

## Tin(II) chloride dihydrate

31669-100G

Version 1.4

Revision Date 17.12.2022

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

#### 1.1. Product identifier

Product name : Tin(II) chloride dihydrate  
SDS-number : 000000020921  
Type of product : Substance  
Remarks : SDS according to Art. 31 of Regulation (EC) 1907/2006.  
In accordance to the Article 14 (1) of the REACH Regulation  
(EC) No 1907/2006, exposure estimation and risk  
characterisation is not required.

Chemical name : Tin dichloride-2-hydrate

CAS-No. : 10025-69-1

REACH Registration  
Number : no data available

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

Use of the  
Substance/Mixture : Laboratory chemicals

Uses advised against : none

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

Company	: Honeywell International Inc. 115 Tabor Road 07950-2546 Morris Plains USA	Honeywell International, Inc. 115 Tabor Road Morris Plains, NJ 07950-2546 USA
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Telephone :  
For further information,  
please contact: : [SafetyDataSheet@Honeywell.com](mailto:SafetyDataSheet@Honeywell.com)

#### 1.4. Emergency telephone number

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Emergency telephone : +1-703-527-3887 (ChemTrec-Transport)  
number : +1-303-389-1414 (Medical)  
Country based Poison : see chapter 15.1  
Control Center

### SECTION 2: Hazards identification


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

##### REGULATION (EC) No 1272/2008

Corrosive to metals Category 1  
H290 May be corrosive to metals.  
Acute toxicity Category 4 - Inhalation  
H332 Harmful if inhaled.  
Skin corrosion Category 1B  
H314 Causes severe skin burns and eye damage.  
Skin sensitisation Category 1  
H317 May cause an allergic skin reaction.  
Specific target organ toxicity - single exposure Category 3 - Respiratory system  
H335 May cause respiratory irritation.  
Specific target organ toxicity - repeated exposure Category 2 - Oral  
H373 May cause damage to organs through prolonged or repeated exposure if swallowed.  
Long-term (chronic) aquatic hazard Category 3  
H412 Harmful to aquatic life with long lasting effects.

#### 2.2. Label elements

##### REGULATION (EC) No 1272/2008

Hazard pictograms : 

Signal word : Danger

Hazard statements : H290 May be corrosive to metals.  
H314 Causes severe skin burns and eye damage.  
H317 May cause an allergic skin reaction.  
H332 Harmful if inhaled.  
H335 May cause respiratory irritation.  
H373 May cause damage to organs through

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		H412	prolonged or repeated exposure if swallowed. Harmful to aquatic life with long lasting effects.
Precautionary statements	:	P234 P260	Keep only in original container. Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.
		P280	Wear protective gloves/protective clothing/eye protection/face protection.
		P301 + P330 + P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
		P302 + P352 P304 + P340	IF ON SKIN: Wash with plenty of water. IF INHALED: Remove person to fresh air and keep comfortable for breathing.
		P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
		P308 + P313	IF exposed or concerned: Get medical advice/ attention.

### 2.3. Other hazards

Causes burns. Results of PBT and vPvB assessment, see chapter 12.5.

## SECTION 3: Composition/information on ingredients

### 3.1. Substance

Chemical name	CAS-No. Index-No. REACH Registration Number EC-No.	Classification 1272/2008	Concentration	Remarks
Tin dichloride-2-hydrate	10025-69-1 231-868-0	Met. Corr. 1; H290 Acute Tox. 4; H332; Inhalation Skin Corr. 1B; H314 Skin Sens. 1; H317 STOT SE 3; H335; Respiratory system	100 %	

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		STOT RE 2; H373; Oral Aquatic Chronic 3; H412		
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### 3.2. Mixture

Not applicable

Occupational Exposure Limit(s), if available, are listed in Section 8.  
For the full text of the H-Statements mentioned in this Section, see Section 16.

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

#### *General advice:*

First aider needs to protect himself. Immediately take off contaminated clothing and rinse body with plenty of water. Show this safety data sheet to the doctor in attendance.

#### *Inhalation:*

Call a physician immediately. Remove to fresh air. If breathing is irregular or stopped, administer artificial respiration. Use oxygen as required, provided a qualified operator is present.

#### *Skin contact:*

Wash off immediately with plenty of water for at least 15 minutes. Take off contaminated clothing and shoes immediately. Wash contaminated clothing before re-use. Call a physician immediately.

#### *Eye contact:*

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Protect unharmed eye. Call a physician immediately.

#### *Ingestion:*

Do not induce vomiting without medical advice. If victim is fully conscious, give a cupful of water. Never give anything by mouth to an unconscious person. Call a physician immediately.

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

No data available

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

Treat symptomatically.

See Section 11 for more detailed information on health effects and symptoms.

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### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

*Suitable extinguishing media:*

Water spray  
Foam  
Carbon dioxide (CO<sub>2</sub>)  
Dry powder

*Extinguishing media which shall not be used for safety reasons:*

High volume water jet

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

In case of fire hazardous decomposition products may be produced such as:

Hydrogen chloride gas  
Tin oxide fumes.

#### 5.3. Advice for firefighters

Wear self-contained breathing apparatus and protective suit.  
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. The product itself does not burn.

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### SECTION 6: Accidental release measures

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

Use personal protective equipment. Keep people away from and upwind of spill/leak. In the case of dust or aerosol formation use respirator with an approved filter.

#### 6.2. Environmental precautions

Prevent further leakage or spillage if safe to do so. Discharge into the environment must be avoided. Do not flush into surface water or sanitary sewer system. Do not allow run-off from fire fighting to enter drains or water courses.

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

Use mechanical handling equipment.

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Pick for disposal in tightly closed containers

### 6.4. Reference to other sections

For personal protection see section 8.

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## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

*Advice on safe handling:*

Exhaust ventilation at the object is necessary. Do not breathe dust.

*Advice on protection against fire and explosion:*

Normal measures for preventive fire protection.

*Hygiene measures:*

Separate rooms are required for washing, showering and changing clothes. Keep working clothes separately. Remove and wash contaminated clothing before re-use. Wash hands before breaks and at the end of workday. When using do not eat or drink.

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

*Further information on storage conditions:*

Store in original container. Keep containers tightly closed in a cool, well-ventilated place.

### 7.3. Specific end use(s)

no additional data available

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**SECTION 8: Exposure controls/personal protection**

**8.1. Control parameters**

**Occupational exposure limits:**

Components	Basis / Value type	Value / Form of exposure	Exceeding Factor	Remarks
Tin dichloride-2-hydrate	EH40 WEL TWA	2 mg/m <sup>3</sup> as Sn		
Tin dichloride-2-hydrate	EH40 WEL STEL	4 mg/m <sup>3</sup> as Sn		
Tin dichloride-2-hydrate	EU ELV TWA	2 mg/m <sup>3</sup> as Sn		Indicative
Tin dichloride-2-hydrate	EH40 WEL STEL	4 mg/m <sup>3</sup> as Sn	15 minutes	
Tin dichloride-2-hydrate	EH40 WEL STEL	4 mg/m <sup>3</sup> as Sn	15 minutes	

TWA - Time weighted average  
STEL - Short term exposure limit

**DNEL/ PNEC-Values**

Component	End-use/impact	Exposure duration	Value	Exposure routes	Remarks
Tin dichloride-2-hydrate	Workers / Long-term systemic effects		8 mg/m <sup>3</sup>	Inhalation	
Tin dichloride-2-hydrate	Workers / Acute systemic effects		8 mg/m <sup>3</sup>	Inhalation	
Tin dichloride-2-hydrate	Workers / Long-term local effects		8 mg/m <sup>3</sup>	Inhalation	
Tin dichloride-2-hydrate	Workers / Acute local		8 mg/m <sup>3</sup>	Inhalation	

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	effects				
Tin dichloride-2-hydrate	Workers / Long-term systemic effects		0,11mg/kg bw/d	Skin contact	
Tin dichloride-2-hydrate	Workers / Acute systemic effects		0,11mg/kg bw/d	Skin contact	
Tin dichloride-2-hydrate	Workers / Long-term local effects		8 mg/cm2	Skin contact	
Tin dichloride-2-hydrate	Workers / Acute local effects		8 mg/cm2	Skin contact	
Tin dichloride-2-hydrate	Consumers / Long-term systemic effects		1,6 mg/m3	Inhalation	
Tin dichloride-2-hydrate	Consumers / Acute systemic effects		1,6 mg/m3	Inhalation	
Tin dichloride-2-hydrate	Consumers / Long-term local effects		1,6 mg/m3	Inhalation	
Tin dichloride-2-hydrate	Consumers / Acute local effects		0,023 mg/m3	Inhalation	
Tin dichloride-2-hydrate	Consumers / Long-term systemic effects		0,023mg/kg bw/d	Skin contact	
Tin dichloride-2-hydrate	Consumers / Acute systemic effects		0,28mg/kg bw/d	Skin contact	
Tin dichloride-2-hydrate	Consumers / Long-term local effects		1,6mg/kg bw/d	Skin contact	



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Tin dichloride-2-hydrate	Consumers / Acute local effects		1,6mg/kg bw/d	Skin contact	
Tin dichloride-2-hydrate	Consumers / Long-term systemic effects		0,0061mg/k g bw/d	Ingestion	
Tin dichloride-2-hydrate	Consumers / Acute systemic effects		5,97mg/kg bw/d	Ingestion	

Component	Environmental compartment / Value	Remarks
Tin dichloride-2-hydrate	Fresh water: 0,003 mg/l	Assessment factor: 10
Tin dichloride-2-hydrate	Marine water: 0,035 mg/l	
Tin dichloride-2-hydrate	Sewage treatment plant: 1,04 mg/l	
Tin dichloride-2-hydrate	Fresh water sediment: 58 mg/kg dw	
Tin dichloride-2-hydrate	Marine sediment: 5,8 mg/kg dw	Assessment factor: 10
Tin dichloride-2-hydrate	Soil: 0,068 mg/kg dw	Assessment factor: 100

**8.2. Exposure controls**

**Occupational exposure controls**

The Personal Protective Equipment must be in accordance with EN standards:respirator EN 136, 140, 149; safety glasses EN 166; protective suit: EN 340, 463, 468, 943-1, 943-2; gloves EN 374, 511; safety shoes EN-ISO 20345.  
Do not breathe dust.

**Engineering measures**

Use with local exhaust ventilation.  
acid resisting floor  
Emergency sprinkling nozzle

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### Personal protective equipment

#### *Respiratory protection:*

In the case of dust or aerosol formation use respirator with an approved filter.

#### *Hand protection:*

Glove material: Natural Latex

Break through time: > 480 min

Glove thickness: 0,6 mm

Lapren®706

Gloves must be inspected prior to use.

Replace when worn.

Remarks:Supplementary note: The specifications are based on information and tests from similar substances by analogy.

Due to varying conditions ( e.g.temperature or other strains) it must be considered that the usage of a chemical protective glove in practice may be much shorter than the permeation time determined in accordance with EN 374.

Since actual conditions of practical use often deviate from standardised conditions according EN 374 the glove manufacturer recommends to use the chemical protective glove in practice not longer than 50% of the recommended permeation time.

Manufacturer's directions for use should be observed because of great diversity of types .

Suitable gloves tested according EN 374 are supplied e.g. from KCL GmbH, D-36124 Eichenzell, Vertrieb@kcl.de

#### *Eye protection:*

Safety goggles

#### *Skin and body protection:*

Protective suit

### Environmental exposure controls

Handle in accordance with local environmental regulations and good industrial practices.

## SECTION 9: Physical and chemical properties

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

Physical state : solid

Colour : colourless

Odour : odourless

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molecular weight	:	225,65 g/mol
Melting point (decomposition)	:	37 - 38 °C
Boiling point/boiling range	:	Decomposes on heating.
Flammability	:	The product is not flammable.
Upper explosion limit	:	Not applicable
Lower explosion limit	:	Not applicable
Flash point	:	Not applicable
Auto-ignition temperature	:	Not applicable
Decomposition temperature	:	38 °C Decomposition temperature
pH	:	acidic (as aqueous solution)
Viscosity, kinematic	:	No data available
Water solubility	:	Decomposes in contact with water.
Partition coefficient: n- octanol/water	:	No data available
Vapour pressure	:	No data available
Density	:	2,71 g/cm <sup>3</sup> at 20 °C
Bulk density	:	ca. 1.300 kg/m <sup>3</sup>
Relative vapour density	:	No data available

### 9.2 Other Information

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Oxidizing properties	:	The substance or mixture is not classified as oxidizing.
Corrosive to metals	:	Corrosive to metals
Evaporation rate	:	No data available
Viscosity, dynamic	:	No data available

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### SECTION 10: Stability and reactivity

#### 10.1. Reactivity

Stable under recommended storage conditions.

#### 10.2. Chemical stability

38 °C  
Decomposition temperature

#### 10.3. Possibility of hazardous reactions

Hazardous polymerisation does not occur.

#### 10.4. Conditions to avoid

Protect from atmospheric moisture and water.  
Protect from exposure to air/oxygen.

#### 10.5. Incompatible materials

Incompatible with oxidizing agents.

#### 10.6. Hazardous decomposition products

Hydrogen chloride is produced under influence of moisture.  
In case of fire hazardous decomposition products may be produced such as:  
Hydrogen chloride gas  
Tin oxide fumes.

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### SECTION 11: Toxicological information

#### 11.1. Information on toxicological effects

*Acute oral toxicity:*

LD50

Species: Rat

Value: 2.270 mg/kg

*Acute dermal toxicity:*

No data available

*Acute inhalation toxicity:*

LC50

Species: Rat

Value: 2 mg/l

Exposure time: 4 h

Method: OECD Test Guideline 436

Test substance: Tin dichloride

*Skin irritation:*

Species: Rabbit

Result: Causes burns.

Method: OECD Test Guideline 404

*Eye irritation:*

No data available

*Respiratory or skin sensitisation:*

Conclusive and supporting classification (Ref: REACH Dossier - ECHA disseminated data)

*Repeated dose toxicity:*

Note: Conclusive and supporting classification (Ref: REACH Dossier - ECHA disseminated data)

*Carcinogenicity:*

Note: Not classified due to data which are conclusive although insufficient for classification.

*Germ cell mutagenicity:*

Test Method: In vitro gene mutation study in mammalian cells

Metabolic activation: with and without metabolic activation

Result: negative

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Method: OECD Test Guideline 476

*Reproductive toxicity:*

Remarks: Not classified due to data which are conclusive although insufficient for classification.

*Aspiration hazard:*

No data available

### 11.2. Information on other hazards

Endocrine disrupting properties

No data available

*Other information:*

No data available

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## SECTION 12: Ecological information

### 12.1. Toxicity

*Toxicity to fish:*

No data available

*Toxicity to aquatic plants:*

No data available

*Toxicity to Microorganisms:*

No data available

*Toxicity to aquatic invertebrates:*

No data available

### 12.2. Persistence and degradability

*Biodegradability:*

No data available

*Biodegradability:*

The methods for determining biodegradability are not applicable to inorganic substances.

### 12.3. Bioaccumulative potential

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No data available

### 12.4. Mobility in soil

No data available

### 12.5. Results of PBT and vPvB assessment

No data available

### 12.6. Endocrine disrupting properties

No data available

### 12.7. Other adverse effects

Product in presence of water can be quickly hydrolysed.

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## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

*Product:*

Dispose according to legal requirements.

*Packaging:*

Legal requirements are to be considered in regard of reuse or disposal of used packaging materials

*Further information:*

Provisions relating to waste:

EC Directive 2006/12/EC; 2008/98/EEC

Regulation No. 1013/2006

For personal protection see section 8.

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## SECTION 14: Transport information

### 14.1 UN number

ADR/RID:3260

IMDG:3260

IATA:3260

### 14.2 UN proper shipping name

ADR/RID:CORROSIVE SOLID, ACIDIC, INORGANIC, N.O.S.(TIN DICHLORIDE)

IMDG:CORROSIVE SOLID, ACIDIC, INORGANIC, N.O.S.(TIN DICHLORIDE)

IATA:Corrosive solid, acidic, inorganic, n.o.s.(Tin dichloride)

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**14.3 Transport hazard class(es)**

ADR/RID: 8                                  IMDG: 8                                  IATA: 8

**14.4 Packaging group**

ADR/RID: III                                  IMDG: III                                  IATA: III

**14.5 Environmental hazards**

ADR/RID: no                                  Marine pollutant: no

**14.6 Special precautions for user**

IMDG Code segregation group (SGG1) – ACIDS,

**14.7 Maritime transport in bulk according to IMO instruments**

No data available

**SECTION 15: Regulatory information**

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

Basis	Value	Remarks
Substances of very high concern (SVHC)		This product does not contain substances of very high concern according to Regulation (EC) No Article 57 above the respective regulatory 1907/2006 (REACH), concentration limit of ≥ 0.1 % (w/w).

**Poison Control Center**

Country	Phone Number
Austria	+4314064343
Belgium	070 245245
Bulgaria	(+)35929154233
Croatia	(+3851)23-48-342
Cyprus	+357 2240 5611
Czech Republic	+420224919293; +420224915402
Denmark	82121212

Country	Phone Number
Liechtenstein	+41 442515151
Lithuania	+370532362052
Luxembourg	070245245; (+352)80002-5500
Malta	+356 2395 2000
Netherlands	030-2748888
Norway	22591300
Poland	+48 42 25 38 400



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Estonia	16662; (+372)6269390
Finland	9471977
France	+33(0)145425959
Greece	+30 210 779 3777
Hungary	(+36-80)201-199
Iceland	5432222
Ireland	+353(1)8092166
Italy	0382 24444
Germany	Berlin : 030/19240
	Bonn : 0228/19240
	Erfurt : 0361/730730
	Freiburg : 0761/19240
	Göttingen : 0551/19240
	Homburg : 06841/19240
	Mainz : 06131/19240
Munich : 089/19240	
Latvia	+37167042473

Portugal	800250250
Romania	+40 21 318 3606
Slovakia (NTIC)	+421 2 54 774 166
Slovenia	+386 1 400 6051
Spain	+34915620420
Sweden	112 (begär Giftinformation);+46104566786
Switzerland	145
United Kingdom	(+44) 844 892 0111

**Other inventory information**

US. Toxic Substances Control Act  
On TSCA Inventory

Australia. Inventory of Industrial Chemicals (AIIC), as amended  
On the inventory, or in compliance with the inventory

Canada. Canadian Environmental Protection Act (CEPA). Domestic Substances List (DSL)  
All components of this product are on the Canadian DSL

Japan. Kashin-Hou Law List  
On the inventory, or in compliance with the inventory

Korea. Existing Chemicals Inventory (KECI)  
On the inventory, or in compliance with the inventory

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Philippines. Inventory of Chemicals and Chemical Substances (PICCS)  
On the inventory, or in compliance with the inventory

China. Inventory of Existing Chemical Substances (IECSC)  
On the inventory, or in compliance with the inventory

New Zealand. Inventory of Chemicals (NZIoC), as published by ERMA New Zealand  
On the inventory, or in compliance with the inventory

Taiwan Chemical Substance Inventory (TCSI)  
On the inventory, or in compliance with the inventory

### 15.2 Chemical safety assessment

A Chemical Safety Assessment has not been carried out.

## SECTION 16: Other information

### Text of H-statements referred to under heading 3

Tin dichloride-2-hydrate : H290 May be corrosive to metals.  
H332 Harmful if inhaled.  
H314 Causes severe skin burns and eye damage.  
H317 May cause an allergic skin reaction.  
H335 May cause respiratory irritation.  
H373 May cause damage to organs through prolonged or repeated exposure if swallowed.  
H412 Harmful to aquatic life with long lasting effects.

### Further information

All directives and regulations refer to amended versions.  
Vertical lines in the left hand margin indicate a relevant amendment from the previous version.

Abbreviations:

EC European Community

CAS Chemical Abstracts Service

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DNEL Derived no effect level  
PNEC Predicted no effect level  
vPvB Very persistent and very bioaccumulative substance  
PBT Persistent, bioaccumulative und toxic substance

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. Final determination of suitability of any material is the sole responsibility of the user.

This information should not constitute a guarantee for any specific product properties.

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