Safety Data Sheet
acc. to OSHA HCS

Printing date 05/03/2024 *Reviewed on 05/03/2024*

1 Identification

· **Product identifier**

· **Trade name: Mineral Base I**

· **Article number:** LUM010

· **Details of the supplier of the safety data sheet**
· **Manufacturer/Supplier:**
Aqua Solutions, Inc.
6913 Highway 225
DEER PARK, TX 77536
USA
800-256-2586

· **Information department:**
Technical Coordinator
Sherman Nelson shermann@aquasolutions.org
· **Emergency telephone number:**
Chemtrec: 800-424-9300
Canutec: 613-996-6666

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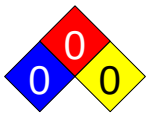
2 Hazard(s) identification

· **Classification of the substance or mixture**
The product is not classified, according to the Globally Harmonized System (GHS).

· **Label elements**
· **GHS label elements** Not Applicable
· **Hazard pictograms** Not Applicable
· **Signal word** Not Applicable
· **Hazard statements** Not Applicable
· **Precautionary statements**
If swallowed: Call a poison center/doctor if you feel unwell.
If on skin: Wash with plenty of water.
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Store in a closed container.
Dispose of contents/container in accordance with local/regional/national/international regulations.
· **Classification system:**
· **NFPA ratings (scale 0 - 4)**



Health = 0
Fire = 0
Reactivity = 0

· **HMIS-ratings (scale 0 - 4)**

Health = 0
Fire = 0
Reactivity = 0

· **Other hazards**
· **Results of PBT and vPvB assessment**
· **PBT:** Not applicable.
· **vPvB:** 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 components:** Not Applicable

· **Table of Nonhazardous Ingredients**		
CAS: 7732-18-5	Water	99.561%
CAS: 13478-10-9	Ferrous Chloride	0.4%
CAS: 7791-13-1	Cobalt Chloride Hexahydrate	0.025%
CAS: 13446-34-9	Manganese Chloride	0.005%
CAS: 7791-20-0	Nickel Chloride	0.003%
CAS: 10043-35-3	boric acid	0.003%
CAS: 13410-01-0	Sodium selenate	0.003%
CAS: 10125-13-0	Copper (II) Chloride Dihydrate (Cupric Chloride Dihydrate)	0.001%
CAS: 7646-85-7	Zinc Chloride	0.001%
CAS: 10102-40-6	Sodium Molybdate Dihydrate	0.001%

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4 First-aid measures

· **Description of first aid measures**
· **General information:** No special measures required.
· **After inhalation:** Supply fresh air; consult doctor in case of complaints.
· **After skin contact:** Immediately rinse with water.
· **After eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.
· **After swallowing:** If symptoms persist consult doctor.
· **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:** Use fire fighting measures that suit the environment.
· **Special hazards arising from the substance or mixture** No further relevant information available.
· **Advice for firefighters**
· **Protective equipment:** No special measures required.

6 Accidental release measures

· **Personal precautions, protective equipment and emergency procedures** Not required.
· **Environmental precautions:**
Dilute with plenty of water.
Do not allow to enter sewers/ surface or ground water.
· **Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

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Dispose contaminated material as waste according to section 13.

· **Reference to other sections**

See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

· **Protective Action Criteria for Chemicals**

· **PAC-1:**		
CAS: 13478-10-9	Ferrous Chloride	11 mg/m³
CAS: 7791-13-1	Cobalt Chloride Hexahydrate	0.24 mg/m³
CAS: 13446-34-9	Manganese Chloride	11 mg/m³
CAS: 7791-20-0	Nickel Chloride	1.2 mg/m³
CAS: 10043-35-3	boric acid	6 mg/m³
CAS: 13410-01-0	Sodium selenate	1.4 mg/m³
CAS: 10125-13-0	Copper (II) Chloride Dihydrate (Cupric Chloride Dihydrate)	8 mg/m³
CAS: 7646-85-7	Zinc Chloride	2 mg/m³
CAS: 10102-40-6	Sodium Molybdate Dihydrate	3.8 mg/m³

· **PAC-2:**		
CAS: 13478-10-9	Ferrous Chloride	120 mg/m³
CAS: 7791-13-1	Cobalt Chloride Hexahydrate	25 mg/m³
CAS: 13446-34-9	Manganese Chloride	18 mg/m³
CAS: 7791-20-0	Nickel Chloride	5.2 mg/m³
CAS: 10043-35-3	boric acid	23 mg/m³
CAS: 13410-01-0	Sodium selenate	1.6 mg/m³
CAS: 10125-13-0	Copper (II) Chloride Dihydrate (Cupric Chloride Dihydrate)	89 mg/m³
CAS: 7646-85-7	Zinc Chloride	800 mg/m³
CAS: 10102-40-6	Sodium Molybdate Dihydrate	34 mg/m³

· **PAC-3:**		
CAS: 13478-10-9	Ferrous Chloride	710 mg/m³
CAS: 7791-13-1	Cobalt Chloride Hexahydrate	150 mg/m³
CAS: 13446-34-9	Manganese Chloride	290 mg/m³
CAS: 7791-20-0	Nickel Chloride	31 mg/m³
CAS: 10043-35-3	boric acid	830 mg/m³
CAS: 13410-01-0	Sodium selenate	2 mg/m³
CAS: 10125-13-0	Copper (II) Chloride Dihydrate (Cupric Chloride Dihydrate)	530 mg/m³
CAS: 7646-85-7	Zinc Chloride	4,800 mg/m³
CAS: 10102-40-6	Sodium Molybdate Dihydrate	210 mg/m³

7 Handling and storage

· **Handling:**

· **Precautions for safe handling** No special measures required.

· **Information about protection against explosions and fires:** No special measures required.

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· **Conditions for safe storage, including any incompatibilities**
· **Storage:**
· **Requirements to be met by storerooms and receptacles:** No special requirements.
· **Information about storage in one common storage facility:** Not required.
· **Further information about storage conditions:** Keep receptacle tightly sealed.
· **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 product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
· **Additional information:** The lists that were valid during the creation were used as basis.

· **Exposure controls**
· **Personal protective equipment:**
· **General protective and hygienic measures:**
The usual precautionary measures for handling chemicals should be followed.
· **Breathing equipment:** Not required.
· **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
· **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:** Goggles recommended during refilling.
· **Body protection:** Protective work clothing

9 Physical and chemical properties

· **Information on basic physical and chemical properties**
· **General Information**
· **Appearance:**

Form:	Liquid
Color:	Yellow to Brown
· **Odor:**	Odorless
· **Odor threshold:**	Not determined.

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· **pH-value:**	Not determined.
· **Change in condition**	
Melting point/Melting range:	0 °C (32 °F)
Boiling point/Boiling range:	100 °C (212 °F)
· **Flash point:**	Not applicable.
· **Flammability (solid, gaseous):**	Not applicable.
· **Decomposition temperature:**	Not determined.
· **Ignition temperature:**	Product is not selfigniting.
· **Danger of explosion:**	Product does not present an explosion hazard.
· **Explosion limits:**	
Lower:	Not determined.
Upper:	Not determined.
· **Vapor pressure at 20 °C (68 °F):**	23 hPa (17.3 mm Hg)
· **Density at 20 °C (68 °F):**	1 g/cm³ (8.345 lbs/gal)
· **Relative density**	Not determined.
· **Vapor density**	Not determined.
· **Evaporation rate**	Not determined.
· **Solubility in / Miscibility with**	
Water:	Fully miscible.
· **Partition coefficient (n-octanol/water):**	Not determined.
· **Viscosity:**	
Dynamic:	Not determined.
Kinematic:	Not determined.
· **Solvent content:**	
Water:	99.6 %
VOC content:	0.00 % 0.0 g/l / 0.00 lb/gal
Solids content:	0.4 %
· **Other information**	No further relevant information available.

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.

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11 Toxicological information

· **Information on toxicological effects**
· **Acute toxicity:**
· **Primary irritant effect:**
· **on the skin:** No irritant effect.
· **on the eye:** No irritating effect.
· **Sensitization:** No sensitizing effects known.
· **Additional toxicological information:**
The product is not subject to classification according to internally approved calculation methods for preparations:
When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.

· **Carcinogenic categories**

· **IARC (International Agency for Research on Cancer)**		
CAS: 7791-13-1	Cobalt Chloride Hexahydrate	2B
CAS: 7791-20-0	Nickel Chloride	1

· **NTP (National Toxicology Program)**		
CAS: 7791-20-0	Nickel Chloride	K

· **OSHA-Ca (Occupational Safety & Health Administration)**
None of the ingredients 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 1 (Self-assessment): slightly hazardous for water
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
· **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:** Smaller quantities can be disposed of with household waste.

· **Uncleaned packagings:**
· **Recommendation:** Disposal must be made according to official regulations.
· **Recommended cleansing agent:** Water, if necessary with cleansing agents.

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14 Transport information

· **UN-Number**	
· **DOT, IMDG, IATA**	Not regulated
· **UN proper shipping name**	
· **DOT, IATA**	Not regulated
· **IMDG**	Not Regulated
	Not regulated
· **Transport hazard class(es)**	
· **DOT, ADN, IMDG, IATA**	
· **Class**	Not regulated
· **Packing group**	
· **DOT, IMDG, IATA**	Not regulated
· **Environmental hazards:**	Not applicable.
· **Special precautions for user**	Not applicable.
· **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**	Not applicable.
· **UN "Model Regulation":**	Not regulated

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15 Regulatory information

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

· **Section 355 (extremely hazardous substances):**	
CAS: 13410-01-0	Sodium selenate

· **Section 313 (Specific toxic chemical listings):**	
CAS: 7791-13-1	Cobalt Chloride Hexahydrate
CAS: 13446-34-9	Manganese Chloride
CAS: 7791-20-0	Nickel Chloride
CAS: 13410-01-0	Sodium selenate
CAS: 7646-85-7	Zinc Chloride

· **TSCA (Toxic Substances Control Act):**	
Water	ACTIVE
boric acid	ACTIVE
Sodium selenate	ACTIVE
Zinc Chloride	ACTIVE

· **Hazardous Air Pollutants**	
CAS: 7791-13-1	Cobalt Chloride Hexahydrate

· **Proposition 65**

· **Chemicals known to cause cancer:**	
CAS: 7791-20-0	Nickel Chloride

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· **Chemicals known to cause reproductive toxicity for females:**
None of the ingredients is listed.

· **Chemicals known to cause reproductive toxicity for males:**

CAS: 7791-20-0	Nickel Chloride

· **Chemicals known to cause developmental toxicity:**

CAS: 7791-20-0	Nickel Chloride

· **Carcinogenic categories**

· **EPA (Environmental Protection Agency)**

CAS: 13446-34-9	Manganese Chloride	D
CAS: 10043-35-3	boric acid	I (oral)

· **TLV (Threshold Limit Value)**

CAS: 10043-35-3	boric acid	A4

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

CAS: 7791-20-0	Nickel Chloride

· **GHS label elements** Not Applicable
· **Hazard pictograms** Not Applicable
· **Signal word** Not Applicable
· **Hazard statements** Not Applicable
· **Precautionary statements**
If swallowed: Call a poison center/doctor if you feel unwell.
If on skin: Wash with plenty of water.
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Store in a closed container.
Dispose of contents/container in accordance with local/regional/national/international regulations.
· **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

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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 0.0 05-03-2024: Creation date for SDS. CMC/STN
05/03/2024
· **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)
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
NIOSH: National Institute for Occupational Safety
OSHA: Occupational Safety & Health
TLV: Threshold Limit Value

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PEL: Permissible Exposure Limit
REL: Recommended Exposure Limit
· **** Data compared to the previous version altered.***