

Tin(II) chloride dihydrate

31669-1KG

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
---------	---	--

Telephone :
For further information,
please contact: : SafetyDataSheet@Honeywell.com

1.4. Emergency telephone number

Tin(II) chloride dihydrate

31669-1KG

Version 1.4

Revision Date 17.12.2022

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

Tin(II) chloride dihydrate

31669-1KG

Version 1.4

Revision Date 17.12.2022

		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 %	

Tin(II) chloride dihydrate

31669-1KG

Version 1.4

Revision Date 17.12.2022

		STOT RE 2; H373; Oral Aquatic Chronic 3; H412		
--	--	--	--	--

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.

Tin(II) chloride dihydrate

31669-1KG

Version 1.4

Revision Date 17.12.2022

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:

Water spray
Foam
Carbon dioxide (CO₂)
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.

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.

Tin(II) chloride dihydrate

31669-1KG

Version 1.4

Revision Date 17.12.2022

Pick for disposal in tightly closed containers

6.4. Reference to other sections

For personal protection see section 8.

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

Tin(II) chloride dihydrate

31669-1KG

Version 1.4

Revision Date 17.12.2022

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 ³ as Sn		
Tin dichloride-2-hydrate	EH40 WEL STEL	4 mg/m ³ as Sn		
Tin dichloride-2-hydrate	EU ELV TWA	2 mg/m ³ as Sn		Indicative
Tin dichloride-2-hydrate	EH40 WEL STEL	4 mg/m ³ as Sn	15 minutes	
Tin dichloride-2-hydrate	EH40 WEL STEL	4 mg/m ³ 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 ³	Inhalation	
Tin dichloride-2-hydrate	Workers / Acute systemic effects		8 mg/m ³	Inhalation	
Tin dichloride-2-hydrate	Workers / Long-term local effects		8 mg/m ³	Inhalation	
Tin dichloride-2-hydrate	Workers / Acute local		8 mg/m ³	Inhalation	

Tin(II) chloride dihydrate

31669-1KG

Version 1.4

Revision Date 17.12.2022

	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	

Tin(II) chloride dihydrate

31669-1KG

Version 1.4

Revision Date 17.12.2022

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

Tin(II) chloride dihydrate

31669-1KG

Version 1.4

Revision Date 17.12.2022

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

Tin(II) chloride dihydrate

31669-1KG

Version 1.4

Revision Date 17.12.2022

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 ³ at 20 °C
Bulk density	:	ca. 1.300 kg/m ³
Relative vapour density	:	No data available

9.2 Other Information

Tin(II) chloride dihydrate

31669-1KG

Version 1.4

Revision Date 17.12.2022

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

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.

Tin(II) chloride dihydrate

31669-1KG

Version 1.4

Revision Date 17.12.2022

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

Tin(II) chloride dihydrate

31669-1KG

Version 1.4

Revision Date 17.12.2022

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

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

Tin(II) chloride dihydrate

31669-1KG

Version 1.4

Revision Date 17.12.2022

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.

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.

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)

Tin(II) chloride dihydrate

31669-1KG

Version 1.4

Revision Date 17.12.2022

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

Tin(II) chloride dihydrate

31669-1KG

Version 1.4

Revision Date 17.12.2022

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

Tin(II) chloride dihydrate

31669-1KG

Version 1.4

Revision Date 17.12.2022

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.
