



# SAFETY DATA SHEET ( SDS )

This safety data sheet complies with the requirements of:  
Regulation (EC) No. 1907/2006 and Regulation (EC) No. 1272/2008, (EU) No. 2015/830

Revision Date 19-Apr-2024

WAI2 - EGHS - EUROPEAN

Revision Number 1

## SECTION 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

### 1.1. Product Identifier

**Product Name** Orion Process Calibration Solution, 192ppm Sodium Standard

**Product No** 702479-A11  
**Unique Formula Identifier (UFI)** Not applicable

**REACH registration number** Not applicable

**Pure substance/mixture** Mixture

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

**Recommended Use** Use as laboratory reagent

**Uses advised against** No Information available

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

**Manufacturer, Importer, Supplier** Thermo Fisher Scientific©  
Water and Lab Products  
22 Alpha Road  
Chelmsford, MA 01824, USA  
1-978-232-6000

**E-mail address** [wlp.techsupport@thermofisher.com](mailto:wlp.techsupport@thermofisher.com)

**Made in** USA

**1.4. Emergency telephone number** 24 Hour Emergency Phone Number  
CHEMTREC®  
Within USA and Canada: 1-800-424-9300  
Outside USA and Canada: 1-703-527-3887  
(collect calls accepted)

## SECTION 2. HAZARDS IDENTIFICATION

### 2.1. Classification of the substance or mixture

#### **Classification - Mixture**

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

This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [GHS]

### 2.2. Label elements

#### **Signal Word**

None

EUH210 - Safety data sheet available on request

#### **Precautionary Statements**

### 2.3. Other hazards

#### **General Hazards**

This product does not contain any known or suspected endocrine disruptors

## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Component	EC No	CAS No	Weight %	CLP Classification - According to GB-CLP Regulations UK SI 2019/720 and UK SI 2020/1567	REACH Reg. No
Water	EEC No. 231-791-2	7732-18-5	90 - 100%	Not classified	No information available
Sodium Chloride	EEC No. 231-598-3	7647-14-5	0 - 10%	-	No information available

Component	CAS No	Specific concentration limits (SCL's)	M-Factor	Component notes
Water	7732-18-5	-	-	-
Sodium Chloride	7647-14-5	-	-	-

## SECTION 4: FIRST AID MEASURES

### 4.1. Description of first aid measures

<b>General Advice</b>	Use first aid treatment according to the nature of the injury. For further assistance, contact your local Poison Control Center. Show this safety data sheet to the doctor in attendance.
<b>Eye Contact</b>	In case of eye contact, remove contact lens and rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.
<b>Skin Contact</b>	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. If symptoms persist, call a physician.
<b>Inhalation</b>	Remove to fresh air. If breathing is difficult, give oxygen. Get medical attention if symptoms occur.
<b>Ingestion</b>	Clean mouth with water and drink afterwards plenty of water. Do NOT induce vomiting. Call a physician or poison control center immediately.
<b>Self-Protection of the First Aider</b>	Use personal protective equipment as required. See section 8 for more information. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.

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

<b>Most important symptoms and effects</b>	See section 11, See section 2 for more information
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### 4.3. Indication of any immediate medical attention and special treatment needed

<b>Notes to Physician</b>	Treat symptomatically
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## SECTION 5: FIREFIGHTING MEASURES

### 5.1. Extinguishing media

#### **Suitable Extinguishing Media**

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

#### **Unsuitable Extinguishing Media**

No information available

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

Thermal decomposition can lead to release of irritating gases and vapors.

### 5.3. Advice for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

## SECTION 6: ACCIDENTAL RELEASE MEASURES

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

<b>Personal Precautions</b>	Use personal protective equipment as required. Evacuate personnel to safe areas.
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### 6.2. Environmental precautions

**Environmental Precautions** Vapors may accumulate to form explosive concentrations.

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

**Methods for Containment** Prevent further leakage or spillage if safe to do so.

**Methods for Cleaning Up** Soak up with inert absorbent material. Pick up and transfer to properly labeled containers.

**Reference to Other Sections**

Refer to protective measures listed in Sections 7 and 8

See Section 8 for information on appropriate personal protective equipment

See Section 12 for additional Ecological Information

See Section 13 for additional waste treatment information

**SECTION 7: HANDLING AND STORAGE**

**7.1. Precautions for safe handling**

**Advice on safe handling**

To avoid risks to human health and the environment, comply with the instructions for use. Wear personal protective equipment/face protection. Avoid breathing dust/fume/gas/mist/vapors/spray. Ensure adequate ventilation, especially in confined areas.

**General hygiene considerations**

Handle in accordance with good industrial hygiene and safety practice.

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

**Storage Conditions**

Keep container tightly closed in a dry and well-ventilated place. Store at room temperature in the original container. Protect from direct sunlight.

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

**Specific Use(s)**

Use as laboratory reagent

**Risk Management Methods (RMM)**

The information required is contained in this Safety Data Sheet.

**SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

**8.1. Control parameters**

**Exposure limits**

List source(s):

Component	Latvia	Lithuania	Luxembourg	Malta	Romania
Sodium Chloride	TWA: 5 mg/m <sup>3</sup>	TWA: 5 mg/m <sup>3</sup> IPRD			

Component	Russia	Slovak Republic	Slovenia	Sweden	Turkey
Sodium Chloride	MAC: 5 mg/m <sup>3</sup>				

**Biological limit values**

This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regulatory bodies

### Monitoring methods

BS EN 14042:2003 Title Identifier: Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents.

### Derived No Effect Level (DNEL)

No information available

Component	Acute effects local (Dermal)	Acute effects systemic (Dermal)	Chronic effects local (Dermal)	Chronic effects systemic (Dermal)
Sodium Chloride 7647-14-5 ( 0 - 10% )		DNEL = 295.52mg/kg bw/day		DNEL = 295.52mg/kg bw/day

Component	Acute effects local (Inhalation)	Acute effects systemic (Inhalation)	Chronic effects local (Inhalation)	Chronic effects systemic (Inhalation)
Sodium Chloride 7647-14-5 ( 0 - 10% )		DNEL = 2068.62mg/m <sup>3</sup>		DNEL = 2068.62mg/m <sup>3</sup>

### Predicted No Effect Concentration (PNEC)

No information available.

Component	Fresh water	Fresh water sediment	Water Intermittent	Microorganisms in sewage treatment	Soil (Agriculture)
Sodium Chloride 7647-14-5 ( 0 - 10% )	PNEC = 5mg/L			PNEC = 500mg/L	PNEC = 4.86mg/kg soil dw

## 8.2. Exposure controls

### Engineering Measures

Showers  
Eyewash stations  
Ventilation systems

### Personal protective equipment

**Eye/face Protection** Wear chemical splash goggles and face shield. If splashes are likely to occur:. Goggles.

**Skin and body protection** Wear protective gloves/protective clothing.

**Respiratory Protection** No protective equipment is needed under normal use conditions. In case of inadequate ventilation wear respiratory protection.

**Environmental exposure controls** No information available

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

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

**Physical State** Liquid

**Appearance** No information available

**Odor** None

**Odor Threshold** No information available

**PH Range** No information available

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
Melting point/freezing point	No information available	
Boiling Point/Range	No information available	
Flash Point (High in °C)	No information available	
Evaporation Rate	No information available	
Flammability (solid, gas)	No information available	
Flammability Limit in Air		
Upper flammability limit:	No information available	
Lower flammability limit:	No information available	
Vapor pressure	No information available	
Vapor Density	No information available	
Specific Gravity	No information available	
Water Solubility	No information available	
Solubility in other solvents	No information available	
Partition coefficient	No information available	
Autoignition Temperature	-	
Decomposition Temperature	No information available	
Kinematic viscosity	No information available	
Dynamic viscosity	No information available	
Explosive Properties	No information available	
Oxidizing Properties	No information available	
<b>9.2. Other information</b>		
Softening Point	No information available	
Molecular Weight	No information available	
VOC Content(%)	No information available	
Density	No Information available	
Bulk Density	No information available	

## SECTION 10: STABILITY AND REACTIVITY

### 10.1. Reactivity

No information available

### 10.2. Chemical stability

Stable under normal conditions

### Explosion Data

Sensitivity to Mechanical Impact	None
Sensitivity to Static Discharge	None

### 10.3. Possibility of hazardous reactions

None under normal processing

### 10.4. Conditions to avoid

Extremes of temperature and direct sunlight

### 10.5. Incompatible materials

No information available

### 10.6. Hazardous decomposition products

Thermal decomposition can lead to release of irritating gases and vapors

## SECTION 11: TOXICOLOGICAL INFORMATION

### 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

## Product Information

### Acute Toxicity

**Unknown Acute Toxicity** 0 % of the mixture consists of ingredient(s) of unknown toxicity.

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Water	LD50 > 90 mL/kg ( Rat )		
Sodium Chloride	LD50 = 3 g/kg ( Rat )	LD50 > 10000 mg/kg ( Rabbit )	LC50 > 42 mg/L ( Rat ) 1 h

**Skin Corrosion/Irritation** No information available

**Serious eye damage/eye irritation** No information available

**Sensitization** No information available

**Mutagenic Effects** No information available

**Carcinogenic effects** No information available

**Reproductive Effects** No information available

**(h) STOT-single exposure;** No data available

**(i) STOT-repeated exposure;** No data available

**Aspiration hazard** No information available

## 11.2. Information on other hazards

**Endocrine Disrupting Properties** Assess endocrine disrupting properties for human health. This product does not contain any known or suspected endocrine disruptors.

## **SECTION 12. ECOLOGICAL INFORMATION**

### 12.1. Toxicity

#### Ecotoxicity effects

0% of the mixture consists of components(s) of unknown hazards to the aquatic environment

Component	Freshwater Algae	Freshwater Fish	Water Flea
Sodium Chloride	-	LC50: 6420 - 6700 mg/L, 96h static (Pimephales promelas) LC50: 4747 - 7824 mg/L, 96h flow-through (Oncorhynchus mykiss) LC50: 6020 - 7070 mg/L, 96h static (Pimephales promelas) LC50: = 12946 mg/L, 96h static (Lepomis macrochirus) LC50: 5560 - 6080 mg/L, 96h flow-through (Lepomis macrochirus) LC50: = 7050 mg/L, 96h semi-static (Pimephales promelas)	EC50: 340.7 - 469.2 mg/L, 48h Static (Daphnia magna) EC50: = 1000 mg/L, 48h (Daphnia magna)

**12.2. Persistence and degradability**

**12.3. Bioaccumulative potential**

**12.4. Mobility in soil**

**12.5. Results of PBT and vPvB assessment**

No information available

**12.6. Endocrine disrupting properties**

This product does not contain any known or suspected endocrine disruptors

**12.7. Other adverse effects**

**Persistent Organic Pollutant**  
**Ozone Depletion Potential**

This product does not contain any known or suspected substance  
This product does not contain any known or suspected substance

**SECTION 13. DISPOSAL CONSIDERATIONS**

**13.1. Waste treatment methods**

**Waste from Residues/Unused Products**

Disposal should be in accordance with applicable regional, national and local laws and regulations.

**Contaminated Packaging**

Improper disposal or reuse of this container may be dangerous and illegal.

**SECTION 14: TRANSPORT INFORMATION**

**IMDG/IMO**

14.1 UN-No	Not Regulated
14.2 Proper Shipping Name	Not Regulated
14.3 Hazard Class	Not Regulated
14.4 Packing Group	Not Regulated
14.5 Marine Pollutant	Not Applicable
14.6 Special Provisions	None
14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	No information available

**ADR**

14.1. UN number	Not Regulated
14.2. UN proper shipping name	Not Regulated
14.3. Transport hazard class(es)	Not Regulated
14.4. Packing group	Not Regulated

**ICAO**

14.1 UN-No	Not Regulated
14.2 Proper Shipping Name	Not Regulated
14.3 Hazard Class	Not Regulated
14.4 Packing Group	Not Regulated
14.5 Environmental hazard	Not Applicable
14.6 Special Provisions	None

**IATA**



<b>14.1 UN-No</b>	Not Regulated
<b>14.2 Proper Shipping Name</b>	Not Regulated
<b>14.3 Hazard Class</b>	Not Regulated
<b>14.4 Packing Group</b>	Not Regulated
<b>14.5 Environmental hazard</b>	Not Applicable
<b>14.6 Special Provisions</b>	None

## SECTION 15: REGULATORY INFORMATION

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

#### International Inventories

Europe (EINECS/ELINCS/NLP), China (IECSC), Taiwan (TCSI), Korea (KECL), Japan (ENCS), Japan (ISHL), Canada (DSL/NDSL), Australia (AICS), New Zealand (NZIoC), Philippines (PICCS), U.S.A. (TSCA).

Component	CAS No	EINECS	ELINCS	NLP	IECSC	TCSI	KECL	ENCS	ISHL
Water	7732-18-5	231-791-2	-	-	X	X	KE-35400	X	-
Sodium Chloride	7647-14-5	231-598-3	-	-	X	X	KE-31387	X	X

Component	CAS No	TSCA	TSCA Inventory notification - Active-Inactive	DSL	NDSL	AICS	NZIoC	PICCS
Water	7732-18-5	X	ACTIVE	X	-	X	X	X
Sodium Chloride	7647-14-5	X	ACTIVE	X	-	X	X	X

**Legend:** X - Listed '-' - Not Listed

**KECL** - NIER number or KE number (<http://ncis.nier.go.kr/en/main.do>)

#### European Union

##### Authorisation/Restrictions according to EU REACH

Component	CAS No	REACH (1907/2006) - Annex XIV - Substances Subject to Authorization	REACH (1907/2006) - Annex XVII - Restrictions on Certain Dangerous Substances	REACH Regulation (EC 1907/2006) article 59 - Candidate List of Substances of Very High Concern (SVHC)
Water	7732-18-5	-	-	-
Sodium Chloride	7647-14-5	-	-	-

<https://echa.europa.eu/substances-restricted-under-reach>

#### Regulation (EC) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of dangerous chemicals

Not applicable

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work

#### National Regulations

**UK** - Take note of Control of Substances Hazardous to Health Regulations (COSHH) 2002 and 2005 Amendment

#### WGK Classification

Water endangering class = 2 (self classification)

Component	Germany - Water Classification (AwSV)
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Sodium Chloride 7647-14-5 ( 0 - 10% )	WGK1
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Component	France - INRS (Tables of occupational diseases)
Sodium Chloride	Tableaux des maladies professionnelles (TMP) - RG 78

Component	Switzerland - Ordinance on the Reduction of Risk from handling of hazardous substances preparation (SR 814.81)	Switzerland - Ordinance on Incentive Taxes on Volatile Organic Compounds (OVOC)	Switzerland - Ordinance of the Rotterdam Convention on the Prior Informed Consent Procedure
Sodium Chloride 7647-14-5 ( 0 - 10% )	Prohibited and Restricted Substances		

## 15.2. Chemical safety assessment

A Chemical safety assessment according to regulation (EC) No. 1907/2006 is not required

## SECTION 16: OTHER INFORMATION

### Key or legend to abbreviations and acronyms used in the safety data sheet

**CAS** - Chemical Abstracts Service

**EINECS/ELINCS** - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances

**PICCS** - Philippines Inventory of Chemicals and Chemical Substances

**IECSC** - Chinese Inventory of Existing Chemical Substances

**KECL** - Korean Existing and Evaluated Chemical Substances

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory

**DSL/NDL** - Canadian Domestic Substances List/Non-Domestic Substances List

**ENCS** - Japanese Existing and New Chemical Substances

**AICS** - Australian Inventory of Chemical Substances

**NZIoC** - New Zealand Inventory of Chemicals

**WEL** - Workplace Exposure Limit

ACGIH TLV: American Conference of Governmental Industrial Hygienists  
- Threshold Limit Value

**DNEL** - Derived No Effect Level

**RPE** - Respiratory Protective Equipment

**LC50** - Lethal Concentration 50%

**NOEC** - No Observed Effect Concentration

**PBT** - Persistent, Bioaccumulative, Toxic

**TWA** - Time Weighted Average

**IARC** - International Agency for Research on Cancer

Predicted No Effect Concentration (PNEC)

**LD50** - Lethal Dose 50%

**EC50** - Effective Concentration 50%

**POW** - Partition coefficient Octanol:Water

**vPvB** - very Persistent, very Bioaccumulative

**ADR** - European Agreement Concerning the International Carriage of Dangerous Goods by Road

**IMO/IMDG** - International Maritime Organization/International Maritime Dangerous Goods Code

**OECD** - Organisation for Economic Co-operation and Development

**BCF** - Bioconcentration factor

**TWA** TWA (time-weighted average)

**Ceiling** Maximum limit value

**ICAO/IATA** - International Civil Aviation Organization/International Air Transport Association

**MARPOL** - International Convention for the Prevention of Pollution from Ships

**ATE** - Acute Toxicity Estimate

**VOC** - (Volatile Organic Compound)

**STEL** STEL (Short Term Exposure Limit)

### Key literature references and sources for data

<https://echa.europa.eu/information-on-chemicals>

Suppliers safety data sheet, Chemadviser - LOLI, Merck index, RTECS

### Full text of H-Statements referred to under section 3

H302 - Harmful if swallowed

H319 - Causes serious eye irritation

H401 - Toxic to aquatic life

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H411 - Toxic to aquatic life with long lasting effects

**Prepared By** Regulatory Affairs  
**Prepared For** Thermo Fisher Scientific Inc.  
**Issue Date** No information available  
**Revision Date** 19-Apr-2024  
**Reason for revision** SDS sections updated.

**This safety data sheet complies with Regulation UK SI 2019/758 and UK SI 2020/1577 as amended.**

**Disclaimer**

IMPORTANT: The information contained in this SDS is correct to the best of our knowledge as of the issue date (or subsequent revision date, if any), and is to be used only as a guide. This SDS does not constitute a guarantee (express or implied) of any kind and we make no warranties of any kind as to the accuracy or completeness of the information contained herein or the merchantability or fitness of the product or this information for a particular purpose. It is the responsibility of each individual buyer/user to determine the suitability of this information and the product for its intended purposes. Product sales are subject to Thermo Fisher Scientific's standard terms and conditions of sale. This information relates only to the designated product as shipped and may not be valid if the product is used in combination with any other materials or is not used in accordance with our instructions, or is altered in any way. It is the responsibility of the buyer/user to ensure that its activities comply with all applicable government requirements. Since conditions of use of the product are not under direct control of Thermo Fisher Scientific, it is the duty of the buyer/user to determine the necessary conditions for the safe use of the product. Thermo Fisher Scientific will not be liable for any injuries or damages resulting from handling, use, misuse or contact with the product.

**End of Safety Data Sheet**