

# SAFETY DATA SHEET

Version 6.4  
Revision Date 16.02.2026  
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## SECTION 1: IDENTIFICATION 1.1 Product identifiers

Product name : Multi Anion Standard 2 for IC

Product Number : 53798

Brand : Sigma-Aldrich

### 1.2 Other means of identification

No data available

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

Identified uses : For R&D use only. Not for pharmaceutical, household or other uses.

### 1.4 Details of the supplier of the safety data sheet

Company : Merck Life Science Pty Ltd  
Ground Floor, Building 1, 885 Mountain Highway  
BAYSWATER VIC 3153  
AUSTRALIA

Telephone : +61 1800 800 097

E-mail address : customersupport.anz@merckgroup.com

### 1.5 Emergency telephone number

Emergency Phone # : Free call (24/7): 1800 862 115  
Int'l (24/7): +61 2 9037 2994  
(CHEMTREC)

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## SECTION 2. HAZARDS IDENTIFICATION

### GHS Classification

Not a hazardous substance or mixture.

### GHS label elements

No hazard pictogram, no signal word, no hazard statement(s), no precautionary statement(s) required.

### Other hazards which do not result in classification

None known.

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## SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Sigma-Aldrich- 53798

The life science business of Merck operates as MilliporeSigma in the US and Canada

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Substance / Mixture : Mixture  
CAS-No. : Not Assigned

### Components

| Chemical name   | CAS-No.   | Concentration (% w/w) |
|-----------------|-----------|-----------------------|
| sodium fluoride | 7681-49-4 | < 10                  |

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## SECTION 4. FIRST AID MEASURES

If inhaled : After inhalation: fresh air.

In case of skin contact : In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower.

In case of eye contact : After eye contact: rinse out with plenty of water. Remove contact lenses.

If swallowed : After swallowing: make victim drink water (two glasses at most). Consult doctor if feeling unwell.

Most important symptoms and effects, both acute and delayed : The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

Protection of first-aiders : For personal protection see section 8.

Notes to physician : No data available

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## SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media : For this substance/mixture no limitations of extinguishing agents are given.

Specific hazards during fire fighting : Not combustible.

Ambient fire may liberate hazardous vapours.

Hazardous combustion products : Nature of decomposition products not known.

Specific extinguishing methods : none

Special protective equipment for fire-fighters : In the event of fire, wear self-contained breathing apparatus.

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## SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures : Advice for non-emergency personnel:  
Do not breathe vapours, aerosols.  
Evacuate the danger area, observe emergency procedures, consult an expert.  
Advice for emergency responders:  
For personal protection see section 8.

Environmental precautions : No special precautionary measures necessary.

Methods and materials for containment and cleaning up : Observe possible material restrictions (see sections 7 and 10).  
Take up with liquid-absorbent material (e.g. Chemisorb®). Dispose of properly. Clean up affected area.

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## SECTION 7. HANDLING AND STORAGE

For precautions see section 2.2.

Hygiene measures : Change contaminated clothing. Wash hands after working with substance.

Further information on storage conditions : Tightly closed.

Storage class : 12, Non Combustible Liquids

Recommended storage temperature : Recommended storage temperature see product label.

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## SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Ingredients with workplace control parameters

| Components      | CAS-No.   | Value type (Form of exposure) | Control parameters / Permissible concentration | Basis  |
|-----------------|-----------|-------------------------------|------------------------------------------------|--------|
| sodium fluoride | 7681-49-4 | TWA                           | 2.5 mg/m <sup>3</sup> (Fluorine)               | AU OEL |

|  |  |     |                                     |       |
|--|--|-----|-------------------------------------|-------|
|  |  | TWA | 2.5 mg/m <sup>3</sup><br>(Fluorine) | ACGIH |
|--|--|-----|-------------------------------------|-------|

#### Biological occupational exposure limits

| Components      | CAS-No.   | Control parameters  | Biological specimen | Sampling time                                            | Permissible concentration | Basis     |
|-----------------|-----------|---------------------|---------------------|----------------------------------------------------------|---------------------------|-----------|
| sodium fluoride | 7681-49-4 | Fluoride (Fluorine) | Urine               | Prior to shift (16 hours after exposure ceases)          | 2 mg/l                    | ACGIH BEI |
|                 |           | Fluoride (Fluorine) | Urine               | End of shift (As soon as possible after exposure ceases) | 3 mg/l                    | ACGIH BEI |

**Engineering measures** : No data available

#### Personal protective equipment

Respiratory protection : Not required; except in case of aerosol formation.

Hand protection

Remarks : not required

Eye protection : Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).  
Safety glasses

## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : liquid

Color : No data available

Odor : No data available

Odor Threshold : No data available

pH : No data available

Melting point : No data available

|                                                     |                                 |
|-----------------------------------------------------|---------------------------------|
| Boiling point/boiling range                         | : No data available             |
| Flash point                                         | : Not applicable                |
| Evaporation rate                                    | : No data available             |
| Flammability (solid, gas)                           | : No data available             |
| Flammability (liquids)                              | : The product is not flammable. |
| Burning rate                                        | : No data available             |
| Self-ignition                                       | : Not applicable                |
| Upper explosion limit /<br>Upper flammability limit | : Not applicable                |
| Lower explosion limit /<br>Lower flammability limit | : Not applicable                |
| Vapor pressure                                      | : No data available             |
| Relative vapour density                             | : No data available             |
| Relative density                                    | : No data available             |
| Density                                             | : No data available             |
| Solubility(ies)<br>Water solubility                 | : soluble (20 °C)               |
| Partition coefficient: n-<br>octanol/water          | : No data available             |
| Autoignition temperature                            | : Not applicable                |
| Decomposition tempera-<br>ture                      | : No data available             |
| Viscosity, dynamic                                  | : No data available             |
| Viscosity, kinematic                                | : No data available             |
| Flow time                                           | : No data available             |
| Explosive properties                                | : Not classified as explosive.  |
| Oxidizing properties                                | : none                          |
| Particle characteristics<br>Particle size           | : No data available             |

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## SECTION 10. STABILITY AND REACTIVITY

|                                    |                                                                                           |
|------------------------------------|-------------------------------------------------------------------------------------------|
| Reactivity                         | : No data available                                                                       |
| Chemical stability                 | : The product is chemically stable under standard ambient conditions (room temperature) . |
| Possibility of hazardous reactions | : Violent reactions possible with:<br>The generally known reaction partners of water.     |
| Conditions to avoid                | : no information available                                                                |
| Incompatible materials             | : Strong acids and oxidizing agents                                                       |
| Hazardous decomposition products   | : In the event of fire: see section 5                                                     |

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## SECTION 11. TOXICOLOGICAL INFORMATION

### 11.1 Information on toxicological effects

#### **Mixture**

##### **Acute toxicity**

Oral: No data available

Inhalation: No data available

Dermal: No data available

##### **Skin corrosion/irritation**

No data available

##### **Serious eye damage/eye irritation**

No data available

##### **Respiratory or skin sensitization**

No data available

##### **Germ cell mutagenicity**

No data available

##### **Carcinogenicity**

No data available

##### **Reproductive toxicity**

No data available

##### **Specific target organ toxicity - single exposure**

No data available

##### **Specific target organ toxicity - repeated exposure**

No data available

##### **Aspiration hazard**

No data available

## 11.2 Additional Information

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.  
Hazardous properties cannot be excluded but are unlikely when the product is handled appropriately.

### Components

#### sodium fluoride

##### Acute toxicity

LD50 Oral - Rat - male and female - 148.5 mg/kg  
(US-EPA)

Remarks: (ECHA)

Inhalation: No data available

Dermal: No data available

##### Skin corrosion/irritation

Remarks: Irritating to skin.

##### Serious eye damage/eye irritation

Eyes - Rabbit

Result: Eye irritation - 24 h

Remarks: Moderate eye irritation

##### Respiratory or skin sensitization

Buehler Test - Guinea pig

Result: negative

Remarks: (ECHA)

##### Germ cell mutagenicity

Test Type: Mutagenicity (mammal cell test):

Result: negative

Remarks: (ECHA)

Test Type: Ames test

Test system: Salmonella typhimurium

Result: negative

Remarks: (ECHA)

Species: Mouse - male

Result: negative

##### Carcinogenicity

This product is or contains a component that is not classifiable as to its carcinogenicity based on its IARC, ACGIH, NTP, or EPA classification.

##### Reproductive toxicity

No data available

##### Specific target organ toxicity - single exposure

No data available

##### Specific target organ toxicity - repeated exposure

No data available

##### Aspiration hazard

No data available

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## SECTION 12. ECOLOGICAL INFORMATION

### Ecotoxicity

#### Components:

##### **sodium fluoride:**

|                                                                        |                                                                                                                                                                                                                                                                                                     |
|------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Toxicity to fish                                                       | : NOEC (Cyprinodon variegatus (sheepshead minnow)): 500 mg/l<br>Exposure time: 96 h<br>Test Type: mortality<br><br>LC50 (Gambusia affinis (Mosquito fish)): 925 mg/l<br>Exposure time: 96 h<br>Remarks: (IUCLID)<br><br>LC50 (Oncorhynchus mykiss (rainbow trout)): 200 mg/l<br>Exposure time: 96 h |
| Toxicity to daphnia and other aquatic invertebrates                    | : EC50 (Daphnia magna (Water flea)): 338 mg/l<br>Exposure time: 48 h<br>Remarks: (IUCLID)                                                                                                                                                                                                           |
| Toxicity to algae/aquatic plants                                       | : IC50 (Desmodesmus subspicatus (green algae)): 850 mg/l<br>Exposure time: 72 h<br>Remarks: (IUCLID)                                                                                                                                                                                                |
| Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) | : NOEC (Daphnia magna (Water flea)): 8.9 mg/l<br>Exposure time: 21 d<br>Test Type: static test<br>Remarks: (ECHA)                                                                                                                                                                                   |
| Toxicity to microorganisms                                             | : EC0 (Pseudomonas putida): 231 mg/l<br>Exposure time: 16 h<br>Remarks: (referred to the anion) (maximum permissible toxic concentration) (IUCLID)<br><br>EC50 (activated sludge): 2,930 mg/l<br>Exposure time: 3 h<br>Method: ISO 8192<br>Remarks: (IUCLID)                                        |

### Persistence and degradability

#### Components:

##### **sodium fluoride:**

|                  |                                                       |
|------------------|-------------------------------------------------------|
| Biodegradability | : Remarks: The methods for determining biodegradabil- |
|------------------|-------------------------------------------------------|



ity are not applicable to inorganic substances.

### **Bioaccumulative potential**

#### **Components:**

##### **sodium fluoride:**

Bioaccumulation : Species: Salmo trutta  
Bioconcentration factor (BCF): 2.3  
Exposure time: 10 d  
Concentration: 5 mg/l

Partition coefficient: n-octanol/water : Remarks: Not applicable for inorganic substances

##### **Mobility in soil**

No data available

##### **Other adverse effects**

No data available

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## **SECTION 13. DISPOSAL CONSIDERATIONS**

### **Disposal methods**

Waste from residues : Waste material must be disposed of in accordance with the national and local regulations. Leave chemicals in original containers. No mixing with other waste. Handle uncleaned containers like the product itself.

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## **SECTION 14. TRANSPORT INFORMATION**

### **International Regulations**

#### **IATA-DGR**

Not regulated as a dangerous good

UN/ID No. : Not applicable

Proper shipping name : Not applicable

Class : Not applicable

Subsidiary risk : Not applicable

Packing group : Not applicable

Labels : Not applicable

Packing instruction (cargo aircraft) : Not applicable

Packing instruction (passenger aircraft) : Not applicable

#### **IMDG-Code**

Not regulated as a dangerous good

UN number : Not applicable

Proper shipping name : Not applicable

|                  |                  |
|------------------|------------------|
| Class            | : Not applicable |
| Subsidiary risk  | : Not applicable |
| Packing group    | : Not applicable |
| Labels           | : Not applicable |
| EmS Code         | : Not applicable |
| Marine pollutant | : Not applicable |

### **Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

Not applicable for product as supplied.

### **National Regulations**

#### **ADG**

Not regulated as a dangerous good

|                      |                  |
|----------------------|------------------|
| UN number            | : Not applicable |
| Proper shipping name | : Not applicable |
| Class                | : Not applicable |
| Subsidiary risk      | : Not applicable |
| Packing group        | : Not applicable |
| Labels               | : Not applicable |
| Hazchem Code         | : Not applicable |

### **Special precautions for user**

|         |                                                                        |
|---------|------------------------------------------------------------------------|
| Remarks | : Not classified as dangerous in the meaning of transport regulations. |
|---------|------------------------------------------------------------------------|

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## **SECTION 15. REGULATORY INFORMATION**

### **Safety, health and environmental regulations/legislation specific for the substance or mixture**

|                                                 |                                                                                                                                                                                       |
|-------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Therapeutic Goods (Poisons Standard) Instrument | : No poison schedule number allocated<br>(Please use the original publication to check for specific uses, specific conditions or threshold limits that might apply for this chemical) |
|-------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

|                                    |                                                                                                                                                                                 |
|------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Prohibition/Licensing Requirements | : There is no applicable prohibition, authorisation and restricted use requirements, including for carcinogens referred to in Schedule 10 of the model WHS Act and Regulations. |
|------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

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## **SECTION 16: ANY OTHER RELEVANT INFORMATION**

### **Further information**

|               |              |
|---------------|--------------|
| Revision Date | : 16.02.2026 |
|---------------|--------------|

|                   |                                                                                                                                                               |
|-------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Other information | : The information is believed to be correct but is not exhaustive and will be used solely as a guideline, which is based on current knowledge of the chemical |
|-------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|

substance or mixture and is applicable to appropriate safety precautions for the product. It does not represent any guarantee of the properties of the product. Sigma-Aldrich Corporation and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product. See [www.sigma-aldrich.com](http://www.sigma-aldrich.com) and/or the reverse side of invoice or packing slip for additional terms and conditions of sale.

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Date format : dd.mm.yyyy

### Full text of other abbreviations

ACGIH : USA. ACGIH Threshold Limit Values (TLV)  
ACGIH BEI : ACGIH - Biological Exposure Indices (BEI)  
AU OEL : Australia. Workplace Exposure Standards for Airborne Contaminants.

ACGIH / TWA : 8-hour, time-weighted average  
AU OEL / TWA : Exposure standard - time weighted average

AIIC - Australian Inventory of Industrial Chemicals; ANTT - National Agency for Transport by Land of Brazil; ASTM - American Society for the Testing of Materials; bw - Body weight; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonised System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organisation; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardisation; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; MERCOSUR - The Agreement for the Facilitation of the Transport of Dangerous Goods; n.o.s. - Not Otherwise Specified; Nch - Chilean Norm; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NOM - Official Mexican Norm; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organisation for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation

(EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TDG - Transportation of Dangerous Goods; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative; WHMIS - Workplace Hazardous Materials Information System

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