



# FLUOPRAY™ SSF

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Date of issue: 03/16/2015 Version: 1.0

**Distributed by:**  
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### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1. Product identifier

Product form : Substance  
Trade name : FLUOPRAY™ SSF  
Chemical name : Disodium hexafluorosilicate  
CAS No : 16893-85-9  
Product code : PR-014GHS  
Formula : Na<sub>2</sub>SiF<sub>6</sub>  
Synonyms : Sodium hexafluorosilicate; Sodium fluorosilicate

#### 1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture : Opalizing agent  
Textile industries  
brazing, soldering flux for aluminium  
Ceramic tiles  
Latex  
Water fluoridation

#### 1.3. Details of the supplier of the safety data sheet

PRAYON S.A.  
Rue Joseph Wauters, 144  
Engis, B-4480 - Belgique-Belgium  
T +32 (0)4 273 92 11 - F +32 (0)4 273 96 35  
[Reachcustomer@prayon.be](mailto:Reachcustomer@prayon.be) - [www.prayon.be](http://www.prayon.be)

#### 1.4. Emergency telephone number

Emergency number : CHEMTREC 1-800-424-9300

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

##### GHS-US classification

Acute Tox. 3 (Oral) H301  
Acute Tox. 3 (Dermal) H311  
Acute Tox. 3 (Inhalation:gas) H331  
Full text of H-phrases: see section 16

#### 2.2. Label elements

##### GHS-US labelling

Hazard pictograms (GHS-US) :



GHS06

Signal word (GHS-US) : Danger  
Hazard statements (GHS-US) : H301 - Toxic if swallowed  
H311 - Toxic in contact with skin  
H331 - Toxic if inhaled  
Precautionary statements (GHS-US) : P261 - Avoid breathing spray, mist, fume, gas, dust, vapours  
P280 - Wear protective gloves, protective clothing, eye protection, face protection  
P301+P310 - If swallowed: Immediately call a POISON CENTER, a doctor  
P302+P352 - If on skin: Wash with plenty of hands, forearms and face  
P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing  
P405 - Store locked up

#### 2.3. Other hazards

No additional information available

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### 2.4. Unknown acute toxicity (GHS-US)

Not applicable

## SECTION 3: Composition/information on ingredients

### 3.1. Substance

Name : FLUOPRAY™ SSF

CAS No : 16893-85-9

Name	Product identifier	%	GHS-US classification
Sodium fluorosilicate	(CAS No) 16893-85-9	>= 95	Acute Tox. 3 (Oral), H301 Acute Tox. 3 (Dermal), H311 Acute Tox. 3 (Inhalation), H331

Full text of H-phrases: see section 16

### 3.2. Mixture

Not applicable

### 4.1. Description of first aid measures

- First-aid measures after inhalation : Remove victim to fresh air. If breathing is difficult, give oxygen. If breathing stops, perform cardio pulmonary resuscitation (CPR). Take to hospital.
- First-aid measures after skin contact : Wash immediately with plenty of soap and water. Remove contaminated clothing and shoes. If on skin, take off contaminated clothing. Seek medical attention if ill effect or irritation develops.
- First-aid measures after eye contact : In case of eye contact, immediately rinse with clean water for 10-15 minutes. Call a doctor.
- First-aid measures after ingestion : If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label.

### 4.2. Most important symptoms and effects, both acute and delayed

Symptoms/injuries : Significant pain in the burn region. A calcic depletion may happen.

### 4.3. Indication of any immediate medical attention and special treatment needed

A supervision of the acid-basic balance and the calcium rate in the serum of the blood is necessary.

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

Suitable extinguishing media : Powders. CO2. Sand.

Unsuitable extinguishing media : water.

### 5.2. Special hazards arising from the substance or mixture

- Explosion hazard : In the presence of water, contact with metals may produce hydrogen which may form explosive mixtures with air.
- Reactivity : Stable under normal conditions (Handling and storage).

### 5.3. Advice for firefighters

Protection during firefighting : Only approved supplied air or self-contained breathing apparatus operated in positive pressure mode are satisfactory, if exposure can exceed the exposure limit value. Total impervious protective suits, gloves, and boots must be worn.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

General measures : Keep public away from danger area. Personal protective equipment (see section (s) :8.2).

#### 6.1.1. For non-emergency personnel

No additional information available

#### 6.1.2. For emergency responders

No additional information available

### 6.2. Environmental precautions

Prevent entry to sewers, soils and natural waters. Notify authorities if product enters sewers or public waters.

### 6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Sweep or shovel spills into appropriate container for disposal. Avoid dust production.

### 6.4. Reference to other sections

See section 8 and 13 for more information.

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### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

- Precautions for safe handling : Do not breathe dust. Always wash your hands immediately after handling this product, and once again before leaving the workplace. Remove contaminated clothing and shoes. Wash clothing before re-using. Packagings, even those that have been emptied, will retain product residue. Always obey safety warnings and handle empty packagings as if they were full. Avoid any direct contact with the product.
- Hygiene measures : When using do not eat, drink or smoke. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Remove contaminated clothing and shoes.

#### 7.2. Conditions for safe storage, including any incompatibilities

- Storage conditions : Store in dry, cool, well-ventilated area. Keep away from food, drink and animal feeding stuffs.

#### 7.3. Specific end use(s)

No additional information available

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

FLUOPRAY™ SSF (16893-85-9)		
ACGIH	ACGIH TWA (mg/m <sup>3</sup> )	2.5 mg/m <sup>3</sup> TWA (as F) (listed under Fluorides)
OSHA	OSHA PEL (TWA) (mg/m <sup>3</sup> )	2.5 mg/m <sup>3</sup> TWA (as dust) (listed under Fluorides).2.5 mg/m <sup>3</sup> TWA (as F) (listed under Fluorides).

#### 8.2. Exposure controls

- Appropriate engineering controls : Local exhaust ventilation with captor/receptor hood. Monitor the atmosphere at regular intervals. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.
- Materials for protective clothing : Nitrile rubber.
- Hand protection : Wear chemical protective gloves.
- Eye protection : Wear safety glasses with side shields.
- Skin and body protection : Protective clothing (with elasticated cuffs and closed neck).
- Respiratory protection : Respiratory protection programs must comply with 29 CFR 1910.134. Use recommended respiratory protection.(NIOSH/MSHA).
- Environmental exposure controls : Prevent entry to sewers and soil.

### SECTION 9: Physical and chemical properties

#### 9.1. Information on basic physical and chemical properties

- Physical state : Solid
- Appearance : Powder.
- Colour : white
- Odour : odourless
- Odour threshold : Not applicable
- pH : No data available
- Relative evaporation rate (butylacetate=1) : No data available
- Melting point : 620 °C ( 1013 hPa)
- Freezing point : 620 °C ( 1013 hPa)
- Boiling point : No data available
- Flash point : Not flammable
- Auto-ignition temperature : Non flammable
- Decomposition temperature : 620 °C
- Flammability (solid, gas) : No data available
- Vapour pressure : Negligible.
- Relative vapour density at 20 °C : No data available
- Relative density : 2.7 (20°C)
- Solubility : Water: 6.96 (22°C)
- Log Pow : Not applicable

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Log Kow	: Not applicable
Viscosity, kinematic	: Not applicable
Viscosity, dynamic	: Not applicable
Explosive properties	: Product is not explosive.
Oxidising properties	: Non oxidizing material.
Explosive limits	: Not applicable Not applicable

### 9.2. Other information

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

Stable under normal conditions (Handling and storage).

### 10.2. Chemical stability

Stable under normal conditions (Handling and storage).

### 10.3. Possibility of hazardous reactions

In the presence of water, contact with metals can produce hydrogen which may form flammable mixtures with air.

### 10.4. Conditions to avoid

Moisture. Heating.

### 10.5. Incompatible materials

acids. Release of fluoric acid. Aluminium. Cyanides. Magnesium.

### 10.6. Hazardous decomposition products

Hydrofluoric Acid.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity : Oral: Toxic if swallowed. Dermal: Toxic in contact with skin. Inhalation:gas: Toxic if inhaled.

FLUOPRAY™ SSF ( f )16893-85-9	
LD50 oral rat	25 - 2000 mg/kg OECD 401
LC50 inhalation rat (mg/l)	1814 mg/l OECD 403

Skin corrosion/irritation	: Not classified
Serious eye damage/irritation	: Not classified
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified

Reproductive toxicity	: Not classified
Specific target organ toxicity (single exposure)	: Not classified

Specific target organ toxicity (repeated exposure)	: Not classified
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FLUOPRAY™ SSF (16893-85-9)	
NOAEL (oral, rat, 90 days)	25 mg/kg bodyweight/day Similar to: EPA OPP 83-5

Aspiration hazard	: Not classified
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## SECTION 12: Ecological information

### 12.1. Toxicity

FLUOPRAY™ SSF (16893-85-9)	
LC50 fishes 1	37,5 mg/l (96h) Dario rerio, OECD 203
EC50 Daphnia 1	35,4 mg/l (48h) - daphnia magna, OECD 202
ErC50 (algae)	18 mg/l (72h) - Pseudokirchnerella subcapitata, OECD 201
NOEC chronic fish	4 mg/l (21 d), Oncorhynchus mykiss

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FLUOPRAY™ SSF (16893-85-9)	
NOEC (additional information)	ACTIVATED SLUDGE NOEC (3h): 510 mg/L; (16h-72h): 7,1-226 mg/L

### 12.2. Persistence and degradability

FLUOPRAY™ SSF (16893-85-9)	
Persistence and degradability	Not relevant. (inorganic substance).

### 12.3. Bioaccumulative potential

FLUOPRAY™ SSF (16893-85-9)	
Log Pow	Not applicable
Log Kow	Not applicable
Bioaccumulative potential	small.

### 12.4. Mobility in soil

FLUOPRAY™ SSF (16893-85-9)	
Ecology - soil	No data available.

### 12.5. Other adverse effects

Other adverse effects	: No.
Effect on ozone layer	:
Effect on the global warming	: No known ecological damage caused by this product.

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Waste treatment methods	: Hazardous waste due to toxicity. Dispose of this material and its container at hazardous or special waste collection point. Dispose in a safe manner in accordance with local/national regulations.
Additional information	: Empty packaging can have residues or dusts and are subject to proper waste disposal, as above.

## SECTION 14: Transport information

In accordance with DOT	
Transport document description	: UN2674 Sodium fluorosilicate, 6.1, III
UN-No.(DOT)	: UN2674
Proper Shipping Name (DOT)	: Sodium fluorosilicate
Department of Transportation (DOT) Hazard Classes	: 6.1 - Class 6.1 - Poisonous materials 49 CFR 173.132
Hazard labels (DOT)	: 6.1 - Poison inhalation hazard



Packing group (DOT)	: III - Minor Danger
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DOT Special Provisions (49 CFR 172.102)	: IB8 - Authorized IBCs: Metal (11A, 11B, 11N, 21A, 21B, 21N, 31A, 31B and 31N); Rigid plastics (11H1, 11H2, 21H1, 21H2, 31H1 and 31H2); Composite (11HZ1, 11HZ2, 21HZ1, 21HZ2, 31HZ1 and 31HZ2); Fiberboard (11G); Wooden (11C, 11D and 11F); Flexible (13H1, 13H2, 13H3, 13H4, 13H5, 13L1, 13L2, 13L3, 13L4, 13M1 or 13M2). IP3 - Flexible IBCs must be sift-proof and water-resistant or must be fitted with a sift-proof and water-resistant liner. T1 - 1.5 178.274(d)(2) Normal..... 178.275(d)(2) TP33 - The portable tank instruction assigned for this substance applies for granular and powdered solids and for solids which are filled and discharged at temperatures above their melting point which are cooled and transported as a solid mass. Solid substances transported or offered for transport above their melting point are authorized for transportation in portable tanks conforming to the provisions of portable tank instruction T4 for solid substances of packing group III or T7 for solid substances of packing group II, unless a tank with more stringent requirements for minimum shell thickness, maximum allowable working pressure, pressure-relief devices or bottom outlets are assigned in which case the more stringent tank instruction and special provisions shall apply. Filling limits must be in accordance with portable tank special provision TP3. Solids meeting the definition of an elevated temperature material must be transported in accordance with the applicable requirements of this subchapter.
DOT Packaging Exceptions (49 CFR 173.xxx)	: 153
DOT Packaging Non Bulk (49 CFR 173.xxx)	: 213
DOT Packaging Bulk (49 CFR 173.xxx)	: 240
DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27)	: 100 kg
DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75)	: 200 kg
DOT Vessel Stowage Location	: A - The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel.
DOT Vessel Stowage Other	: 52 - Stow "separated from" acids

### Additional information

Other information : No supplementary information available.

### ADR

Transport document description	: UN 2674 SODIUM FLUOROSILICATE, 6.1, III, (E)
Packing group (ADR)	: III
Class (ADR)	: 6.1 - Toxic substances
Hazard identification number (Kemler No.)	: 60
Classification code (ADR)	: T5
Danger labels (ADR)	: 6.1 - Toxic substances



Orange plates



Tunnel restriction code (ADR)	: E
LQ	: 5kg
Excepted quantities (ADR)	: E1

### Transport by sea

UN-No. (IMDG)	: 2674
Proper Shipping Name (IMDG)	: SODIUM FLUOROSILICATE
Class (IMDG)	: 6.1 - Toxic substances
Packing group (IMDG)	: III - substances presenting low danger

### Air transport

UN-No.(IATA)	: 2674
Proper Shipping Name (IATA)	: Sodium fluorosilicate

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Class (IATA) : 6.1 - Toxic Substances

Packing group (IATA) : III - Minor Danger

### SECTION 15: Regulatory information

#### 15.1. US Federal regulations

##### FLUOPRAY™ SSF (16893-85-9)

Listed on the United States TSCA (Toxic Substances Control Act) inventory  
Not listed on the United States SARA Section 313

RQ (Reportable quantity, section 304 of EPA's List of Lists)	Not applicable
SARA Section 302 Threshold Planning Quantity (TPQ)	Not applicable
SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard
SARA Section 313 - Emission Reporting	Not applicable

#### 15.2. International regulations

##### CANADA

##### FLUOPRAY™ SSF (16893-85-9)

Listed on the Canadian DSL (Domestic Substances List) inventory.

WHMIS Classification	Class D Division 1 Subdivision B - Toxic material causing immediate and serious toxic effects
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##### EU-Regulations

No additional information available

##### Classification according to Regulation (EC) No. 1272/2008 [CLP]

Acute Tox. 3 (Dermal) H311

Acute Tox. 3 (Inhalation) H331

Acute Tox. 3 (Oral) H301

Full text of H-phrases: see section 16

##### Classification according to Directive 67/548/EEC [DSD] or 1999/45/EC [DPD]

T; R23/24/25

Full text of R-phrases: see section 16

#### 15.2.2. National regulations

##### FLUOPRAY™ SSF (16893-85-9)

CERCLA reportable quantities : not applicable

California Proposition 65: not applicable

SUBSTANCE LISTED IN THE ANNEX I OF DIRECTIVE 2003/105/CE AMENDING DIRECTIVE 96/82/CE (CONTROL OF MAJOR - ACCIDENT HAZARDS INVOLVING DANGEROUS SUBSTANCES)

Not Listed on SARA Section 302 (Specific toxic chemical listings)

#### 15.3. US State regulations

### SECTION 16: Other information

Data sources : Reach dossier.

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Abbreviations and acronyms : ADN: European Agreement concerning international carriage of Dangerous goods by Inland waterways  
ADR: European Agreement concerning international carriage of Dangerous goods by Road  
AF : Assessment factor  
BCF : Bioconcentration factor  
Bw: Body weight  
CAS: Chemical Abstracts Service  
CLP : Classification, labelling, packaging  
CSR: Chemical Safety Report  
DMEL : Derived maximum effect level  
DNEL: Derivative No effect Level  
EC: European Community  
ELV : Emission limit values  
EN: European Norm  
EUH: European Hazard Statement  
EWC : European Waste catalogue  
IATA: International Air Transport Association  
ICAO: International Civil Aviation Organization  
IMDG: International Maritime Dangerous Goods  
LC50: Median lethal concentration  
LD50 : Median lethal dose  
NOAEL : No-observed-adverse-effect-level  
NOEC : No observed effect concentration  
NOEL : No observed effect level  
OEL : Operator exposure level  
PBT: Persistent, bioaccumulative, Toxic  
PEC : Predicted effect level  
PNEC: Predicted No effect Concentration  
REACH : Registration, evaluation and autorisation of chemicals  
RID: Regulations concerning the international carriage of dangerous goods by rail  
STEL: Short Term Exposure Limit  
TWA : Time weighted average  
vPvB: Very persistent, very bioaccumulative.

Training advice : None.

Full text of H-phrases:

Acute Tox. 3 (Dermal)	Acute toxicity (dermal), Category 3
Acute Tox. 3 (Inhalation)	Acute toxicity (inhal.), Category 3
Acute Tox. 3 (Inhalation:gas)	Acute toxicity (inhalation:gas) Category 3
Acute Tox. 3 (Oral)	Acute toxicity (oral), Category 3
H301	Toxic if swallowed
H311	Toxic in contact with skin
H331	Toxic if inhaled

NFPA health hazard : 3 - Short exposure could cause serious temporary or residual injury even though prompt medical attention was given.

NFPA fire hazard : 0 - Materials that will not burn.

NFPA reactivity : 0 - Normally stable, even under fire exposure conditions, and are not reactive with water.



HMIS III Rating

Health : 3 Serious Hazard - Major injury likely unless prompt action is taken and medical treatment is given

Flammability : 0 Minimal Hazard

Physical : 0 Minimal Hazard

SDS US (GHS HazCom 2012)

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