

## SAFETY DATA SHEET

### SECTION 1 : IDENTIFICATION OF THE SUBSTANCE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier:

**Iodine chloride**

IUPAC name: Iodine chloride

CAS number: 7790-99-0

EC number: 232-236-7

Registration number is not available for this substance since this substance or its use is exempted from registration based on Article 2 of REACH regulation, or registration is not necessary due to the annual tonnage band, or the registration is scheduled to a later registration date.

1.2. Relevant identified uses of the substance and uses advised against:

Reagent used in organic chemical synthesis, iodine source for industrial use.

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

**Distributor:**

**VINYL Kft.**

3524 MISKOLC, Adler Károly utca 19.

Tel.: 003646432633

1.3.1. Responsible person: -

E-mail: [ehsq@vinyl.hu](mailto:ehsq@vinyl.hu)

1.4. Emergency telephone number: 003646432633

### SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance:

Classification according to Regulation 1272/2008/EC (CLP):

Acute toxicity 2 (oral) – H300

Acute toxicity 3 (dermal) – H311

Skin corrosion 1A – H314

Specific target organ toxicity (STOT) – single exposure 3 – H335

**Warning H statements:**

**H300** – Fatal if swallowed.

**H311** – Toxic in contact with skin.

**H314** – Causes severe skin burns and eye damage.

**H335** – May cause respiratory irritation.

2.2. Label elements:

IUPAC name: Iodine chloride

CAS number: 7790-99-0

EC number: 232-236-7

GHS05



GHS06



DANGER

**Warning H statements:****H300** – Fatal if swallowed.**H311** – Toxic in contact with skin.**H314** – Causes severe skin burns and eye damage.**H335** – May cause respiratory irritation.**Precautionary P statements:****P260** – Do not breathe dust/ mist/vapours/spray.**P264** – Wash thoroughly after handling.**P280** – Wear protective gloves/protective clothing/eye protection/face protection.**P301 + P330 + P331** – IF SWALLOWED: rinse mouth. Do NOT induce vomiting.**P311** – Call a POISON CENTER/ doctor.**P303 + P361 + P353** – IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower.**P305 + P351 + P338 + P310** – 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/doctor.**P304 + P340** – IF INHALED: Remove person to fresh air and keep comfortable for breathing.**P405** – Store locked up.**P501** – Dispose of contents/container as hazardous waste, in accordance with the relevant regulations.2.3. Other hazards:

No other known specific hazards for human or environment.

Results of PBT and vPvB assessment not applicable.

**SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS**3.1. Substance:

Description: reagent used in organic chemical synthesis, iodine source for industrial use.

IUPAC name: Iodine chloride, Chlorine iodine, Iodine Monochloride

CAS number: 7790-99-0

EC number: 232-236-7

Formula: ClI

Molar mass: 162,35 g/mol

Purity: 100 %

**SECTION 4: FIRST AID MEASURES**4.1. Description of first aid measures:

General: immediately remove contaminated clothing and shoes. In case of exposition, obtain immediate medical help.

IN CASE OF INGESTION:

Measures:

- Obtain immediate medical attention and show him the label.
- Place the victim into comfortable position.
- Do not give the victim anything orally, and do not induce vomiting if the victim is unconscious.

IN CASE OF INHALATION:

Measures:

- Take the victim into fresh air, loosen his clothes and let him rest.
- If necessary administer artificial respiration.
- Do not administer mouth-to-mouth resuscitation.
- Obtain immediate medical attention and show him the safety data sheet or the label.

IN CASE OF SKIN CONTACT:

Measures:

- Remove the contaminated clothes.
- Wash the skin surface with plenty of water and soap (for 15 minutes).
- Obtain medical help.

IN CASE OF EYE CONTACT:

Measures:

- In case of contact with eyes flush with plenty of flowing water holding eyelids apart and moving the eyeballs (for at least 15 minutes).
- Obtain immediate medical help.

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:

No data available.

**SECTION 5: FIRE-FIGHTING MEASURES**

- 5.1. Extinguishing media:  
5.1.1. Suitable extinguishing media:  
Water fog, foam, dry chemical (extinguishing powder), carbon dioxide.  
Choose extinguishing media depending on surrounding fire.  
5.1.2. Unsuitable extinguishing media:  
Do not use full water jet.
- 5.2. Special hazards arising from the substance or mixture:  
In case of fire, hydrogen iodide and hydrogen chloride gas may be formed, the inhalation of such combustion products can have serious adverse effects on health.
- 5.3. Advise for fire fighters:  
Wear full protective clothing and self-contained breathing apparatus.  
The contaminated extinguishing water should be collected separately, do not enter into surface- or groundwaters.

**SECTION 6: ACCIDENTAL RELEASE MEASURES**

- 6.1. Personal precautions, protective equipment and emergency procedures:  
6.1.1. For non-emergency personnel:  
Keep unprotected people away, allow only well trained experts wearing suitable protective clothing to abide in the field of accident.  
6.1.2. For emergency responders:  
Avoid contact with skin, eyes and clothing.  
Wear appropriate personal protective equipment.  
Remove the ignition sources.  
Ensure adequate ventilation.
- 6.2. Environmental precautions:  
Dispose of spillage and waste (product/packaging) in accordance with all applicable environmental laws. Do not allow the substance and the resulting waste to enter sewers/soil/surface or ground water. Notify the respective authorities in accordance with local law in the case of environmental pollution immediately.
- 6.3. Methods and material for containment and cleaning up:  
If the spilled material is liquid: collect with absorbent (e.g. sand, silica gel, acid binder, universal binder), then place into a suitable, closed, properly labelled chemical waste container for removal/disposal.  
If the spilled material is solid: collect mechanically, then place the collected waste into appropriate, labeled, closable hazardous waste container till proper removal/disposal.  
During the collection, placement, disposal of the waste, wear appropriate individual protective equipments.
- 6.4. Reference to other sections:  
For further and detailed information see section 8 and 13.

**SECTION 7: HANDLING AND STORAGE**

- 7.1. Precautions for safe handling:  
Observe conventional hygiene precautions.  
Observe the pertinent regulations on industrial safety and basic hygiene rules.  
Avoid contact with skin, eyes and clothing.  
Do not eat, drink or smoke at the workplace.  
Technical measures:  
Ensure adequate ventilation, or if necessary, local exhaust.  
Precautions against fire and explosion:  
General measures of preventive fire protection.
- 7.2. Conditions for safe storage, including any incompatibilities:  
Technical measures and storage condition:  
Keep in original, closed and appropriately labelled container.  
The place of storage has to be properly ventilated and cleanable.  
Store in cool and dry place.  
Incompatible materials: keep away from organic materials and water.  
Packaging material: no special prescriptions.
- 7.3. Specific end use(s):  
No specific instructions available.

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

- 8.1. Control parameters:  
  
Occupational exposure limit values:  
The substance is not regulated with exposure limit value.

DNEL		Routes of exposure	Exposure frequency	Remarks:
Worker	Consumer			
no data available	no data available	Dermal	Short term (acute) Long term (repeated)	no data available
no data available	no data available	Inhalative	Short term (acute) Long term (repeated)	no data available
no data available	no data available	Oral	Short term (acute) Long term (repeated)	no data available

PNEC			Exposure frequency:	Remarks:
Water	Soil	Air		
no data available	no data available	no data available	Short term (single use) Long term (continuous)	no data available
no data available	no data available	no data available	Short term (single use) Long term (continuous)	no data available
no data available	no data available	no data available	Short term (single use) Long term (continuous)	no data available

8.2. Exposure controls:

In case of a hazardous material with no controlled concentration limit it is the employer's duty to keep concentration levels down to a minimum achievable by existing scientific and technological means, where the hazardous substance poses no harm to workers.

## 8.2.1 Appropriate engineering controls:

In pursuance of work is proper foresight needed to avoid spilling/leaking onto clothes and floors and to avoid contact with eyes and skin.

Ensure adequate ventilation.

## 8.2.2. Individual protection measures, such as personal protective equipment:

1. Eye/face protection: use appropriate protective glasses (EN 166).
2. Skin protection:
  - a. Hand protection: use appropriate protective gloves (nitrile rubber, PVC, EN 374). Dispose of contaminated gloves, do not reuse them.
  - b. Other: use appropriate protective clothes.
3. Respiratory protection: in case of insufficient ventilation use appropriate respiratory protective device.
4. Thermal hazard: None known.

## 8.2.3. Environmental exposure controls:

No special measures required.

**The requirements detailed in Section 8 assume skilled work under normal conditions and usage of the product for appropriate aims. If conditions differ from normal or work is carried out under extreme conditions an expert's advice should be sought out before deciding upon further protective measures.**

**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**9.1. Information on basic physical and chemical properties:

Parameter	Test method:	Remarks:
1. <b>Appearance:</b>		reddish brown, solid at room temperature, liquid above room temperature
2. <b>Odour:</b>		characteristic, iodic
3. Odour threshold:		no data available
4. pH value:		no data available
5. Melting point/ freezing point:		app. 26 °C
6. Initial boiling point/boiling range:		app. 97 °C (decomposition)
7. Flash point:		no data available
8. Evaporation rate:		no data available
9. Flammability (solid, gas):		no data available
10. Upper/lower flammability or explosive limits:		no data available
11. Vapour pressure:		no data available
12 Vapour density:		no data available
13. Relative density:		no data available
14. Solubility(ies):		hydrolyses in water

15. Partition coefficient: n-octanol/water: no data available  
 16. Self-ignition temperature: no data available  
 17. Degradation temperature: no data available  
 18. Viscosity: no data available  
 19. Explosive properties: no data available  
 20. Oxidizing properties: no data available

9.2. Other information:Density: 3,1 g/cm<sup>3</sup>**SECTION 10: STABILITY AND REACTIVITY**10.1. Reactivity:

Decomposes (hydrolyses) in contact with water. Reacts violently with organic materials.

10.2. Chemical stability:

Decomposes in contact with water or air humidity.

10.3. Possibility of hazardous reactions:

Reacts violently with organic materials.

10.4. Conditions to avoid:

Protect from heat and moisture.

10.5. Incompatible materials:

Water, organic materials.

10.6. Hazardous decomposition products:

When heated or in contact with moisture, toxic and corrosive vapours (hydrogen chloride and hydrogen iodide) may be formed.

**SECTION 11: TOXICOLOGICAL INFORMATION**11.1. Information on toxicological effects:

Acute toxicity: fatal if swallowed. Toxic in contact with skin.

Skin corrosion/irritation: causes severe skin burns and eye damage.

Serious eye damage/eye irritation: none known.

Respiratory or skin sensitisation: none known.

Germ cell mutagenicity: none known.

Carcinogenicity: none known.

Reproductive toxicity: none known.

STOT-single exposure: may cause respiratory irritation.

STOT-repeated exposure: none known.

Aspiration hazard: none known.

## 11.1.1. For substances subject to registration, brief summaries of the information derived from the test conducted:

No data available.

## 11.1.2. Relevant toxicological properties of the hazardous substances:

No data available.

## 11.1.3. Information on likely routes of exposure:

Ingestion, inhalation, skin contact, eye contact.

## 11.1.4. Symptoms related to the physical, chemical and toxicological characteristics:

No data available.

## 11.1.5. Delayed and immediate effects as well as chronic effects from short and long-term exposure:

Fatal if swallowed.

Toxic in contact with skin.

Causes severe skin burns and eye damage.

May cause respiratory irritation.

## 11.1.6. Interactive effects:

No data available.

## 11.1.7. Absence of specific data:

No information.

## 11.1.8. Other information:

No data available.

**SECTION 12: ECOLOGICAL INFORMATION**12.1. Toxicity:

No data available.

12.2. Persistence and degradability:

No data available.

12.3. Bioaccumulation potential:

No data available.

12.4. Mobility in soil:

No data available.

**VINYL Kft**

- 12.5. Results of PBT and vPvB assessment:  
Not applicable, as the substance is inorganic.
- 12.6. Other adverse effects:  
Do not discharge the substance into surface- and ground waters, or soil.

### SECTION 13: DISPOSAL CONSIDERATIONS

- 13.1. Waste treatment methods:  
Disposal according to the local regulations.
- 13.1.1. Information regarding the disposal of the product:  
No special recommendation from the manufacturer.  
Do not empty into drains.  
European Waste Code:  
No appropriate EWC code can be given for the substance, since the identification of the proper code can be done with the method of use defined by the user of the substance. The European waste code number has to be determined after a discussion with a specialist dealing with waste disposal.
- 13.1.2. Information regarding the disposal of the packaging:  
Dispose according to the relevant regulations.  
The uncleaned packaging has to be disposed in the same manner as the substance.
- 13.1.3. Physical/chemical properties that may affect waste treatment options shall be specified:  
None known.
- 13.1.4. Sewage disposal:  
None known.
- 13.1.5. Special precautions for any recommended waste treatment:  
No data available.

### SECTION 14: TRANSPORT INFORMATION

- 14.1. UN Number:  
Solid substance: 1792.
- 14.2. UN proper shipping name:  
IODINE MONOCHLORIDE, SOLID.
- 14.3. Transport hazard class(es):  
8 Classification code: C2
- 14.4. Packaging group:  
II
- 14.5. Environmental hazard:  
No relevant information available.
- 14.6. Special precautions for user:  
No relevant information available.
- 14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code:  
Not applicable.

### SECTION 15: REGULATORY INFORMATION

- 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture:  
REGULATION (EC) No 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC  
  
REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006  
  
Commission Regulation (EU) 2015/830 of 28 May 2015 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)
- 15.2. Chemical safety assessment: no information available.

## SECTION 16: OTHER INFORMATION

Information regarding the revision of the safety data sheet: none.

Full text of the abbreviations in the safety data sheet:

DNEL: Derived no effect level. PNEC: Predicted no effect concentration. CMR effects: carcinogenicity, mutagenicity and toxicity for reproduction. PBT: Persistent, bioaccumulative and toxic. vPvB: Very Persistent, Very Bioaccumulative. n.d.: not defined. n.a.: not applicable.

Key literature references and sources for data: safety data sheet (dated 14. 11. 2016, version 1) issued by the distributor.

Relevant H-Phrases (number and full text) of Section 2 and 3:

**H300** – Fatal if swallowed.

**H311** – Toxic in contact with skin.

**H314** – Causes severe skin burns and eye damage.

**H335** – May cause respiratory irritation.

Training advice: no data available.

This safety data sheet had been prepared on the basis of information provided by the manufacturer/supplier and conform to the relevant regulations.

The information, data and recommendations contained herein are provided in good faith, obtained from reliable sources and believed to be true and accurate as of the date issued; however, no representation is made as to the comprehensiveness of the information. The SDS shall be used only as a guide for handling the product; in the course of handling and using the product other considerations may arise or be required.

Users are cautioned to determine the appropriateness and applicability of the above information to their particular circumstances and purposes and assume all risk associated with the use of this product. It is the responsibility of the user to fully comply with local, national and international regulations concerning the use of this product.

Safety data sheet was prepared by: ToxInfo Kft. [msds-europe.com](http://msds-europe.com)

Professional help regarding the explanation of the safety data sheet:

+36 70 335 8480;

[info@msds-europe.com](mailto:info@msds-europe.com)