Safety Data Sheet

8 Mix anions in water

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*Prepared according to American OSHA HCS-2024 (29 CFR 1910.1200)

1 Identification

Product identifier

Product Name	8 Mix anions in water
Cat No.	BWB2109-2016
CAS No.	Not applicable
EC No.	Not applicable
Molecular Formula	Not applicable

Recommended use of the product and restrictions on use

Relevant identified uses	Please consult manufacturer.
Uses advised against	Please consult manufacturer.

Details of the supplier of the Safety Data Sheet

Name of the company	Weiyel Inc
Address of the company	Hedian Light Industrial Park, Chengguan Town, Shangcheng County, Xinyang City, Henan Province, China
Post code	465350
Telephone number	010-58103678
Fax number	010-84840368
E-mail address	info@weiyel.com

Emergency phone number

Emergency phone number	010-58103678

2 Hazard(s) identification

Hazard classification according to 29 CFR 1910.1200

According to OSHA HCS-2024, not classified as a hazardous chemical.

Label elements

Hazard pictograms	Not applicable
Signal word	Not applicable

Hazard statements

Hazard statements	Not applicable

Precautionary statements

- Prevention

Prevention	Not applicable

◆ Response

Response	Not applicable

◆ Storage

Storage	Not applicable

◆ Disposal

Disposal	Not applicable

Other hazards

	Not applicable.

Hazard description

◆ Physical and chemical hazards

	No information available

◆ Health hazards

Inhaled	Inhalation of the product may produce adverse health effects or irritation of the respiratory tract following discomfort.
Ingestion	Accidental ingestion of the product may be harmful to the health of the individual.
Skin Contact	Entry into the blood-stream, through, for example, cuts, abrasions or lesions, may produce systemic injury with harmful effects.
Eye	This product may cause temporary discomfort following direct contact with the eye.

◆ Environmental hazards

	Please refer to 12th chapter of SDS.

3 Composition/information on ingredients

Substance/mixture

	Mixture

Component	CAS No.	EC No.	Concentration (wt, %)
Sodium chloride	7647-14-5	231-598-3	0.01
Sodium fluoride	7681-49-4	231-667-8	0.01
Potassium bromide	7758-02-3	231-830-3	0.01
Potassium dihydrogenorthophosphate	7778-77-0	231-913-4	0.01
Potassium nitrate	7757-79-1	231-818-8	0.01
Potassium sulfate	7778-80-5	231-915-5	0.01
Sodium nitrite	7632-00-0	231-555-9	0.01
Sodium sulphite	7757-83-7	231-821-4	0.01
Water	7732-18-5	231-791-2	99.92

4 First-aid measures

Description of first aid measures

General advice	Immediate medical attention is required. Show this safety data sheet (SDS) to the doctor in attendance.
Eye contact	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician if feel uncomfortable.
Skin contact	Take off contaminated clothing and shoes immediately. Wash off with plenty of soap and water for at least 15 minutes and consult a physician if feel uncomfortable.
Ingestion	Never give anything by mouth to an unconscious person. Call a physician or Poison Control Center immediately.
Inhalation	Move victim into fresh air. If breathing is difficult, give oxygen. Do not use mouth to mouth resuscitation if victim ingested or inhaled the substance. If not breathing, give artificial respiration and consult a physician immediately.
Protecting of first-aiders	Ensure that medical personnel are aware of the substance involved. Take precautions to protect themselves and prevent spread of contamination.

Most important symptoms/effects, acute and delayed

1	Substance accumulation, in the human body, may occur and may cause some concern following repeated or long-term occupational exposure.

Indication of any immediate medical attention and special treatment needed

1	Treat symptomatically.
2	Symptoms may be delayed.

5 Fire-fighting measures

Extinguishing media

Suitable extinguishing media	Use extinguishing media suitable for surrounding area.
Unsuitable extinguishing media	There is no restriction on the type of extinguisher which may be used.

Specific hazards arising from the substance or mixture

1	Development of hazardous combustion gases or vapor possible in the event of fire.
2	May expansion or decompose explosively when heated or involved in fire.

Special protective equipment and precautions for fire-fighters

1	As in any fire, wear self-contained breathing apparatus (MSHA/NIOSH approved or equivalent) and full protective gear.
2	Fight fire from a safe distance, with adequate cover.
3	Prevent fire extinguishing water from contaminating surface water or the ground water system.

6 Accidental release measures

Personal precautions, protective equipment and emergency procedures

1	Use personal protective equipment,do not breathe gas/mist/vapour/spray.
2	Ensure adequate ventilation. Remove all sources of ignition. Take precautionary measures against static discharges.
3	Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.

Environmental precautions

1	Prevent further leakage or spillage if safe to do so.
2	Discharge into the environment must be avoided.

Methods and materials for containment and cleaning up

1	Cut off the source of the leak as much as possible.
2	Keep leaks in a ventilated place.
3	Absorb spilled material in dry sand or inert absorbent. In case of large amount of spillage, contain a spill by bunding.
4	Remove all sources of ignition. Use spark-proof tools and explosion-proof equipment.
5	Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container.

7 Handling and storage

Precautions for safe handling

1	Handling is performed in a well ventilated place.
2	Wear suitable protective equipment.
3	Avoid contact with skin and eyes.
4	Keep away from heat/sparks/open flames/ hot surfaces.

Conditions for safe storage, including any incompatibilities

1	Keep containers tightly closed.
2	Keep containers in a dry, cool and well-ventilated place.
3	Keep away from heat/sparks/open flames/hot surfaces.
4	Store away from incompatible materials and foodstuff containers.

8 Exposure controls/personal protection

Control parameters

◆Occupational exposure limit values

Component	Country/Region	Limit value - Eight hours		Limit value - Short term	
		ppm	mg/m³	ppm	mg/m³
Sodium fluoride	USA - ACGIH	-	2.5(as F)	-	-
	France	-	2	-	-
	South Korea	-	2.5	-	-

Engineering controls

1	Ensure adequate ventilation, especially in confined areas.
2	Ensure that eyewash stations and safety showers are close to the workstation location.
3	Use explosion-proof electrical/ventilating/lighting/equipment.
4	Set up emergency exit and necessary risk-elimination area.

Personal protection equipment

General requirement	No special requirements, please see the description below.
Eye protection	In general situation, eye protection is not needed. In the production process, when contacting with vapour or dust, tightly fitting safety goggles.
Hand protection	In general situation, hand protection is not needed.
Respiratory protection	In general situation, respiratory protection is not needed. If exposure limits are exceeded or if irritation or other symptoms are experienced, wear dust proof mask

	or gas defence mask.
Skin and body protection	In general situation, skin and body protection are not needed.

9 Physical and chemical properties and safety characteristics

Physical and chemical properties

Appearance (physical state, color, etc.)	colorless liquid
Odor	No special odor
Odor threshold	No information available
pH	No information available
Melting point/freezing point(°C)	No information available
Initial boiling point and boiling range(°C)	>35
Flash point(Closed cup,°C)	No information available
Evaporation rate	No information available
Flammability	Not flammable
Upper/lower explosive limits[%(v/v)]	Upper limit : No information available ; Lower limit : No information available
Vapor pressure	No information available
Vapor density(Air = 1)	No information available
Relative density(Water=1)	No information available
Solubility	Very soluble in water
n-octanol/water partition coefficient	No information available
Auto-ignition temperature(°C)	No information available
Decomposition temperature(°C)	No information available
Kinematic viscosity	No information available

10 Stability and reactivity

Stability and reactivity

Reactivity	Contact with incompatible substances can cause decomposition or other chemical reactions.
Chemical stability	Stable under proper operation and storage conditions.
Possibility of hazardous reactions	In contact with organic peroxides cause a fire immediately. Mixture with active metal powders may explode intensely if heated. In contact with active metals (alkali metals, Na, Ca etc.) causes a reaction and release hydrogen.
Conditions to avoid	Incompatible materials, heat, flame and spark.
Incompatible materials	Organic peroxides. Active metal powder, non-metal elemental powder, sulfide, metal amino compound, metal acetylene compound, phenols, metal sulfamate, metal cyanide, thiocyanate, phosphide, hypophosphite, carboxylic acid, carboxylic anhydride , Carboxylic acid esters, ethanol, reducing agents and performic acid. Alkali, sodium, calcium, and other active metal, halogen, metal oxide, nonmetal oxide, acyl halide and metal phosphide.
Hazardous decomposition products	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

11 Toxicological information

Acute toxicity

Component	LD_{50}(oral)	LD_{50}(dermal)	LC_{50}(inhalation,4h)
Sodium nitrite	180mg/kg(Rat)	No information available	5.5mg/L(Rat)
Potassium bromide	3070mg/kg(Rat)	No information available	No information available
Sodium sulphite	3560mg/kg(Rat)	No information available	No information available
Potassium dihydrogenorthophosphate	No information available	> 4640mg/kg(Rabbit)	No information available
Potassium sulfate	6600mg/kg(Rat)	No information available	No information available
Sodium fluoride	180mg/kg(Rat)	No information available	No information available
Potassium nitrate	3750mg/kg(Rat)	No information available	No information available
Sodium chloride	3000mg/kg(Rat)	> 10000mg/kg(Rabbit)	No information available

Carcinogenicity

Component	List of carcinogens by the IARC Monographs	Report on Carcinogens by NTP	OSHA Carcinogen List
Sodium chloride	Not Listed	Not Listed	Not Listed
Sodium fluoride	Not Listed	Not Listed	Not Listed
Potassium bromide	Not Listed	Not Listed	Not Listed
Potassium dihydrogenorthophosphate	Not Listed	Not Listed	Not Listed
Potassium nitrate	Not Listed	Not Listed	Not Listed
Potassium sulfate	Not Listed	Not Listed	Not Listed
Sodium nitrite	Not Listed	Not Listed	Not Listed
Sodium sulphite	Not Listed	Not Listed	Not Listed
Water	Not Listed	Not Listed	Not Listed

Others

8 Mix anions in water	
Skin corrosion/irritation	Based on available data, the classification criteria are not met
Serious eye damage/irritation	Based on available data, the classification criteria are not met
Skin sensitization	Based on available data, the classification criteria are not met
Respiratory sensitization	Based on available data, the classification criteria are not met
Reproductive toxicity	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
Germ cell mutagenicity	Based on available data, the classification criteria are not met

12 Ecological information

Acute aquatic toxicity

Component	Fish	Crustaceans	Algae or other aquatic plants
Sodium nitrite	LC_{50} : 0.675mg/L (96h)(Fish)	No information available	No information available
Potassium bromide	LC_{50} :440mg/L (96h)(Fish)	No information available	No information available
Sodium sulphite	LC_{50} : 149.5mg/L (96h)(Fish)	No information available	No information available
Potassium dihydrogenorthophosphate	LC_{50} : > 100mg/L (96h)(Fish)	EC_{50} : > 100mg/L (48h)(Crustaceans)	ErC_{50} : > 100mg/L (72h)(Algae)
Potassium sulfate	LC_{50} :680mg/L (96h)(Fish)	No information available	No information available
Sodium fluoride	LC_{50} : 51mg/L (96h)(Fish)	EC_{50} : 98mg/L (48h)(Crustaceans)	ErC_{50} : 900mg/L (96h)(Algae)
Potassium nitrate	LC_{50} : > 100mg/L (96h)(Fish)	EC_{50} : 490mg/L (48h)(Crustaceans)	No information available
Sodium chloride	LC_{50} : 5840mg/L (96h)(Fish)	EC_{50} : 2120mg/L (48h)(Crustaceans)	No information available

Chronic aquatic toxicity

Component	Fish	Crustaceans	Algae or other aquatic plants
Sodium fluoride	No information available	No information available	NOEC : ≧210mg/L(Algae)
Potassium nitrate	NOEC : 58mg/L(Fish)	No information available	No information available

Persistence and degradability

Component	Persistence (water/soil)	Persistence (air)
Sodium chloride	Low	Low
Sodium fluoride	Low	Low
Potassium bromide	High	High
Sodium sulphite	Low	Low

Bioaccumulative potential

Component	Bioaccumulative potential	Comments
Sodium chloride	Low	Log Kow=0.5392
Sodium fluoride	Low	BCF=6.4
Potassium bromide	Low	Log Kow=-0.3713
Sodium sulphite	Low	Log Kow=-4

Mobility in soil

Component	log Koc	Remark
Sodium chloride	1.155	
Sodium fluoride	1.155	

Potassium bromide	-1.00	20 ℃
Sodium sulphite	0.476	

13 Disposal considerations

Disposal considerations

Waste chemicals	Before disposal should refer to the relevant national and local laws and regulation. Recommend the use of incineration disposal.
Contaminated packaging	Containers may still present chemical hazard when empty. Keep away from hot and ignition source of fire. Return to supplier for recycling if possible.
Disposal recommendations	Refer to section waste chemicals and contaminated packaging.

14 Transport information

Label and Mark

Transporting Label	Not applicable

IMDG-CODE

IMDG-CODE	NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

IATA-DGR

IATA-DGR	NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

UN-ADR

UN-ADR	NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Transport in bulk according to IMO instruments

◆Transport in bulk according to Annex II of MARPOL and the IBC code

Not Available

◆Transport in bulk in accordance with MARPOL Annex V and the IMSBC Code

Not Available

◆Transport in bulk in accordance with the IGC Code

Not Available

Others

Precautions for transport	Transport vehicles should be equipped with the appropriate variety and quantity of fire equipment and emergency equipment leakage during transport. Before transport, should be preceded by checking whether container integrity, sealing. The transport unit must be placarded and marked in accordance with relevant transporting requirements.

15 Regulatory information

International chemical inventory

Component	A	B	C	D	E	F	G	H	I	J	K	L	M
Sodium chloride	√	√	√	√	√	√	√	√	√	√	√	√	√
Sodium fluoride	√	√	√	√	√	√	√	√	√	√	√	√	√

Potassium bromide	√	√	√	√	√	√	√	√	√	×	√	√	√
Potassium dihydrogenorthophosphate	√	√	√	√	√	√	√	√	√	√	√	√	√
Potassium nitrate	√	√	√	√	√	√	√	√	√	√	√	√	√
Potassium sulfate	√	√	√	√	√	√	√	√	√	√	√	√	√
Sodium nitrite	√	√	√	√	√	√	√	√	√	√	√	√	√
Sodium sulphite	√	√	√	√	√	√	√	√	√	√	√	√	√
Water	√	√	√	√	√	√	√	√	√	√	√	√	√

【A】 China Inventory of Existing Chemical Substances(IECSC)
【B】 European Inventory of Existing Commercial Chemical Substances(EC inventory)
【C】 United States Toxic Substances Control Act Inventory(TSCA)
【D】 Canadian Domestic Substances List(DSL)
【E】 New Zealand Inventory of Chemicals(NZIoC)
【F】 Philippines Inventory of Chemicals and Chemical Substances(PICCS)
【G】 Korea Existing Chemicals Inventory(KECL)
【H】 Australian. Inventory of Industrial Chemical (AIICS)
【I】 Japan Inventory of Existing & New Chemical Substances(ENCS)
【J】 Thailand Existing Chemicals Inventory(TECI)
【K】 Mexico National Inventory of Chemical Substances (INSQ)
【L】 Russia Inventory of Existing Substances (DRAFT)
【M】 Inventory of Existing Chemical Substances in Taiwan, China (TCSI)

List of Chemical Substances under International Conventions

Component	A	B	C
Sodium chloride	×	×	×
Sodium fluoride	×	×	×
Potassium bromide	×	×	×
Potassium dihydrogenorthophosphate	×	×	×
Potassium nitrate	×	×	×
Potassium sulfate	×	×	×
Sodium nitrite	×	×	×
Sodium sulphite	×	×	×
Water	×	×	×

【A】 The Montreal Protocol on Substances that Deplete the Ozone Layer
【B】 Stockholm Convention on Persistent Organic Pollutants (POPs)
【C】 Rotterdam Convention on the prior informed consent procedure for certain hazardous chemicals and pesticides in international trade

US chemical inventory

Component	A	B	C	D	E	F	G	H
Sodium chloride	×	×	×	×	×	×	×	×
Sodium fluoride	×	×	√	√	√	√	√	×
Potassium bromide	×	×	×	×	×	×	×	×
Potassium	×	×	×	×	×	×	×	×

dihydrogenorthophosphate								
Potassium nitrate	×	×	×	√	√	√	√	×
Potassium sulfate	×	×	×	×	×	×	×	×
Sodium nitrite	×	×	√	√	√	√	√	×
Sodium sulphite	×	×	×	×	×	×	×	×
Water	×	×	×	×	×	×	×	×

[A] US Clean Air Act (CAA)- Section 112, Hazardous Air Pollutants
[B] US SARA 302- Extremely Hazardous Substance List
[C] US CERCLA- Hazardous Substances List
[D] US Massachusetts Right-to-Know Substance List
[E] US New Jersey Right to Know Hazardous Substance List
[F] US Pennsylvania Right to Know Hazardous Substance List
[G] US New York City Right-to-Know Hazardous Substance List
[H] US California Proposition 65 List

Note:
"√" Indicates that the substance included in the regulations.
"×" No data or not included in the regulations.

16 Other information

Information on revision

Creation Date	2025/09/24
Revision Date	-
Reason for revision	-

Reference

[1] IPCS: The International Chemical Safety Cards (ICSC), website: http://www.ilo.org/dyn/icsc/showcard.home.
[2] IARC, website: http://www.iarc.fr/.
[3] OECD: The Global Portal to Information on Chemical Substances, website: https://www.echemportal.org/echemportal/.
[4] CAMEO Chemicals, website: http://cameochemicals.noaa.gov/search/simple.
[5] NLM: ChemIDplus, website: http://chem.sis.nlm.nih.gov/chemidplus/chemidlite.jsp.
[6] EPA: Integrated Risk Information System, website: http://cfpub.epa.gov/iris/.
[7] U.S. Department of Transportation: ERG, website: http://www.phmsa.dot.gov/hazmat/library/erg.
[8] Germany GESTIS-database on hazard substance, website: http://gestis-en.itrust.de/.

Abbreviations and acronyms

CAS	Chemical Abstracts Service	UN	The United Nations
PC-STEL	Short term exposure limit	OECD	Organization for Economic Co-operation and Development
PC-TWA	Time Weighted Average	IMDG-CODE	International Maritime Dangerous Goods CODE
MAC	Maximum Allowable Concentration	IARC	International Agency for Research on Cancer
DNEL	Derived No Effect Level	ICAO	International Civil Aviation Organization
PNEC	Predicted No Effect Concentration	IATA	International Air Transportation Association
NOEC	No Observed Effect Concentration	ACGIH	American Conference of Governmental Industrial Hygienists
LC_{50}	Lethal Concentration 50%	NFPA	National Fire Protection Association
LD_{50}	Lethal Dose 50%	NTP	National Toxicology Program
EC_{50}	Effective Concentration 50%	PBT	Persistent, Bioaccumulative, Toxic
EC_X	Effective Concentration X%	vPvB	very Persistent, very Bioaccumulative
P_{OW}	Partition coefficient Octanol: Water	CMR	Carcinogens, mutagens or substances toxic to reproduction
BCF	Bioconcentration factor	RPE	Respiratory Protective Equipment
ED	Endocrine disruptor	HCS	Hazard Communication Standard

Disclaimer

This Safety Data Sheet (SDS) was prepared according to OSHA HCS-2024. The data included was derived from international authoritative database and provided by the enterprise. Other information was based on the present state of our knowledge. We try to ensure the correctness of all information. However, due to the diversity of information sources and the limitations of our knowledge, this document is only for user's reference. Users should make their independent judgment of suitability of this information for their particular purposes. We do not assume responsibility for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product.