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Version: 7.5

Effective date: 17/02/2021

Previous Date: 25/11/2019

SAFETY DATA SHEET

KLARAID IC1170 (Hycog IC 10)

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

1.1. Product identifier

Trade name or designation of the mixture KLARAID IC1170 (Hycog IC 10)

Version number 7.5

Revision date 17/02/2021

Supersedes date 25/11/2019

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

Identified uses Coagulant

Uses advised against None known.

1.3. Details of the supplier of the safety data sheet

JV Process and Water Chemicals LLC

Address: Street V. Kadirov 10, Chirchik city,
Tashkent Region, Republic of Uzbekistan, 111727

Tel: +99871 209 10 40

Email address: info@pwch.uz

www.pwch.uz

1.4. Emergency telephone number

Multilingual emergency number (24/7)

Street V. Kadirov 10, Chirchik city,
Tashkent Region,
Republic of Uzbekistan, 111727

Tel: +99871 209 10 40

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 as amended

Physical hazards

Corrosive to metals Category 1

H290 - May be corrosive to metals.

Health hazards

Serious eye damage/eye irritation Category 2

H319 - Causes serious eye irritation.

2.2. Label elements

Label according to Regulation (EC) No. 1272/2008 as amended

Hazard pictograms



Signal word

Warning



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Hazard statements

H290 May be corrosive to metals.
H319 Causes serious eye irritation.

Precautionary statements

Prevention

P280 Wear protective gloves/protective clothing/eye protection/face protection.

Response

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313 If eye irritation persists: Get medical advice/attention.
P390 Absorb spillage to prevent material-damage.

Storage

Not available.

Disposal

Not available.

Supplemental label information

None.

2.3. Other hazards

None known.

SECTION 3: Composition/information on ingredients

Mixtures

Chemical description

Inorganic Coagulant

Chemical name	%	CAS-No. / EC No.	REACH Registration No.	Index No.	Notes
Aluminum chloride hydroxide sulfate	20 - 40	39290-78-3 254-400-7	01-2119531540-51	-	

Classification: Met. Corr. 1;H290, Eye Irrit. 2;H319

The classification of the above substance(s) is given, including the hazard class, category code and hazard statements which are assigned in accordance with their physicochemical, health and environmental hazards. Please refer to section 16 where the full text of each relevant H-statement is listed.

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation Remove victim to fresh air and keep at rest in a position comfortable for breathing.

Skin contact Take off immediately all contaminated clothing.
Wash off immediately with soap and plenty of water.
If skin irritation occurs: Get medical advice/attention.

Eye contact Rinse immediately with plenty of water for at least 15 minutes.
Get medical attention if irritation develops and persists.

Ingestion Rinse mouth.
Do not give anything to eat or drink.
Do not induce vomiting.
Call a physician or poison control centre immediately.

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

4.3. Indication of any immediate medical attention and special treatment needed Not available.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media Dry chemical, CO2, water spray or regular foam.

Unsuitable extinguishing media Not available.



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5.2. Special hazards arising from the substance or mixture	Hydrogen chloride gas (HCl). Oxides of sulphur evolved in fire.
5.3. Advice for firefighters	
Special protective equipment for firefighters	Self contained breathing apparatus. (CEN : EN 137) Protective clothing (CEN : EN 469) Protective gloves (CEN : EN 659) Helmet (CEN : EN 443)
Special fire fighting procedures	Use standard firefighting procedures and consider the hazards of other involved materials. Prevent spillage and fire-fighting water from entering in public sewers or the immediate environment.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures	
For non-emergency personnel	Wear protective clothing, gloves and safety goggles.
For emergency responders	Use personal protection recommended in Section 8 of the SDS.
6.2. Environmental precautions	Prevent from entering sewers or the immediate environment. Accidental release of large quantities into the aquatic environment may harm aquatic organisms.
6.3. Methods and material for containment and cleaning up	Absorb product with an adequate material such as paper,rags,sawdust,... Remove small spills with plenty of water.
6.4. Reference to other sections	Please refer also to section no. 8 'Exposure controls' for further information.

SECTION 7: Handling and storage

7.1. Precautions for safe handling	Acidic. Do not mix with alkaline material.
7.2. Conditions for safe storage, including any incompatibilities	Store containers closed when not in use. Do not freeze. If frozen, thaw completely and mix thoroughly prior to use. Store in corrosive resistant container with a resistant inner liner.
7.3. Specific end use(s)	Only for industrial users
Shelf life	135 days

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits

UK. EH40 Workplace Exposure Limits (WELs)

Components	Type	Value
Aluminum chloride hydroxide sulfate (CAS 39290-78-3)	TWA	2 mg/m3

Biological limit values No biological exposure limits noted for the ingredient(s).

Recommended monitoring procedures Not available.

Derived no effect levels (DNELs)

Workers

Components	Value	Assessment factor	Notes
Aluminum chloride hydroxide sulfate (CAS 39290-78-3)			
Long-term, Systemic, Dermal	12,6 mg/kg bw/day		
Long-term, Systemic, Inhalation	40,1 mg/m3	25	
Short-term, Systemic, Inhalation	10 µg/m3		

Predicted no effect concentrations (PNECs)

Components	Value	Assessment factor	Notes
Aluminum chloride hydroxide sulfate (CAS 39290-78-3)			
Freshwater	0,025 mg/l	10	



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Intermittent releases	0,074 mg/l	100	
Marine water	0,0025 mg/l		
Secondary poisoning	8,24 mg/kg	3000	Oral
Sediment (freshwater)	3,736 mg/kg	10	
Sediment (marine water)	3,736 mg/kg		
Soil	4,94 mg/kg	100	
STP	100 mg/l	10	

8.2. Exposure controls

Appropriate engineering controls Adequate ventilation to maintain air contaminants below exposure limits.
Arrange for eye wash possibility.

Individual protection measures, such as personal protective equipment

- Eye/face protection** Safety goggles.
CEN : EN 166
- Skin protection**
- **Hand protection** Neoprene gloves (Protection against unintentional short-term contact)
Penetration time: > 480 min
Coating thickness: > 0,65 mm
CEN : EN 374-1/2/3/4; EN 420
- **Other** Protective clothing.
CEN : EN ISO 13688; EN ISO 6529; EN 14605
- Respiratory protection** In case of insufficient ventilation, use a breathing mask with filter type: P2
CEN : EN 140; EN 143; EN 149
- Thermal hazards** Not available.

Environmental exposure controls Prevent from entering in public sewers or the immediate environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance

Colour Colourless to light yellow

Physical state Liquid

Odour Slight

Odour threshold Not available.

pH (concentrated product) 2,5

pH in aqueous solution 4,2 (5% SOL.)

Melting point/freezing point -18 °C

Initial boiling point and boiling range Not available.

Flash point Not applicable.

Evaporation rate < 1 (Ether = 1)

Flammability (solid, gas) Not applicable.

Upper/lower flammability or explosive limits

Flammability limit - lower (%) Not available.

Flammability limit - upper (%) Not available.

Vapour pressure 18 mm Hg

Vapour pressure temp. 21 °C

Vapour density < 1 (Air = 1)

Relative density 1,2

Relative density temperature 21 °C



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Solubility

Solubility (water)	100 %
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not applicable.
Decomposition temperature	Not available.
Viscosity	20 cps
Viscosity temperature	21 °C
Explosive properties	Not available.
Oxidising properties	Not available.
9.2. Other information	
Pour point	-15 °C
Shelf life	135 days
VOC	0 % (Estimated)

SECTION 10: Stability and reactivity

10.1. Reactivity	Not available.
10.2. Chemical stability	Material is stable under normal conditions.
10.3. Possibility of hazardous reactions	Not applicable.
10.4. Conditions to avoid	Protect from freezing.
10.5. Incompatible materials	Avoid contact with strong oxidisers. Avoid contact with strong bases.
10.6. Hazardous decomposition products	Hydrogen chloride gas (HCl). Oxides of sulphur evolved in fire.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Product	Test Results
KLARAIID IC1170 (Hycog IC 10) (Mixture)	Acute Dermal LD50 Rabbit: > 5000 mg/kg (Calculated according to GHS additivity formula) Acute Inhalation LC50 Rat: > 5 mg/l 4 Hours (Calculated according to GHS additivity formula) Acute Oral LD50 Rat: > 5000 mg/kg (Calculated according to GHS additivity formula)
Components	Test Results
Aluminum chloride hydroxide sulfate (39290-78-3)	Acute Dermal LD50 Rabbit: > 2000 mg/kg Acute Inhalation LC50 Rat: > 5 mg/l 4 Hours Acute Oral LD50 Rat: 3450 mg/kg
Acute toxicity	Based on available data, the classification criteria are not met.
Skin corrosion/irritation	Based on available data, the classification criteria are not met.
Serious eye damage/irritation	Causes serious eye irritation.
Respiratory or skin sensitisation	Based on available data, the classification criteria are not met.
Specific target organ toxicity - repeated exposure	Based on available data, the classification criteria are not met.
Specific target organ toxicity - single exposure	Based on available data, the classification criteria are not met.
Carcinogenicity	Based on available data, the classification criteria are not met.



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

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

Information on likely routes of exposure

- Ingestion** May cause irritation of the gastrointestinal tract.
- Inhalation** Prolonged or excessive inhalation may cause respiratory tract irritation.
- Skin contact** May be irritating to the skin.
- Eye contact** Causes serious eye irritation.

Symptoms Not available.

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

Mixture versus substance information None known.

Other information Not available.

SECTION 12: Ecological information

12.1. Toxicity

Product	Species		Test Results
KLARAID IC1170 (Hycog IC 10) (CAS Mixture)			
Aquatic Crustacea	LC50	Daphnia magna	233,2 mg/l, Static Acute Bioassay, 48 hour, (pH adjusted)
	NOEL	Daphnia magna	155 mg/l, Static Acute Bioassay, 48 hour, (pH adjusted)
	LC50	Fathead minnow	202,7 mg/l, Static Acute Bioassay, 96 hour, (pH adjusted)
		Rainbow trout	405 mg/l, Static Acute Bioassay, 96 hour, (pH adjusted)
		NOEL	Fathead minnow
	Fish	Rainbow trout	87 mg/l, Static Acute Bioassay, 96 hour, (pH adjusted)

12.2. Persistence and degradability No data available

12.3. Bioaccumulative potential Not available.

Partition coefficient n-octanol/water (log Kow) Not available.

Bioconcentration factor (BCF) Not available.

12.4. Mobility in soil Not available.

12.5. Results of PBT and vPvB assessment Not a PBT or vPvB substance or mixture.

12.6. Other adverse effects Not available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Contaminated packaging According to Hazardous Waste Regulations.

EWC (European Waste Code) recommendation : 15 01 10
 15 Waste packaging; absorbents, wiping cloths, filter materials and protective clothing not otherwise specified.
 15 01 Packaging (including separately collected municipal packaging waste).
 15 01 10 Packaging containing residues of or contaminated by dangerous substances.
 Depending on the origin and state of the waste, other EWC numbers may be applicable too.



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Disposal methods/information According to Hazardous Waste Regulations.

EWC (European Waste Code) recommendation : 16 03 03
16 Wastes not otherwise specified in the list.
16 03 Off-specification batches and unused products.
16 03 03 Inorganic wastes containing dangerous substances.
Depending on the origin and state of the waste, other EWC numbers may be applicable too.

SECTION 14: Transport information

ADR

- 14.1. UN number UN3264
- 14.2. UN proper shipping name Corrosive liquid, acidic, inorganic, n.o.s. (Aluminum chloride hydroxide sulfate, Mixture)
- 14.3. Transport hazard class(es)
 - Class 8
 - Subsidiary risk -
 - Tunnel restriction code (E)
- 14.4. Packing group III
- 14.5. Environmental hazards No.
- 14.6. Special precautions for user Not available.

RID

- 14.1. UN number UN3264
- 14.2. UN proper shipping name Corrosive liquid, acidic, inorganic, n.o.s. (Aluminum chloride hydroxide sulfate, Mixture)
- 14.3. Transport hazard class(es)
 - Class 8
 - Subsidiary risk -
- 14.4. Packing group III
- 14.5. Environmental hazards No.
- 14.6. Special precautions for user Not available.

ADN

- 14.1. UN number UN3264
- 14.2. UN proper shipping name Corrosive liquid, acidic, inorganic, n.o.s. (Aluminum chloride hydroxide sulfate, Mixture)
- 14.3. Transport hazard class(es)
 - Class 8
 - Subsidiary risk -
- 14.4. Packing group III
- 14.5. Environmental hazards No.
- 14.6. Special precautions for user Not available.

IATA

- 14.1. UN number UN3264
- 14.2. UN proper shipping name Corrosive liquid, acidic, inorganic, n.o.s. (Aluminum chloride hydroxide sulfate, Mixture)
- 14.3. Transport hazard class(es)
 - Class 8
 - Subsidiary risk -
- 14.4. Packing group III
- 14.5. Environmental hazards No.
- ERG Code Not available.
- 14.6. Special precautions for user Not available.

IMDG

- 14.1. UN number UN3264



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14.2. UN proper shipping name	Corrosive liquid, acidic, inorganic, n.o.s. (Aluminum chloride hydroxide sulfate, Mixture)
14.3. Transport hazard class(es)	
Class	8
Subsidiary risk	-
14.4. Packing group	III
14.5. Environmental hazards	
Marine pollutant	No.
EmS	F-A, S-B
14.6. Special precautions for user	Not available.
14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code	This substance/mixture is not intended to be transported in bulk.

ADN; ADR; IATA; IMDG; RID



SECTION 15: Regulatory information

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

EU regulations

Regulation (EC) No. 1005/2009 on substances that deplete the ozone layer, Annex I and II, as amended

Not listed.

Regulation (EC) No. 850/2004 On persistent organic pollutants, Annex I as amended

Not listed.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 1 as amended

Not listed.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 2 as amended

Not listed.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 3 as amended

Not listed.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex V as amended

Not listed.

Regulation (EC) No. 166/2006 Annex II Pollutant Release and Transfer Registry, as amended

Aluminum chloride hydroxide sulfate (CAS 39290-78-3)

Regulation (EC) No. 1907/2006, REACH Article 59(10) Candidate List as currently published by ECHA

Not listed.

Authorisations

Regulation (EC) No. 1907/2006, REACH Annex XIV Substances subject to authorization, as amended

Not listed.

Restrictions on use

Regulation (EC) No. 1907/2006, REACH Annex XVII Substances subject to restriction on marketing and use as amended

Not listed.



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Directive 2004/37/EC: on the protection of workers from the risks related to exposure to carcinogens and mutagens at work, as amended.

Not listed.

Other EU regulations

Directive 2012/18/EU on major accident hazards involving dangerous substances, as amended

Not listed.

National regulations

Not available.

15.2. Chemical safety assessment

Not available.

Inventory status

Country(s) or region	Inventory name	On inventory (yes/no)*
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

SECTION 16: Other information

List of abbreviations

EC-No: European Commission Number
 COD: Chemical Oxygen Demand
 IATA: International Air Transport Association
 CAS: Chemical Abstract Service.
 CLP: Classification, Labeling and Packaging REGULATION (EC) No 1272/2008 on classification, labeling and packaging of substances and mixtures.
 CEN: European Committee for Standardization (Comité Européen de Normalisation).
 TWA: Time Weighted Average.
 STEL: Short-term Exposure Limit.
 LD50: Lethal Dose 50%.
 LC50: Lethal Concentration 50%.
 EC50: Effective Concentration 50%.
 NOEL: No observed effect level.
 BOD: Biochemical oxygen demand.
 TOC: Total Organic Carbon.
 ADR: European agreement concerning the international carriage of dangerous goods by road (Accord européen relatif transport des marchandises dangereuses par route).
 ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways (Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieures).
 IMDG Code: International Maritime Dangerous Goods Code.
 RID: Regulations concerning the international carriage of dangerous goods by rail (Règlement International concernant le transport de marchandises dangereuses par chemin de fer).

References

Safety data sheets of raw materials.

Information on evaluation method leading to the classification of mixture

The physical, health and environmental hazards of this mixture are assessed by applying the classification criteria for each hazard class or differentiation in Parts 2 to 5 of Annex I to Regulation (EC) No 1272/2008 (CLP).

Full text of any H-statements not written out in full under Sections 2 to 15

H290 May be corrosive to metals.
H319 Causes serious eye irritation.

Revision information

SECTION 3: Composition/information on ingredients: Composition comments
SECTION 7: Handling and storage: 7.3. Specific end use(s)
SECTION 8: Exposure controls/personal protection: Respiratory protection
SECTION 16: Other information: Further information

Training information

Provide training on safe handling while considering the type of application and exposure scenarios.



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**Based on EC Directive /
Regulations**

(EC) No 1907/2006 (REACH)
(EC) No 1272/2008
(EU) 2015/830
(EU) No 1357/2014

Further information

Correction in Section: 8