0.6 maximum	0.4
H ₂ O, %	0.5 maximum	0.4
Heavy Metals (as Pb), %	0.04 maximum	0.004
Available Fluorine, %	43.8 minimum	44.4

Product meets ANSI/AWWA Standard B701-11 and is ANSI/NSF-60 certified.

PHYSICAL PROPERTIES

Physical Description	White, free-flowing, odorless solid. Solvay Fluorides Sodium Fluoride is available in two particulate grades. See screen analysis and other product information below.
Molecular Weight	42.0
Boiling Point	1695°C
Melting Point	995°C
Specific Gravity	2.5-2.6
Solubility in H ₂ O @ 20°C	4.1 g/100 g H ₂ O
Average Bulk Density (lb/ft ³)	See below

CONTAINERS

BAG	50 lbs (22.68 kg) net, 5-ply, kraft paper with moisture barrier
DRUM	125 lbs (56.70 kg) net, full, open-head, fiber drum with moisture seal and lock-ring closure 400 lbs (181.44 kg) net, full, open-head, fiber drum with moisture seal & lock-ring closure
SUPERSACK	2000 lbs 907.19 kg) net, Polyethylene liner, woven polypropylene bag

Solvay Fluorides, LLC

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1-800-765-8292
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DOT AND FREIGHT DESCRIPTION

Hazardous Material Description	Sodium Fluoride
Haz. Mat. Class, I.D.#, Packing Group	6.1, UN 1690, PG III
Freight Classification	Sodium Fluoride
Principal CAS Number	7681-49-4
RQ	1000 lbs
Placard	(Toxic)
Label	(Toxic)

TYPICAL SCREEN ANALYSIS

% retained on US Standard screen (additive)

COARSE CRYSTAL (Coarse)				POWDER*			
Solvay Spec.		Typical Screen Analysis		Solvay Spec.		Typical Screen Analysis	
Mesh	%	Mesh	%	Mesh	%	Mesh	%
+20	2% max.	+20	Trace	+100	10% Max.	+100	Trace
+100	50% min.	+100	65%	-250	--		100%
-325	5% max.	-325	2%	-250	--	-250	

AVERAGE BULK DENSITY

Coarse Crystal	□	97 lb/ft ³
Powder		55 lb/ft ³

PRINCIPAL USES

The relatively constant solubility rate of Sodium Fluoride makes it an ideal source for the fluoride ion in the treatment of municipal water supplies. The uniform solubility characteristic is extremely valuable in continuous, automatic, liquid feeding systems. Solvay Fluorides' Sodium Fluoride meets the standard set forth by the American Water Works Association, and is NSF (National Sanitary Foundation) standard 60 Certified.

Sodium Fluoride is used as a flux in the manufacture of rimmed steel. When added to the molten metal, it increases deoxidization or degassing, thereby producing a more uniform ingot.

OTHER INDUSTRIAL USES

Fungicides, Insecticides, Pesticides*
Glass frosting
Glues and Adhesives
Magnesium fluxes
Ore flotation
Stainless steel pickling
Toothpaste
Vitreous enamels
Wood preservatives

* Solvay Fluorides does not maintain any State or Federal active pesticide ingredient registrations for sodium fluoride.

HEALTH HAZARDS

Sodium Fluoride is poisonous when taken internally. Dusts are very noxious and may cause sneezing and irritation of the nose and throat. Care should be taken to avoid accidental ingestion of the dusts. Dust \square type respirators should be worn whenever substantial quantities are to be handled, particularly in dust-producing situations.

Sodium Fluoride is irritating to the skin, especially in the presence of perspiration, and can be painful if allowed to enter open cuts or sores. Allergic reactions may develop under prolonged contact. Rubber or vinyl gloves should be worn when handling the material, and contact with the bare skin should be avoided.

Before using, read Safety Data Sheet (SDS) for this chemical.
Solvay Fluorides, LLC

24-hour Emergency Phone Number – 800-424-9300 (CHEMTREC[®])

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