



P&WC

SAFETY DATA SHEET

FERROQUEST LP7121 (ScaleKlean PW 100)

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

1.1. Product identifier

Trade name or designation of the mixture FERROQUEST LP7121 (ScaleKlean PW 100)

Version number 5.7

Revision date 21/10/2020

Supersedes date 13/05/2019

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

Identified uses Descaler for calcium carbonate

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

Skin corrosion/irritation Category 2 H315 - Causes skin irritation.

Serious eye damage/eye irritation Category 2 H319 - Causes serious eye irritation.

Environmental hazards

Hazardous to the aquatic environment, long-term aquatic hazard Category 3 H412 - Harmful to aquatic life with long lasting effects.

2.2. Label elements



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

Hazard pictograms



Signal word

Warning

Hazard statements

H290	May be corrosive to metals.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H412	Harmful to aquatic life with long lasting effects.

Precautionary statements

Prevention

P273 Avoid release to the environment.

Response

P302 + P352	IF ON SKIN: Wash with plenty of water.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P332 + P313	If skin irritation occurs: Get medical advice/attention.
P337 + P313	If eye irritation persists: Get medical advice/attention.

Storage

P406 Store in a corrosion resistant container with a resistant inner liner.

Disposal

Not available.

Supplemental label information

EUH208 - Contains Diethylthiourea. May produce an allergic reaction.

2.3. Other hazards

None known.

SECTION 3: Composition/information on ingredients

Mixtures

Chemical description

Sulphamic acid based powder

Chemical name	%	CAS-No. / EC No.	REACH Registration No.	Index No.	Notes
Sulphamic acid	90 - 100	5329-14-6 226-218-8	01-2119488633-28	016-026-00-0	
Classification:	Skin Irrit. 2;H315, Eye Irrit. 2;H319, Aquatic Chronic 3;H412				
Diethylthiourea	< 1	105-55-5 203-308-5	01-2119974271-37	-	
Classification:	Acute Tox. 4;H302, Acute Tox. 4;H312, Skin Sens. 1B;H317, Eye Dam. 1;H318, Carc. 2;H351, STOT RE 1;H372, Aquatic Chronic 3;H412				

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



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Ingestion	Rinse mouth. Do not induce vomiting. Do not give anything to eat or drink. 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	Water fog. Foam. Carbon dioxide (CO ₂).
Unsuitable extinguishing media	Not available.
5.2. Special hazards arising from the substance or mixture	Oxides of carbon, nitrogen, and 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	Handle in accordance with good industrial hygiene and safety procedures. Do not empty into drains, dispose of this material and its container to hazardous or special waste collection point.
6.3. Methods and material for containment and cleaning up	Absorb onto inert material and dispose of according to Hazardous Waste Regulations.
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	Ensure good ventilation. Acidic mist evolved during cleaning. Hydrogen can be formed during cleaning. Do not breathe vapours. Avoid contact with skin and eyes.
7.2. Conditions for safe storage, including any incompatibilities	Keep container tightly closed. Store in cool, well ventilated area. Store in corrosive resistant container with a resistant inner liner.
7.3. Specific end use(s)	Only for professional and industrial users
Shelf life	720 days

SECTION 8: Exposure controls/personal protection

8.1. Control parameters



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Occupational exposure limits

UK. EH40 Workplace Exposure Limits (WELs)

Additional components	Type	Value	Form
Dust (CAS N/A)	TWA	4 mg/m ³	Respirable dust.
		10 mg/m ³	Inhalable dust.

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
Diethylthiourea (CAS 105-55-5)			
Long-term, Systemic, Dermal	2,08 mg/kg/day		
Long-term, Systemic, Inhalation	0,14 mg/m ³		
Sulphamic acid (CAS 5329-14-6)			
Long-term, Systemic, Dermal	10 mg/kg bw/day	100	Repeated dose toxicity
Long-term, Systemic, Inhalation	70,5 mg/m ³	25	Repeated dose toxicity

Predicted no effect concentrations (PNECs)

Components	Value	Assessment factor	Notes
Diethylthiourea (CAS 105-55-5)			
Freshwater	33,4 µg/l	50	
Marine water	3,3 µg/l	500	
Sediment (freshwater)	0,248 mg/kg		
Sediment (marine water)	0,025 mg/kg		
Soil	0,03 mg/kg		
STP	200 µg/l	10	
Sulphamic acid (CAS 5329-14-6)			
Freshwater	1,8 mg/l	10	
Intermittent releases	0,48 mg/l	100	
Marine water	0,18 mg/l	100	
Sediment (freshwater)	8,36 mg/kg		
Sediment (marine water)	0,84 mg/kg		
Soil	5 mg/kg	10	
STP	20 mg/l	10	

8.2. Exposure controls

Appropriate engineering controls Provide adequate ventilation.

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)
Nitrile gloves (Protection against unintentional short-term contact)
Rubber gloves (Protection against unintentional short-term contact)
Coating thickness: 0,11 mm
Penetration time: 480 min
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.
Do not empty into drains, dispose of this material and its container to hazardous or special waste collection point.



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SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance

Colour Yellow-amber-green

Physical state Powder

Odour Mild

Odour threshold Not available.

pH (concentrated product) Not available.

pH in aqueous solution 1 (5% SOL.)

Melting point/freezing point Not available.

Initial boiling point and boiling range Not available.

Flash point > 100 °C P-M(CC)

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 < 1 mm Hg

Vapour pressure temp. 21 °C

Vapour density < 0,1 (Air = 1)

Relative density Not available.

Relative density temperature 21 °C

Solubility

Solubility (water) 14 %

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

Auto-ignition temperature Not applicable.

Decomposition temperature Not available.

Viscosity Not applicable.

Viscosity temperature 21 °C

Explosive properties Not available.

Oxidising properties Not available.

9.2. Other information

Shelf life 720 days

VOC 0 % (Calculated)

SECTION 10: Stability and reactivity

10.1. Reactivity Strong oxidising agents.

10.2. Chemical stability Material is stable under normal conditions.

10.3. Possibility of hazardous reactions Not applicable.

10.4. Conditions to avoid Do not expose to moisture.

10.5. Incompatible materials Avoid contact with strong acids.

10.6. Hazardous decomposition products Oxides of carbon, nitrogen, and sulphur evolved in fire.



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SECTION 11: Toxicological information

11.1. Information on toxicological effects

Product	Test Results
FERROQUEST LP7121 (ScaleKlean PW 100) (Mixture)	Acute Dermal LD50 Rabbit: > 2000 mg/kg (Calculated according to GHS additivity formula) Acute Oral LD50 Rat: > 2000 mg/kg (Calculated according to GHS additivity formula)

Components	Test Results
Diethylthiourea (105-55-5)	Acute Dermal LD50 Rabbit: 2000 mg/kg Acute Oral LD50 Rat: 930 mg/kg
Sulphamic acid (5329-14-6)	Acute Dermal LD50 Rabbit: > 2000 mg/kg Acute Oral LD50 Rat: 2140 mg/kg

Acute toxicity	Based on available data, the classification criteria are not met.
Skin corrosion/irritation	Causes skin irritation.
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.
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	May cause irritation to the respiratory system.
Skin contact	Causes skin irritation.
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	No data available
12.2. Persistence and degradability	
- COD (mgO ₂ /g)	35
- TOC (mg C/g)	4
12.3. Bioaccumulative potential	Not available.

Partition coefficient n-octanol/water (log Kow)	
Diethylthiourea	0,57

Bioconcentration factor (BCF)	Not available.
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12.4. Mobility in soil	Not available.
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12.5. Results of PBT and vPvB assessment	Not a PBT or vPvB substance or mixture.
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12.6. Other adverse effects	Not available.
Summary	The surfactant(s) contained in this preparation complies(comply) with the biodegradability criteria as laid down in Regulation (EC) No.648/2004 on detergents. Data to support this assertion are held at the disposal of the competent authorities of the Member States and will be made available to them, at their direct request or at the request of a detergent manufacturer.

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.
Disposal methods/information	According to Hazardous Waste Regulations. EWC (European Waste Code) recommendation : 16 03 05 16 Wastes not otherwise specified in the list. 16 03 Off-specification batches and unused products. 16 03 05 Organic 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	UN2967
14.2. UN proper shipping name	Sulphamic acid
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	UN2967
14.2. UN proper shipping name	Sulphamic acid
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	UN2967
14.2. UN proper shipping name	Sulphamic acid
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.



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IATA

14.1. UN number	UN2967
14.2. UN proper shipping name	Sulphamic acid
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	UN2967
14.2. UN proper shipping name	Sulphamic acid
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.



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

Not listed.

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.

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.

NSF Registered and/or meets USDA (according to 1998 guidelines):

Registration No. – 140949

Category Code(s):

G5 Cooling and retort water treatment products

G7 Boiler, steam line treatment products – nonfood contact

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).



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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	H302 Harmful if swallowed. H312 Harmful in contact with skin. H315 Causes skin irritation. H317 May cause an allergic skin reaction. H318 Causes serious eye damage. H319 Causes serious eye irritation. H351 Suspected of causing cancer. H372 Causes damage to organs through prolonged or repeated exposure. H412 Harmful to aquatic life with long lasting effects.
Revision information	Physical & Chemical Properties: Multiple Properties SECTION 11: Toxicological information: Acute toxicity SECTION 11: Toxicological information: Carcinogenicity SECTION 11: Toxicological information: Germ cell mutagenicity SECTION 11: Toxicological information: Reproductive toxicity SECTION 11: Toxicological information: Respiratory or skin sensitisation SECTION 11: Toxicological information: Specific target organ toxicity - repeated exposure SECTION 11: Toxicological information: Specific target organ toxicity - single exposure SECTION 16: Other information: Further information
Training information	Provide training on safe handling while considering the type of application and exposure scenarios.
Constituents (Regulation (EC) No 648/2004)	Less than 5 % of non-ionic surfactants
Based on EC Directive / Regulations	(EC) No 1907/2006 (REACH) (EC) No 1272/2008 (EU) No 1357/2014 (EU) 2015/830
Further information	Correction in Section: 3,8,11