

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### Chloral hydrate

Revision: 06.03.2025

Product code: AC15.03085

Page 1 of 11

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

### 1.1. Product identifier

Chloral hydrate

UFI: HWUT-C2HW-W006-V1P3

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

#### Use of the substance/mixture

Reagents and laboratory chemicals

Only for laboratory and analysis purposes.

#### Uses advised against

Do not use for private purposes (household).

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

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

Company name: AnalytiChem Services, Unipessoal, Lda  
Street: Rua de Júlio Dinis 676 7º  
Place: P-4050-320 Porto  
Telephone: +351 226002917  
E-mail: info@analytichem.com  
Contact person: SDS service department  
E-mail: SDS@analytichem.com  
Internet: www.analytichem.com  
Responsible Department: SDS service department

#### Supplier or manufacturer details

Company name: AnalytiChem GmbH  
Street: Stempelstraße 6  
Place: D-47167 Duisburg  
Telephone: 0203/5194-0  
E-mail: info@analytichem.de  
Contact person: SDS service department  
E-mail: SDS@analytichem.com  
Internet: www.analytichem.de  
Responsible Department: AnalytiChem  
EU-Belgium: AnalytiChem Belgium, Industriezone "De Arend" 2, 8210 Zedelgem, Belgium, +32 50 28 83 20  
EU-Germany: AnalytiChem Germany, Stempelstrasse 6, 47167 Duisburg, Germany, +49 203 51 94 – 200  
EU-Netherlands: AnalytiChem Netherlands, Communicatieweg 7, 3641 SG Mijdrecht, The Netherlands, +31 297 286848  
UK: AnalytiChem UK, Unit 7 Launton Business Center, Murdock Road, Bicester, OX26 4XB, England, +44 1869 355 500  
USA: AnalytiChem USA, 227 China Road, Winslow, Maine, 04901, United States, +1 800-244-8378  
Canada: AnalytiChem Canada, 21800 Clark Graham Avenue, Baie d'Urfe, H9X 4B6, Canada, +1 514-457-0701  
Australia: ORE Research & Exploration Pty Ltd, 37A Hosie Street, Bayswater North, 3153, Australia, +61 3 9729 0333  
+353 1 901 4670 (CHEMTREC)

### 1.4. Emergency telephone number:

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**Chloral hydrate**

Revision: 06.03.2025

Product code: AC15.03085

Page 2 of 11

**Further Information**

This product is a mixture. REACH Registration Number see section 3.

**SECTION 2: Hazards identification****2.1. Classification of the substance or mixture****Regulation (EC) No 1272/2008**

Acute Tox. 4; H302

Full text of hazard statements: see SECTION 16.

**2.2. Label elements****Regulation (EC) No 1272/2008****Hazard components for labelling**

chloral hydrate

**Signal word:** Warning**Pictograms:****Hazard statements**

H302 Harmful if swallowed.

**Precautionary statements**

P264 Wash hands and face thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

P301+P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.

P330 Rinse mouth.

P501 Dispose of contents/container to hazardous or special waste collection point.

**2.3. Other hazards**

No data available

**SECTION 3: Composition/information on ingredients****3.2. Mixtures****Chemical characterization**

Mixtures in aqueous solution

**Relevant ingredients**

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification (Regulation (EC) No 1272/2008)			
302-17-0	chloral hydrate			5 - < 10 %
	206-117-5	605-014-00-6	01-2120117773-57	
	Acute Tox. 3, Skin Irrit. 2, Eye Irrit. 2; H301 H315 H319			

Full text of H and EUH statements: see section 16.

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### Chloral hydrate

Revision: 06.03.2025

Product code: AC15.03085

Page 3 of 11

#### Specific Conc. Limits, M-factors and ATE

CAS No	EC No	Chemical name	Quantity
		Specific Conc. Limits, M-factors and ATE	
302-17-0	206-117-5	chloral hydrate	5 - < 10 %
		dermal: LD50 = 3030 mg/kg; oral: LD50 = 1265 mg/kg	

#### Further Information

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

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

#### General information

Self-protection of the first aider

#### After inhalation

Provide fresh air.  
If breathing is irregular or stopped, administer artificial respiration.  
Call a physician immediately.

#### After contact with skin

Wash immediately with: Water  
Take off immediately all contaminated clothing and wash it before reuse.  
Call a physician immediately.

#### After contact with eyes

Rinse immediately carefully and thoroughly with eye-bath or water. In case of eye irritation consult an ophthalmologist.

#### After ingestion

Rinse mouth immediately and drink plenty of water.  
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

No data available

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

#### Suitable extinguishing media

Co-ordinate fire-fighting measures to the fire surroundings.

#### Unsuitable extinguishing media

no restriction

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

Non-combustible liquids  
Hazardous combustion products

### 5.3. Advice for firefighters

In case of fire: Wear self-contained breathing apparatus.

#### Additional information

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.  
Move undamaged containers from immediate hazard area if it can be done safely.  
Use water spray jet to protect personnel and to cool endangered containers.

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### Chloral hydrate

Revision: 06.03.2025

Product code: AC15.03085

Page 4 of 11

## SECTION 6: Accidental release measures

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

#### General advice

Do not breathe vapour/aerosol.

#### For non-emergency personnel

Provide adequate ventilation.

Use personal protection equipment.

Avoid contact with skin, eyes and clothes.

Remove persons to safety.

Emergency procedures

Consult an expert

Do not breathe dust/fume/gas/mist/vapours/spray.

#### For emergency responders

Precautionary statements For emergency responders : Personal protection equipment: see section 8

### 6.2. Environmental precautions

Do not allow to enter into surface water or drains.

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

#### For containment

Cover drains.

Prevent spread over a wide area (e.g. by containment or oil barriers).

Collect in closed and suitable containers for disposal.

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents).

#### For cleaning up

Clean contaminated articles and floor according to the environmental legislation.

#### Other information

Provide adequate ventilation.

Do not breathe dust/fume/gas/mist/vapours/spray.

Wear breathing apparatus if exposed to vapours/dusts/aerosols.

### 6.4. Reference to other sections

Safe handling: see section 7

Personal protection equipment: see section 8

Disposal: see section 13

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

#### Advice on safe handling

Read label before use. Handle and open container with care.

When using do not eat, drink, smoke, sniff. Use personal protection equipment.

Provide adequate ventilation. Avoid contact with skin, eyes and clothes.

Do not breathe vapour/aerosol.

Use extractor hood (laboratory).

#### Advice on protection against fire and explosion

Usual measures for fire prevention.

#### Advice on general occupational hygiene

Keep away from food, drink and animal feedingstuffs. Remove contaminated, saturated clothing immediately.

Draw up and observe skin protection programme. Wash hands and face before breaks and after work and take a shower if necessary. When using do not eat or drink. Avoid: aerosol or mist formation Do not breathe vapour/aerosol.

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### Chloral hydrate

Revision: 06.03.2025

Product code: AC15.03085

Page 5 of 11

#### Further information on handling

- Draw up and observe skin protection programme.
- Wash hands and face before breaks and after work and take a shower if necessary.
- Take off immediately all contaminated clothing and wash it before reuse.

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

##### Requirements for storage rooms and vessels

Store in a place accessible by authorized persons only. Store in a well-ventilated place. Keep container tightly closed.

##### Hints on joint storage

TRGS 510

##### Further information on storage conditions

Store in a dry place.

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

Laboratory chemicals

## SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

##### DNEL/DMEL values

CAS No	Substance	Exposure route	Effect	Value
	DNEL type			
302-17-0	chloral hydrate			
Worker DNEL, long-term		inhalation	systemic	1,716 mg/m <sup>3</sup>
Worker DNEL, long-term		dermal	systemic	0,973 mg/kg bw/day
Consumer DNEL, long-term		inhalation	systemic	0,423 mg/m <sup>3</sup>
Consumer DNEL, long-term		dermal	systemic	0,487 mg/kg bw/day
Consumer DNEL, long-term		oral	systemic	0,243 mg/kg bw/day

##### PNEC values

CAS No	Substance	Value
	Environmental compartment	
302-17-0	chloral hydrate	
Freshwater		0,115 mg/l
Freshwater (intermittent releases)		0,115 mg/l
Marine water		0,011 mg/l
Freshwater sediment		0,09 mg/kg
Marine sediment		0,009 mg/kg
Micro-organisms in sewage treatment plants (STP)		7,9 mg/l
Soil		0,02 mg/kg

#### 8.2. Exposure controls

##### Appropriate engineering controls

Technical measures and the application of suitable work processes have priority over personal protection equipment.

If handled uncovered, arrangements with local exhaust ventilation have to be used.

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### Chloral hydrate

Revision: 06.03.2025

Product code: AC15.03085

Page 6 of 11

#### Individual protection measures, such as personal protective equipment

##### Eye/face protection

goggles

##### Hand protection

When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

Protective gloves are recommended Company KCL GmbH, D-36124 Eichenzell, email: vertrieb@kcl.de With specification (test according to EN374):

##### By long-term hand contact

Trade name/designation: KCL 741 Dermatril® L

Recommended material: NBR (Nitrile rubber) 0,11 mm

Wearing time with permanent contact: > 480 min

##### By short-term hand contact

Trade name/designation: KCL 741 Dermatril® L

Recommended material: NBR (Nitrile rubber) 0,11 mm

Wearing time with occasional contact (splashes): > 480 min

The breakthrough times stated above were determined by KCL in laboratory tests acc. to EN374 with samples of the recommended glove types. This recommendation applies only to the product stated in the safety data sheet<(>,<>) supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de).

##### Skin protection

Wear suitable protective clothing. Take off immediately all contaminated clothing.

Wash hands before breaks and after work.

The choice of body protection depends on the concentration and quantity of hazardous substances. The chemical resistance of protective agents must be clarified with their suppliers.

##### Respiratory protection

Wear breathing apparatus if exposed to vapours/dusts/aerosols.

The entrepreneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer. These measures have to be properly documented.

##### Thermal hazards

No data available

##### Environmental exposure controls

Do not allow to enter into surface water or drains.

## SECTION 9: Physical and chemical properties

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

Physical state:	Liquid
Colour:	colourless
Odour:	No data available
Odour threshold:	No data available
Melting point/freezing point:	No data available

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### Chloral hydrate

Revision: 06.03.2025

Product code: AC15.03085

Page 7 of 11

Boiling point or initial boiling point and boiling range:	No data available
Flammability:	No data available
Lower explosion limits:	No data available
Upper explosion limits:	No data available
Flash point:	No data available
Auto-ignition temperature:	No data available
Decomposition temperature:	No data available
pH-Value:	5,0
Viscosity / kinematic:	No data available
Water solubility:	completely miscible
Solubility in other solvents	
No data available	
Dissolution rate:	No data available
Partition coefficient n-octanol/water:	No data available
Dispersion stability:	No data available
Vapour pressure:	No data available
Vapour pressure:	No data available
Density (at 20 °C):	1,026061 g/cm <sup>3</sup>
Relative density:	No data available
Bulk density:	No data available
Relative vapour density:	No data available
Particle characteristics:	No data available

### 9.2. Other information

#### Information with regard to physical hazard classes

Explosive properties	
No data available	
Sustained combustibility:	No data available
Self-ignition temperature	
Solid:	No data available
Gas:	No data available
Oxidizing properties	
Oxidizing	

#### Other safety characteristics

Evaporation rate:	No data available
Solvent separation test:	No data available
Solvent content:	0
Solid content:	0
Sublimation point:	No data available
Softening point:	No data available
Pour point:	No data available
No data available:	
Viscosity / dynamic:	No data available
Flow time:	No data available

#### Further Information

No data available

### SECTION 10: Stability and reactivity

#### 10.1. Reactivity

No data available

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### Chloral hydrate

Revision: 06.03.2025

Product code: AC15.03085

Page 8 of 11

#### 10.2. Chemical stability

The product is stable under storage at normal ambient temperatures.

#### 10.3. Possibility of hazardous reactions

No data available

#### 10.4. Conditions to avoid

No data available

#### 10.5. Incompatible materials

No data available

#### 10.6. Hazardous decomposition products

No data available

#### **Further information**

No data available

## SECTION 11: Toxicological information

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

##### **Toxicokinetics, metabolism and distribution**

There are no data available on the mixture itself.

##### **Acute toxicity**

Harmful if swallowed.

##### **ATEmix calculated**

ATE (oral) 1587 mg/kg; ATE (dermal) > 2000 mg/kg; ATE (inhalation vapour) > 20 mg/l; ATE (inhalation dust/mist) > 5 mg/l

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
302-17-0	chloral hydrate				
	oral	LD50 mg/kg	1265 Mouse	Environmental Health Perspectives Vol. 4	other: as mentioned below
	dermal	LD50 mg/kg	3030 Rat	Gestis substance database (2018)	other: as mentioned below

##### **Irritation and corrosivity**

Skin corrosion/irritation: Based on available data, the classification criteria are not met.

Serious eye damage/eye irritation: Based on available data, the classification criteria are not met.

##### **Sensitising effects**

Based on available data, the classification criteria are not met.

##### **Carcinogenic/mutagenic/toxic effects for reproduction**

Germ cell mutagenicity: Based on available data, the classification criteria are not met.

Carcinogenicity: Based on available data, the classification criteria are not met.

Reproductive toxicity: Based on available data, the classification criteria are not met.

##### **STOT-single exposure**

Based on available data, the classification criteria are not met.

##### **STOT-repeated exposure**

Based on available data, the classification criteria are not met.

##### **Aspiration hazard**

Based on available data, the classification criteria are not met.

##### **Information on likely routes of exposure**

There are no data available on the mixture itself.

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**Chloral hydrate**

Revision: 06.03.2025

Product code: AC15.03085

Page 9 of 11

**Specific effects in experiment on an animal**

There are no data available on the mixture itself.

**Additional information on tests**

There are no data available on the mixture itself.

**Practical experience**

There are no data available on the mixture itself.

**11.2. Information on other hazards****Endocrine disrupting properties**

There are no data available on the mixture itself.

**Other information**

There are no data available on the mixture itself.

**Further information**

There are no data available on the mixture itself.

**SECTION 12: Ecological information****12.1. Toxicity**

Based on available data, the classification criteria are not met.

CAS No	Chemical name	Aquatic toxicity	Dose	[h]   [d]	Species	Source	Method
302-17-0	chloral hydrate						
	Acute fish toxicity	LC50 mg/l	> 100	96 h	Danio rerio	REACH Registration Dossier	OECD Guideline 203
	Acute algae toxicity	ErC50 mg/l	> 200	72 h	Chlorella vulgaris	REACH Registration Dossier	OECD Guideline 201
	Acute crustacea toxicity	EC50 mg/l	> 98	48 h	Daphnia magna	REACH Registration Dossier	OECD Guideline 202
	Crustacea toxicity	NOEC	11,5 mg/l	21 d	Daphnia magna	REACH Registration Dossier	OECD Guideline 211

**12.2. Persistence and degradability**

There are no data available on the mixture itself.

**12.3. Bioaccumulative potential**

There are no data available on the mixture itself.

**Partition coefficient n-octanol/water**

CAS No	Chemical name	Log Pow
302-17-0	chloral hydrate	1,092

**BCF**

CAS No	Chemical name	BCF	Species	Source
302-17-0	chloral hydrate	3,162	Fish	REACH Registration D

**12.4. Mobility in soil**

There are no data available on the mixture itself.

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

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### Chloral hydrate

Revision: 06.03.2025

Product code: AC15.03085

Page 10 of 11

#### **12.6. Endocrine disrupting properties**

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

#### **12.7. Other adverse effects**

There are no data available on the mixture itself.

#### **Further information**

There are no data available on the mixture itself.

## SECTION 13: Disposal considerations

#### **13.1. Waste treatment methods**

##### **Disposal recommendations**

Waste disposal according to directive 2008/98/EC, covering waste and dangerous waste.

Send to a physico-chemical treatment facility under observation of official regulations.

Do not empty into drains.

##### **Contaminated packaging**

Handle contaminated packages in the same way as the substance itself.

The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.

Dispose of waste according to "Kreislaufwirtschafts- und Abfallgesetz (KrW-/AbfG)".

## SECTION 14: Transport information

#### **Land transport (ADR/RID)**

##### **14.1. UN number or ID number:**

No dangerous good in sense of this transport regulation.

##### **14.2. UN proper shipping name:**

No dangerous good in sense of this transport regulation.

##### **14.3. Transport hazard class(es):**

No dangerous good in sense of this transport regulation.

##### **14.4. Packing group:**

No dangerous good in sense of this transport regulation.

#### **Inland waterways transport (ADN)**

##### **14.1. UN number or ID number:**

No dangerous good in sense of this transport regulation.

##### **14.2. UN proper shipping name:**

No dangerous good in sense of this transport regulation.

##### **14.3. Transport hazard class(es):**

No dangerous good in sense of this transport regulation.

##### **14.4. Packing group:**

No dangerous good in sense of this transport regulation.

#### **Marine transport (IMDG)**

##### **14.1. UN number or ID number:**

No dangerous good in sense of this transport regulation.

##### **14.2. UN proper shipping name:**

No dangerous good in sense of this transport regulation.

##### **14.3. Transport hazard class(es):**

No dangerous good in sense of this transport regulation.

##### **14.4. Packing group:**

No dangerous good in sense of this transport regulation.

#### **Air transport (ICAO-TI/IATA-DGR)**

##### **14.1. UN number or ID number:**

No dangerous good in sense of this transport regulation.

##### **14.2. UN proper shipping name:**

No dangerous good in sense of this transport regulation.

##### **14.3. Transport hazard class(es):**

No dangerous good in sense of this transport regulation.

##### **14.4. Packing group:**

No dangerous good in sense of this transport regulation.

#### **14.5. Environmental hazards**

ENVIRONMENTALLY HAZARDOUS:

No

#### **14.6. Special precautions for user**

No dangerous good in sense of this transport regulation.

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

No dangerous good in sense of this transport regulation.

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### Chloral hydrate

Revision: 06.03.2025

Product code: AC15.03085

Page 11 of 11

## SECTION 15: Regulatory information

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

#### EU regulatory information

Restrictions on use (REACH, annex XVII):

Entry 3, Entry 75

Information according to Directive 2012/18/EU (SEVESO III):

Not subject to 2012/18/EU (SEVESO III)

#### National regulatory information

Employment restrictions:

Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC). Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.

Water hazard class (D):

2 - obviously hazardous to water

#### Additional information

No data available

## SECTION 16: Other information

#### Changes

This data sheet contains changes from the previous version in section(s): 2,7,11,14,15.

#### Abbreviations and acronyms

Acute Tox. 3: Acute toxicity, hazard category 3

Skin Irrit. 2: Skin irritation, hazard category 2

Eye Irrit. 2: Eye irritation, hazard category 2

#### Classification for mixtures and used evaluation method according to Regulation (EC) No 1272/2008 [CLP]

Classification	Classification procedure
Acute Tox. 4; H302	Calculation method

#### Relevant H and EUH statements (number and full text)

H301 Toxic if swallowed.

H302 Harmful if swallowed.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

#### Further Information

Provide appropriate information, instructions and training to users

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

The information is based on the present level of our knowledge. It does not, however, give assurance of product properties and establishes no contract legal rights.

The receiver of our product is singularly responsible for adhering to existing laws and regulations.

*(The data for the relevant ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)*