US

# Safety Data Sheet acc. to OSHA HCS

Printing date 05/16/2024

**1** Identification

Reviewed on 05/16/2024

# · Product identifier · Trade name: Hydranal® Coulomat AG Chloroform 70:30 Solution • Article number: LY357 · Details of the supplier of the safety data sheet · Manufacturer/Supplier: Aqua Solutions, Inc. 6913 Highway 225 DEER PARK, TX 77536 USA800-256-2586 · Information department: Technical Coordinator Sherman Nelson shermann@aquasolutions.org · Emergency telephone number: Chemtrec: 800-424-9300 Canutec: 613-996-6666 **2** Hazard(s) identification · Classification of the substance or mixture GHS02 Flame Flammable Liquids 2 H225 Highly flammable liquid and vapor. GHS06 Skull and crossbones Acute Toxicity - Oral 3 H301 Toxic if swallowed. Acute Toxicity - Dermal 3 H311 Toxic in contact with skin. Acute Toxicity - Inhalation 3 H331 Toxic if inhaled. GHS08 Health hazard Carcinogenicity 2 H351 Suspected of causing cancer. Toxic to Reproduction 1A H360 May damage fertility or the unborn child. Specific Target Organ Toxicity - Single Exposure 1 H370 Causes damage to the central nervous system and the visual organs. Specific Target Organ Toxicity - Repeated Exposure 1 H372 Causes damage to the central nervous system, the kidneys, the liver and the respiratory system through prolonged or repeated exposure. GHS05 Corrosion Eye Damage 1 H318 Causes serious eye damage. (Contd. on page 2)

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#### Trade name: Hydranal® Coulomat AG Chloroform 70:30 Solution

(Contd. of page 1) GHS07 Skin Irritation 2 H315 Causes skin irritation. · Label elements • GHS label elements The product is classified and labeled according to the Globally Harmonized System (GHS). · Hazard pictograms GHS05 GHS06 GHS08 GHS02 · Signal word Danger · Hazard-determining components of labeling: Chloroform Methanol Diethanolamine Imidazole, Certified · Hazard statements Highly flammable liquid and vapor. Toxic if swallowed, in contact with skin or if inhaled. Causes skin irritation. Causes serious eye damage. Suspected of causing cancer. May damage fertility or the unborn child. Causes damage to the central nervous system and the visual organs. Causes damage to the central nervous system, the kidneys, the liver and the respiratory system through prolonged or repeated exposure. · Precautionary statements Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting/equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Do not breathe dust/fume/gas/mist/vapors/spray. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Wear protective gloves/protective clothing/eye protection/face protection. If swallowed: Immediately call a poison center/doctor. Specific treatment (see on this label). Rinse mouth. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. IF INHALED: Remove person to fresh air and keep comfortable for breathing. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. IF exposed or concerned: Get medical advice/attention. Call a poison center/doctor if you feel unwell. (Contd. on page 3)

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Cost modical advice/attention if you feel unwell	e 2)
<i>Get medical advice/attention if you feel unwell.</i>	
Take off immediately all contaminated clothing and wash it before reuse.	
If skin irritation occurs: Get medical advice/attention.	
In case of fire: Use CO2, powder or water spray to extinguish.	
Store in a well-ventilated place. Keep container tightly closed.	
Store in a well-ventilated place. Keep cool.	
Store locked up.	
Dispose of contents/container in accordance with local/regional/national/international regulations.	
· Classification system:	
· NFPA ratings (scale 0 - 4)	
Health = 3	
Fire = 3	
$\frac{3}{2} 0  Reactivity = 0$	
· HMIS-ratings (scale 0 - 4)	
HEALTH 3 $Health = 3$	
FIRE $3$ Fire = 3	
$\begin{array}{c} \text{REACTIVITY} \\ \hline \end{array}  Reactivity = 0 \end{array}$	
· Other hazards	
· Results of PBT and vPvB assessment	
• <b><i>PBT</i></b> : Not applicable.	
· <b>vPvB:</b> Not applicable.	
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## **3** Composition/information on ingredients

· Chemical characterization: Mixtures

• *Description: Mixture of the substances listed below with nonhazardous additions.* 

· Dangerous con	pponents:	
CAS: 67-66-3	Chloroform	44.463%
CAS: 67-56-1	Methanol	44.391%
CAS: 111-42-2	Diethanolamine	7.641%
CAS: 288-32-4	Imidazole, Certified	3.505%

#### 4 First-aid measures

- · Description of first aid measures
- · General information:

Immediately remove any clothing soiled by the product.

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

Remove breathing apparatus only after contaminated clothing have been completely removed.

In case of irregular breathing or respiratory arrest provide artificial respiration.

· After inhalation:

Supply fresh air or oxygen; call for doctor.

In case of unconsciousness place patient stably in side position for transportation.

- After skin contact: Immediately wash with water and soap and rinse thoroughly.
- After eye contact: Rinse opened eye for several minutes under running water. Then consult a doctor.
- · After swallowing: Do not induce vomiting; immediately call for medical help.

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- Information for doctor:
- Most important symptoms and effects, both acute and delayed No further relevant information available.
- Indication of any immediate medical attention and special treatment needed
- No further relevant information available.

# **5** Fire-fighting measures

- · Extinguishing media
- · Suitable extinguishing agents:
- CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam. • For safety reasons unsuitable extinguishing agents: Water with full jet
- Special hazards arising from the substance or mixture
- During heating or in case of fire poisonous gases are produced.
- · Advice for firefighters
- · Protective equipment: Mouth respiratory protective device.

# 6 Accidental release measures

Down ow al was on	utions motorting againment and amenancy measures		
	utions, protective equipment and emergency procedures		
	e equipment. Keep unprotected persons away.		
	precautions: Do not allow to enter sewers/ surface or ground water.		
	proculation of the containment and cleaning up:		
	uid-binding material (sand, diatomite, acid binders, universal binders, sawdust).		
Use neutralizin			
Dispose contan	inated material as waste according to section 13.		
Ensure adequat			
• Reference to ot			
	r information on safe handling.		
	r information on personal protection equipment.		
	for disposal information.		
	on Criteria for Chemicals		
· PAC-1:			
CAS: 67-66-3	Chloroform	2 ppm	
	Methanol	530 ppm	
CAS: 111-42-2	Diethanolamine	3 mg/m <sup>3</sup>	
CAS: 288-32-4	Imidazole, Certified	$0.66 \ mg/m^3$	
· PAC-2:			
CAS: 67-66-3	Chloroform	64 ppm	
CAS: 67-56-1	Methanol	2,100 ppm	
CAS: 111-42-2	Diethanolamine	28 mg/m <sup>3</sup>	
CAS: 288-32-4	Imidazole, Certified	$7.3 mg/m^{3}$	
· PAC-3:			
CAS: 67-66-3	Chloroform	3,200 ppm	
CAS: 67-56-1	Methanol	7200* ppm	
CAS: 111-42-2	Diethanolamine	130 mg/m <sup>3</sup>	
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CAS: 288-32-4 Imidazole, Certified

 $\frac{\text{(Contd. of page 4)}}{44 \text{ mg/m}^3}$ 

44 mg/m<sup>3</sup>

# 7 Handling and storage

#### · Handling:

- **Precautions for safe handling** Ensure good ventilation/exhaustion at the workplace. Open and handle receptacle with care. Prevent formation of aerosols.
- Information about protection against explosions and fires: Keep ignition sources away - Do not smoke. Protect against electrostatic charges. Keep respiratory protective device available.
- Conditions for safe storage, including any incompatibilities • Storage:
- Requirements to be met by storerooms and receptacles: Store in a cool location.
- · Information about storage in one common storage facility: Not required.
- Further information about storage conditions: Keep receptacle tightly sealed.
- Store in cool, dry conditions in well sealed receptacles.
- Specific end use(s) No further relevant information available.

#### 8 Exposure controls/personal protection

• Additional information about design of technical systems: No further data; see section 7.

- · Control parameters
- · Components with limit values that require monitoring at the workplace:

The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit.

At this time, the remaining constituent has no known exposure limits.

CAS:	67-66-3 Chloroform	
PEL	Ceiling limit value: 240 mg/m <sup>3</sup> , 50 ppm	
REL	Short-term value: 9.78* mg/m³, 2* ppm *60-min; See Pocket Guide App. A	
TLV	Long-term value: 10 ppm A3	
CAS:	67-56-1 Methanol	
PEL	Long-term value: 260 mg/m <sup>3</sup> , 200 ppm	
REL	Short-term value: 325 mg/m³, 250 ppm Long-term value: 260 mg/m³, 200 ppm Skin	
TLV	Short-term value: 250 ppm Long-term value: 200 ppm Skin; BEI	
CAS:	111-42-2 Diethanolamine	
REL	Long-term value: 15 mg/m³, 3 ppm	
		(Contd. on page

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TLV	Long-term value: 1* mg/m <sup>3</sup>			
	Skin; *inhalable fraction and vapor, A3			
· Ingr	· Ingredients with biological limit values:			
CAS	: 67-56-1 Methanol			
BEI	15 mg/L			
	LD50 Intraperitoneal: urine			

*Time: end of shift LD50: Methanol (background, nonspecific)* 

• Additional information: The lists that were valid during the creation were used as basis.

- · Exposure controls
- · Personal protective equipment:
- $\cdot$  General protective and hygienic measures:

Keep away from foodstuffs, beverages and feed. Immediately remove all soiled and contaminated clothing. Wash hands before breaks and at the end of work. Store protective clothing separately. Avoid contact with the skin. Avoid contact with the eyes and skin.

#### · Breathing equipment:

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

• Protection of hands:



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation  $\cdot$  *Material of gloves* 

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

• Eye protection:



Tightly sealed goggles

· Body protection: Protective work clothing

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9 Physical and chemical properti	*
· Information on basic physical and ch	emical properties
· General Information	
· Appearance:	<b>v</b> ,
Form: Color:	Liquid Yellow
· Odor:	Distinct
· Odor threshold:	Not determined.
· pH-value:	Not determined.
· Change in condition	
Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	61 °C (141.8 °F)
· Flash point:	11 °C (51.8 °F)
· Flammability (solid, gaseous):	Highly flammable.
· Auto igniting:	370 °C (698 °F)
· Decomposition temperature:	Not determined.
· Ignition temperature:	Product is not selfigniting.
• Danger of explosion:	Product is not explosive. However, formation of explosive air/vapo mixtures are possible.
· Explosion limits:	
Lower:	5.5 Vol %
Upper:	44 Vol %
· Vapor pressure at 20 °C (68 °F):	210 hPa (157.5 mm Hg)
• Density at 20 °C (68 °F):	0.9985 g/cm <sup>3</sup> (8.33248 lbs/gal)
· Relative density	Not determined.
· Vapor density	Not determined.
· Evaporation rate	Not determined.
· Solubility in / Miscibility with	
Water:	Not miscible or difficult to mix.
· Partition coefficient (n-octanol/water)	: Not determined.
· Viscosity:	
Dynamic:	Not determined.
Kinematic:	Not determined.
· Solvent content:	
Organic solvents:	52.0 %
VOC content:	52.03 %
	519.5 g/l / 4.34 lb/gal
Solids content:	3.5 %
• Other information	No further relevant information available.

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#### **10 Stability and reactivity**

- · Reactivity No further relevant information available.
- · Chemical stability
- · Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- · Possibility of hazardous reactions No dangerous reactions known.
- · Conditions to avoid No further relevant information available.
- · Incompatible materials: No further relevant information available.
- · Hazardous decomposition products: No dangerous decomposition products known.

#### **11** Toxicological information

· Information on toxicological effects

• Acute toxicity:

· LD/LC50 values that are relevant for classification:

ATE (Acute Toxicity Estimate)

Oral	LD50	180 mg/kg
Dermal	LD50	676 mg/kg
Inhalative	LC50/4h	3.38 mg/l

- · Primary irritant effect:
- on the skin: Irritant to skin and mucous membranes.

• on the eye: Strong irritant with the danger of severe eye injury.

· Sensitization: No sensitizing effects known.

· Additional toxicological information:

The product shows the following dangers according to internally approved calculation methods for preparations: Toxic

Irritant

· Carcinogenic categories

· IARC (Internat	tional Agency for Research on Cancer)	
CAS: 67-66-3		2B
CAS: 111-42-2	Diethanolamine	2B
· NTP (National	Toxicology Program)	
CAS: 67-66-3	Chloroform	R
· OSHA-Ca (Occupational Safety & Health Administration)		
None of the ing	redients is listed.	

## **12** Ecological information

· Toxicity

- Aquatic toxicity: No further relevant information available.
- · Persistence and degradability No further relevant information available.
- · Behavior in environmental systems:
- · Bioaccumulative potential No further relevant information available.
- · Mobility in soil No further relevant information available.
- · Additional ecological information:

· General notes:

Water hazard class 3 (Self-assessment): extremely hazardous for water

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Do not allow product to reach ground water, water course or sewage system, even in small quantities. Must not reach bodies of water or drainage ditch undiluted or unneutralized. Danger to drinking water if even extremely small quantities leak into the ground.

· Results of PBT and vPvB assessment

• **PBT:** Not applicable.

• **vPvB:** Not applicable.

• Other adverse effects No further relevant information available.

# **13 Disposal considerations**

· Waste treatment methods

· Recommendation:

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

- · Uncleaned packagings:
- Recommendation: Disposal must be made according to official regulations.

· UN-Number · DOT, IMDG, IATA	UN1992
· UN proper shipping name · DOT	Flammable liquids, toxic, n.o.s. (Methanol, Chloroform)
· IMDG, IATA	FLAMMABLE LIQUID, TOXIC, N.O.S. (Methanol, Chloroform)
· Transport hazard class(es)	
·DOT	
PRAMATINE LIQUID	
· Class	3 Flammable liquids
· Label	3, 6.1
· IMDG	
· Class	3 Flammable liquids
· Label	3/6.1
·IATA	
· Class	3 Flammable liquids
· Label	3 (6.1)

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Packing group	
· DOT, IMDG, IATA	II
Environmental hazards:	
Marine pollutant:	No
Special precautions for user	Warning: Flammable liquids
Hazard identification number (Kemler co	nde): 368
EMS Number:	F- $E$ , $S$ - $D$
Segregation groups	(SGG18) Alkalis
Stowage Category	В
Stowage Code	SW2 Clear of living quarters.
Transport in bulk according to Annex II	of
MARPOL73/78 and the IBC Code	Not applicable.
Transport/Additional information:	
DOT	
Quantity limitations	On passenger aircraft/rail: 1 L
~ `	On cargo aircraft only: 5 L
IMDG	
Limited quantities (LQ)	1L
Excepted quantities $(EQ)$	Code: E2
	Maximum net quantity per inner packaging: 30 ml
	Maximum net quantity per outer packaging: 500 ml
UN "Model Regulation":	UN 1992 FLAMMABLE LIQUID, TOXIC, N.O.S. (METHANO) CHLOROFORM), 3 (6.1), II

# **15** Regulatory information

· Safety, health and environmental regulations/legislation specific for the substance or mixtu	re
No further relevant information available.	
· Sara	

· Section 355 (extremely hazardous substances):			
CAS: 67-66-3	Chloroform		
· Section 313 (Sp	pecific toxic chemical listings):		
CAS: 67-66-3	Chloroform		
CAS: 67-56-1	Methanol		
CAS: 111-42-2	Diethanolamine		
· TSCA (Toxic S	· TSCA (Toxic Substances Control Act):		
Chloroform		ACTIVE	
Methanol		ACTIVE	
Diethanolamine		ACTIVE	
Imidazole, Cert	Imidazole, Certified ACTI		
· Hazardous Air Pollutants			
CAS: 67-66-3	Chloroform		
CAS: 67-56-1	Methanol		
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#### Trade name: Hydranal® Coulomat AG Chloroform 70:30 Solution

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CAS: 111-42-2	Diethanolamine		
· Proposition 65			
· Chemicals known to cause cancer:			
CAS: 67-66-3	Chloroform		
CAS: 111-42-2	Diethanolamine		
· Chemicals known to cause reproductive toxicity for females:			
None of the ingredients is listed.			
· Chemicals known to cause reproductive toxicity for males:			

None of the ingredients is listed.

· Chemicals known to cause developmental toxicity:

CAS: 67-66-3 Chloroform CAS: 67-56-1 Methanol

#### · Carcinogenic categories

· EPA (Environmental Protection Agency)

CAS: 67-66-3 Chloroform

#### · TLV (Threshold Limit Value)

CAS: 67-66-3 Chloroform

CAS: 111-42-2 Diethanolamine

· NIOSH-Ca (National Institute for Occupational Safety and Health)

#### CAS: 67-66-3 Chloroform

• GHS label elements The product is classified and labeled according to the Globally Harmonized System (GHS). · Hazard pictograms



· Signal word Danger

Hazard-determining components of labeling:
Chloroform
Methanol
Diethanolamine
Imidazole, Certified
· Hazard statements
Highly flammable liquid and vapor.
Toxic if swallowed, in contact with skin or if inhaled.
Causes skin irritation.
Causes serious eye damage.
Suspected of causing cancer.
May damage fertility or the unborn child.
Causes damage to the central nervous system and the visual organs.
Causes damage to the central nervous system, the kidneys, the liver and the respiratory system through prolonged
or repeated exposure.
· Precautionary statements
Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.

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Keep away from heat/sparks/open flames/hot surfaces No smoking.	
Ground/bond container and receiving equipment.	
Use explosion-proof electrical/ventilating/lighting/equipment.	
Use only non-sparking tools.	
Take precautionary measures against static discharge.	
Do not breathe dust/fume/gas/mist/vapors/spray.	
Wash thoroughly after handling.	
Do not eat, drink or smoke when using this product.	
Use only outdoors or in a well-ventilated area.	
Wear protective gloves/protective clothing/eye protection/face protection.	
If swallowed: Immediately call a poison center/doctor.	
Specific treatment (see on this label).	
Rinse mouth.	
If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/show	ver.
IF INHALED: Remove person to fresh air and keep comfortable for breathing.	
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if prese	ent and easy to do.
Continue rinsing.	
IF exposed or concerned: Get medical advice/attention.	
Call a poison center/doctor if you feel unwell.	
Get medical advice/attention if you feel unwell.	
Take off immediately all contaminated clothing and wash it before reuse.	
If skin irritation occurs: Get medical advice/attention.	
In case of fire: Use CO2, powder or water spray to extinguish.	
Store in a well-ventilated place. Keep container tightly closed.	
Store in a well-ventilated place. Keep cool.	
Store locked up.	
Dispose of contents/container in accordance with local/regional/national/international regulat	ions.
<b>Chemical safety assessment:</b> A Chemical Safety Assessment has not been carried out.	

## **16 Other information**

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- · Department issuing SDS: Environment protection department.
- · Contact: Date of Preparation / Last Revision: · Date of preparation / last revision Revision 1.2, 05/16/2024: Reviewed SDS for accuracy. MH/STN 05/16/2024 · Abbreviations and acronyms: IMDG: International Maritime Code for Dangerous Goods DOT: US Department of Transportation IATA: International Air Transport Association EINECS: European Inventory of Existing Commercial Chemical Substances ELINCS: European List of Notified Chemical Substances CAS: Chemical Abstracts Service (division of the American Chemical Society) NFPA: National Fire Protection Association (USA) HMIS: Hazardous Materials Identification System (USA) VOC: Volatile Organic Compounds (USA, EU) LC50: Lethal concentration, 50 percent LD50: Lethal dose, 50 percent PBT: Persistent, Bioaccumulative and Toxic vPvB: very Persistent and very Bioaccumulative NIOSH: National Institute for Occupational Safety OSHA: Occupational Safety & Health

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	TLV: Threshold Limit Value	
	PEL: Permissible Exposure Limit	
	REL: Recommended Exposure Limit	
	BEI: Biological Exposure Limit	
	Flammable Liquids 2: Flammable liquids – Category 2	
	Acute Toxicity - Oral 3: Acute toxicity – Category 3	
	Skin Irritation 2: Skin corrosion/irritation – Category 2	
	Eye Damage 1: Serious eye damage/eye irritation – Category 1	
	Carcinogenicity 2: Carcinogenicity – Category 2	
	Toxic to Reproduction 1A: Reproductive toxicity – Category 1A	
	Specific Target Organ Toxicity - Single Exposure 1: Specific target organ toxicity (single exposure) – Category 1	
	Specific Target Organ Toxicity - Repeated Exposure 1: Specific target organ toxicity (repeated exposure) – Category 1	
•	* Data compared to the previous version altered.	

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