

# **SAFETY DATA SHEET**

Creation Date 14-Sep-2009 Revision Date 24-Dec-2021 Revision Number 4

1. Identification

Product Name Deuterium chloride, 1M solution in D2O

Cat No.: AC210600000, AC210601000

Synonyms No information available

Recommended Use Laboratory chemicals.

**Uses advised against** Food, drug, pesticide or biocidal product use.

Details of the supplier of the safety data sheet

Company

Fisher Scientific Company One Reagent Lane Fair Lawn, NJ 07410 Tel: (201) 796-7100 Acros Organics One Reagent Lane Fair Lawn, NJ 07410

**Emergency Telephone Number** 

For information **US** call: 001-800-ACROS-01 / **Europe** call: +32 14 57 52 11 Emergency Number **US**:001-201-796-7100 / **Europe**: +32 14 57 52 99 **CHEMTREC** Tel. No.**US**:001-800-424-9300 / **Europe**:001-703-527-3887

## 2. Hazard(s) identification

## Classification

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Corrosive to metals Category 1
Skin Corrosion/Irritation Category 2
Serious Eye Damage/Eye Irritation Category 1

Label Elements

Signal Word

Danger

**Hazard Statements** 

May be corrosive to metals Causes skin irritation Causes serious eye damage

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### **Precautionary Statements**

#### Prevention

Wash face, hands and any exposed skin thoroughly after handling Wear protective gloves/protective clothing/eye protection/face protection Keep only in original container

#### Skin

IF ON SKIN: Wash with plenty of soap and water If skin irritation occurs: Get medical advice/attention Take off contaminated clothing and wash before reuse

#### Eyes

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing Immediately call a POISON CENTER or doctor/physician

#### Spills

Absorb spillage to prevent material damage

#### Storage

Store in corrosive resistant polypropylene container with a resistant inliner

### Hazards not otherwise classified (HNOC)

None identified

# 3. Composition/Information on Ingredients

Component	CAS No	Weight %
Water-d2	7789-20-0	96.7
Deuterium chloride	7698-05-7	3.3

## 4. First-aid measures

Eye Contact Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get

medical attention.

Skin Contact Wash off immediately with plenty of water for at least 15 minutes. Get medical attention

immediately if symptoms occur.

Inhalation Remove to fresh air. Get medical attention immediately if symptoms occur. If not breathing,

give artificial respiration.

**Ingestion** Do NOT induce vomiting. Get medical attention.

Most important symptoms and

effects

Causes eye burns.

Notes to Physician Treat symptomatically

# 5. Fire-fighting measures

Unsuitable Extinguishing Media No information available

Flash Point No information available Method - No information available

**Autoignition Temperature** 

**Explosion Limits** 

No information available

Upper
Lower
Sensitivity to Mechanical Impact
Sensitivity to Static Discharge
No data available
No information available
No information available

#### **Specific Hazards Arising from the Chemical**

Keep product and empty container away from heat and sources of ignition.

#### **Hazardous Combustion Products**

Hydrogen chloride gas.

### **Protective Equipment and Precautions for Firefighters**

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

**NFPA** 

HealthFlammabilityInstabilityPhysical hazards201N/A

### 6. Accidental release measures

Personal Precautions
Environmental Precautions

Ensure adequate ventilation. Use personal protective equipment as required.

Should not be released into the environment. See Section 12 for additional Ecological

Information.

**Methods for Containment and Clean** Soak up with inert absorbent material. Keep in suitable, closed containers for disposal. **Up** 

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Handling

Wear personal protective equipment/face protection. Ensure adequate ventilation. Avoid

contact with skin, eyes or clothing. Avoid ingestion and inhalation.

Storage.

Keep containers tightly closed in a dry, cool and well-ventilated place. Incompatible Materials. Strong oxidizing agents. Bases. Amines. Metals.

### 8. Exposure controls / personal protection

**Exposure Guidelines** 

This product does not contain any hazardous materials with occupational exposure limitsestablished by the region specific regulatory bodies.

Engineering Measures None under normal use conditions.

**Personal Protective Equipment** 

**Eye/face Protection** Wear appropriate protective eyeglasses or chemical safety goggles as described by

OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard

EN166.

**Skin and body protection**Wear appropriate protective gloves and clothing to prevent skin exposure.

Respiratory Protection No protective equipment is needed under normal use conditions.

**Hygiene Measures** Handle in accordance with good industrial hygiene and safety practice.

## 9. Physical and chemical properties

Physical StateLiquidAppearanceColorless

Odor No information available Odor Threshold No information available

pH :

Melting Point/RangeNo data availableBoiling Point/Range108 °C / 226.4 °FFlash PointNo information availableEvaporation RateNo information available

Flammability (solid,gas) Not applicable

Flammability or explosive limits

Upper<br/>LowerNo data available<br/>No data availableVapor PressureNo information availableVapor DensityNo information available

Specific Gravity 1.14
Solubility miscible

Partition coefficient; n-octanol/water No data available

Autoignition TemperatureNo information availableDecomposition TemperatureNo information availableViscosityNo information available

# 10. Stability and reactivity

Reactive Hazard None known, based on information available

Stability Hygroscopic.

Conditions to Avoid Incompatible products. Excess heat. Exposure to moist air or water.

Incompatible Materials Strong oxidizing agents, Bases, Amines, Metals

Hazardous Decomposition Products Hydrogen chloride gas

Hazardous Polymerization Hazardous polymerization does not occur.

**Hazardous Reactions** None under normal processing.

# 11. Toxicological information

**Acute Toxicity** 

**Product Information**No acute toxicity information is available for this product. Based on available literature and

data from closely analogous substances using structure/activity relationships. Based on ATE data, the classification criteria are not met. ATE > 2000 mg/kg. Based on ATE data, the classification criteria are not met. ATE > 2000 mg/kg.

**Dermal LD50**Based on ATE data, the classification criteria are not met. ATE > 2000 mg/ **Vapor LC50**Based on ATE data, the classification criteria are not met. ATE > 20 mg/l.

**Component Information** 

Toxicologically Synergistic No information available

**Products** 

Oral LD50

Delayed and immediate effects as well as chronic effects from short and long-term exposure

IrritationNo information availableSensitizationNo information available

**Carcinogenicity** The table below indicates whether each agency has listed any ingredient as a carcinogen.

Component	CAS No	IARC	NTP	ACGIH	OSHA	Mexico
Water-d2	7789-20-0	Not listed				
Deuterium chloride	7698-05-7	Not listed				

**Mutagenic Effects** No information available

Reproductive Effects No information available.

**Developmental Effects** No information available.

No information available. **Teratogenicity** 

STOT - single exposure None known STOT - repeated exposure None known

**Aspiration hazard** No information available

Symptoms / effects, both acute and No information available

delayed

No information available **Endocrine Disruptor Information** 

**Other Adverse Effects** The toxicological properties have not been fully investigated.

# 12. Ecological information

**Ecotoxicity** 

Do not empty into drains.

Persistence and Degradability Miscible with water Persistence is unlikely based on information available.

**Bioaccumulation/ Accumulation** No information available.

Will likely be mobile in the environment due to its water solubility. **Mobility** 

### 13. Disposal considerations

**Waste Disposal Methods** 

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

### 14. Transport information

DOT

**UN-No** UN1789

**Proper Shipping Name** HYDROCHLORIC ACID

**Hazard Class Packing Group** Ш

TDG

UN1789 **UN-No** 

HYDROCHLORIC ACID **Proper Shipping Name** 

**Hazard Class Packing Group** Ш

**IATA** 

UN1789 **UN-No** 

**Proper Shipping Name** Hydrochloric acid

**Hazard Class Packing Group** Ш

IMDG/IMO

**UN-No** UN1789

**Proper Shipping Name** Hydrochloric acid

**Hazard Class Packing Group** Ш

# 15. Regulatory information

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#### **United States of America Inventory**

Component	CAS No	TSCA	TSCA Inventory notification - Active-Inactive	TSCA - EPA Regulatory Flags
Water-d2	7789-20-0	Χ	ACTIVE	-
Deuterium chloride	7698-05-7	-	-	-

#### Legend:

TSCA US EPA (TSCA) - Toxic Substances Control Act, (40 CFR Part 710)

X - Listed

'-' - Not Listed

TSCA 12(b) - Notices of Export Not applicable

#### **International Inventories**

Canada (DSL/NDSL), Europe (EINECS/ELINCS/NLP), Philippines (PICCS), Japan (ENCS), Japan (ISHL), Australia (AICS), China (IECSC), Korea (KECL).

Component	CAS No	DSL	NDSL	EINECS	PICCS	ENCS	ISHL	AICS	IECSC	KECL
Water-d2	7789-20-0	Х	-	232-148-9	-	-		Х	Х	KE-09621
Deuterium chloride	7698-05-7	-	-	231-715-8	-	-		Х	-	-

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

#### U.S. Federal Regulations

SARA 313 Not applicable

SARA 311/312 Hazard Categories See section 2 for more information

CWA (Clean Water Act) Not applicable

Clean Air Act Not applicable

**OSHA** - Occupational Safety and

Health Administration

Not applicable

CERCLA Not applicable

**California Proposition 65** This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know

Regulations

Not applicable

#### **U.S. Department of Transportation**

Reportable Quantity (RQ): N
DOT Marine Pollutant N
DOT Severe Marine Pollutant N

U.S. Department of Homeland

Security

This product does not contain any DHS chemicals.

Other International Regulations

Mexico - Grade No information available

Authorisation/Restrictions according to EU REACH

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

Component	CAS No	OECD HPV	Persistent Organic Pollutant	Ozone Depletion Potential	Restriction of Hazardous Substances (RoHS)
Water-d2	7789-20-0	Not applicable	Not applicable	Not applicable	Not applicable
Deuterium chloride	7698-05-7	Not applicable	Not applicable	Not applicable	Not applicable

Component	CAS No	Seveso III Directive	Seveso III Directive	Rotterdam	Basel Convention
		(2012/18/EC) -	(2012/18/EC) -	Convention (PIC)	(Hazardous Waste)
		Qualifying Quantities	<b>Qualifying Quantities</b>	, ,	,
		for Major Accident	for Safety Report		
		Notification	Requirements		
Water-d2	7789-20-0	Not applicable	Not applicable	Not applicable	Not applicable
Deuterium chloride	7698-05-7	Not applicable	Not applicable	Not applicable	Not applicable

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	. Other	ппоппаноп	

Prepared By Regulatory Affairs

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**Revision Summary** This document has been updated to comply with the US OSHA HazCom 2012 Standard

replacing the current legislation under 29 CFR 1910.1200 to align with the Globally

Harmonized System of Classification and Labeling of Chemicals (GHS).

#### Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

**End of SDS**