Electrolyte Formula F30

Safety Data Sheet

According to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012 and the Hazardous Products Regulations (HPR) WHMIS 2015

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Version: 2.0

SECTION 1: Identification

1.1. Identification

Product form : Mixture
Product name : Electrolyte Formula F30

1.2. Recommended use and restrictions on use

Recommended use : Electrolyte solution

1.3. Supplier

Manufacturer
Marking Methods
301 S Raymond Avenue
Alhambra, CA 91803-1531
T (626) 282 8823

1.4. Emergency telephone number

Emergency number : CHEMTREC 1 (800) 424-9300
CHEMTREC International +1 (703) 527-3887 24 hr

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS classification

Acute Tox. 4 (Oral)
Skin Corr. 1C
Eye Dam. 1
Repr. 1B
HHNOC 1

2.2. GHS Label elements, including precautionary statements

GHS labelling

Hazard pictograms (GHS) :

Signal word (GHS) : Danger
Hazard statements (GHS) : Harmful if swallowed.
Causes severe skin burns and eye damage.
Causes serious eye damage.
May damage fertility or the unborn child.
Causes severe damage to the respiratory tract

Precautionary statements (GHS) : Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Do not breathe dust/fume/gas/mist/vapours/spray.
Wash hands, forearms and face thoroughly after handling.
Do not eat, drink or smoke when using this product
Wear protective gloves/protective clothing/eye protection/face protection.

If swallowed: rinse mouth. Do NOT induce vomiting.
If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse.
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.
Immediately call a poison center or doctor.
If exposed or concerned: Get medical advice/attention.
Store locked up.
Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

2.3. Other hazards which do not result in classification

No additional information available

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%
Ammonium chloride	CAS-No.: 12125-02-9	15 – 40
Ammonium bifluoride	CAS-No.: 1341-49-7	5 – 10
2-Ethylhexyl sodium sulfate	CAS-No.: 126-92-1	0.5 – 1.5
Methyl salicylate	CAS-No.: 119-36-8	0.1 – 1

***Chemical name, CAS number and/or exact concentration have been withheld as a trade secret**

SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures after inhalation : If inhaled: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor.

First-aid measures after skin contact : If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse. Immediately call a POISON CENTER or doctor.

First-aid measures after eye contact : IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor.

First-aid measures after ingestion : IF SWALLOWED: rinse mouth. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Immediately call a POISON CENTER or doctor.

4.2. Most important symptoms and effects (acute and delayed)

Symptoms/effects after inhalation : May cause irritation to the respiratory tract. Causes burns to the respiratory system.

Symptoms/effects after skin contact : Causes severe skin burns. Symptoms may include redness, pain, blisters.

Symptoms/effects after eye contact : Causes serious eye damage. Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva. May cause burns.

Symptoms/effects after ingestion : Harmful if swallowed. May cause burns or irritation of the linings of the mouth, throat, and gastrointestinal tract.

4.3. Immediate medical attention and special treatment, if necessary

Symptoms may be delayed. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media	:	Use extinguishing media appropriate for surrounding fire.
Unsuitable extinguishing media	:	Do not use water jet.

5.2. Specific hazards arising from the chemical

Fire hazard	:	Products of combustion may include, and are not limited to: oxides of carbon. Nitrogen oxides. Halogenated compounds. May release corrosive or irritating fumes.

5.3. Special protective equipment and precautions for fire-fighters

Protection during firefighting	:	Keep upwind of fire. Wear full fire fighting turn-out gear (full Bunker gear) and respiratory protection (SCBA).

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures	:	Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel.

6.1.1. For non-emergency personnel

No additional information available

6.1.2. For emergency responders

No additional information available

6.2. Environmental precautions

Prevent entry to sewers and public waters.

6.3. Methods and material for containment and cleaning up

For containment	:	Absorb and/or contain spill with inert material (sand, vermiculite or other appropriate material), then place in suitable container. Do not flush into surface water or sewer system. Wear recommended personal protective equipment.
Methods for cleaning up	:	Sweep or shovel spills into appropriate container for disposal. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Provide ventilation.

6.4. Reference to other sections

For further information refer to section 8: "Exposure controls/personal protection".

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get in eyes, on skin, or on clothing. Do not breathe dust/fume/gas/mist/vapours/spray. Do not swallow. When using do not eat, drink or smoke. Avoid exposure during pregnancy. Use only outdoors or in a well-ventilated area. Handle and open container with care.

Hygiene measures : Take off immediately all contaminated clothing and wash it before reuse. Contaminated work clothing should not be allowed out of the workplace. Wash hands, forearms and face thoroughly after handling.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep out of the reach of children. Store locked up. Keep only in the original container. Keep away from : Alkalis. Keep away from food, drink and animal feedingstuffs. Do not store in unlabelled containers. Containers which are opened should be properly resealed and kept upright to prevent leakage. Store tightly closed in a dry, cool and well-ventilated place.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Electrolyte Formula F30

No additional information available

Ammonium chloride (12125-02-9)

USA - ACGIH - Occupational Exposure Limits

ACGIH OEL TWA	10 mg/m³ (fume)
ACGIH OEL STEL	20 mg/m³ (fume)

USA - NIOSH - Occupational Exposure Limits

NIOSH REL TWA	10 mg/m³ (fume)
NIOSH REL STEL	20 mg/m³ (fume)

Ammonium bifluoride (1341-49-7)

No additional information available

2-Ethylhexyl sodium sulfate (126-92-1)

No additional information available

Methyl salicylate (119-36-8)

No additional information available

8.2. Appropriate engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station. Provide readily accessible eye wash stations and safety showers.

Environmental exposure controls : Avoid release to the environment.

8.3. Individual protection measures/Personal protective equipment

Hand protection:
Wear suitable gloves resistant to chemical penetration

Eye protection:
Wear eye/face protection

Skin and body protection:
Wear suitable protective clothing

Respiratory protection:
In case of insufficient ventilation, wear suitable respiratory equipment. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Other information:

Handle in accordance with good industrial hygiene and safety procedures. Do not eat, drink or smoke when using this product.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	:	Liquid
Appearance	:	Clear liquid.
Colour	:	Clear
Odour	:	No data available
Odour threshold	:	No data available
pH	:	2.5
Melting point	:	0 °C (32 °F)
Freezing point	:	No data available
Boiling point	:	100 °C (212 °F)
Flash point	:	No data available
Relative evaporation rate (butylacetate=1)	:	No data available
Flammability (solid, gas)	:	Not flammable.
Vapour pressure	:	No data available
Relative vapour density at 20 °C	:	> 1 [Air = 1]
Relative density	:	1.06
Solubility	:	Miscible with water.
Partition coefficient n-octanol/water	:	No data available
Auto-ignition temperature	:	No data available
Decomposition temperature	:	No data available
Viscosity, kinematic	:	No data available
Viscosity, dynamic	:	No data available
Explosive limits	:	No data available
Explosive properties	:	No data available
Oxidising properties	:	No data available

9.2. Other information

VOC content	:	1.7 % (w/w)

SECTION 10: Stability and reactivity

10.1. Reactivity

No dangerous reactions known under normal conditions of use.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

Heat. Incompatible materials.

10.5. Incompatible materials

Strong oxidizing agents. Strong reducing agents. Strong bases. Alkalis.

10.6. Hazardous decomposition products

May include, and are not limited to: oxides of carbon. Nitrogen oxides. Halogenated compounds.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral) : Harmful if swallowed.
Acute toxicity (dermal) : Not classified.
Acute toxicity (inhalation) : Not classified.

Electrolyte Formula F30	
ATE CA (oral)	1326.204 mg/kg bodyweight

Ammonium chloride (12125-02-9)	
LD50 oral rat	1650 mg/kg
LD50 dermal rat	> 2000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 434 (Acute Dermal Toxicity - Fixed Dose Procedure)
ATE CA (oral)	1650 mg/kg bodyweight

Ammonium bifluoride (1341-49-7)	
LD50 oral rat	130 mg/kg
ATE CA (oral)	130 mg/kg bodyweight

2-Ethylhexyl sodium sulfate (126-92-1)	
LD50 oral rat	4 g/kg
LD50 dermal rat	> 2000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity)
ATE CA (oral)	4000 mg/kg bodyweight

Methyl salicylate (119-36-8)	
LD50 oral rat	887 mg/kg
LD50 dermal rabbit	> 5000 mg/kg

Methyl salicylate (119-36-8)	
ATE CA (oral)	887 mg/kg bodyweight

Skin corrosion/irritation : Causes severe skin burns.
pH: 2.5

Serious eye damage/irritation : Causes serious eye damage.
pH: 2.5

Respiratory or skin sensitisation : Not classified.

Germ cell mutagenicity : Not classified.

Carcinogenicity : Not classified.

Reproductive toxicity : May damage fertility or the unborn child.

STOT-single exposure : Not classified.

Ammonium bifluoride (1341-49-7)	
STOT-single exposure	May cause respiratory irritation.

STOT-repeated exposure : Not classified.

Ammonium chloride (12125-02-9)	
NOAEL (oral, rat, 90 days)	≈ 1695.7 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)

2-Ethylhexyl sodium sulfate (126-92-1)	
LOAEL (oral, rat, 90 days)	1016 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)
NOAEL (oral, rat, 90 days)	488 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)

Aspiration hazard : Not classified.

Symptoms/effects after inhalation : May cause irritation to the respiratory tract. Causes burns to the respiratory system.

Symptoms/effects after skin contact : Causes severe skin burns. Symptoms may include redness, pain, blisters, serious skin burns.

Symptoms/effects after eye contact : Causes serious eye damage. Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva. May cause burns.

Symptoms/effects after ingestion : Harmful if swallowed. May cause burns or irritation of the linings of the mouth, throat, and gastrointestinal tract.

Other information : Likely routes of exposure: ingestion, inhalation, skin and eye.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : May cause long-term adverse effects in the aquatic environment.

Ammonium chloride (12125-02-9)	
LC50 - Fish [1]	209 mg/l (Exposure time: 96 h - Species: Cyprinus carpio [static])
EC50 - Crustacea [1]	136.6 mg/l Test organisms (species): Daphnia magna
LC50 - Fish [2]	46.27 mg/l Test organisms (species): Prosopium williamsoni
EC50 - Crustacea [2]	98.5 mg/l Test organisms (species): other:Ceriodaphnia acanthina

Ammonium bifluoride (1341-49-7)	
LC50 - Fish [1]	421.4 mg/l Test organisms (species): no data
NOEC chronic fish	1.2 mg/l Test organisms (species): Oncorhynchus gorbuscha Duration: '61 d'

2-Ethylhexyl sodium sulfate (126-92-1)	
LC50 - Fish [1]	> 100 mg/l Test organisms (species): Danio rerio (previous name: Brachydanio rerio)
EC50 - Crustacea [1]	483 mg/l Test organisms (species): Daphnia magna
LOEC (chronic)	6.86 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
NOEC (chronic)	1.4 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
NOEC chronic fish	≥ 1.357 mg/l Test organisms (species): Pimephales promelas Duration: '42 d'

Methyl salicylate (119-36-8)	
LC50 - Fish [1]	19.8 mg/l Test organisms (species): Pimephales promelas
EC50 - Crustacea [1]	28 mg/l Test organisms (species): Daphnia magna
LC50 - Fish [2]	1370 mg/l Test organisms (species): Pimephales promelas

12.2. Persistence and degradability

Electrolyte Formula F30	
Persistence and degradability	Not established.

12.3. Bioaccumulative potential

Electrolyte Formula F30	
Bioaccumulative potential	Not established.

Ammonium bifluoride (1341-49-7)	
BCF - Fish [1]	(completely dissociated in water)

Methyl salicylate (119-36-8)	
Partition coefficient n-octanol/water	2.55

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

Other information : No other effects known.

SECTION 13: Disposal considerations

13.1. Disposal methods

Product/Packaging disposal recommendations : Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation. The generation of waste should be avoided or minimized wherever possible.

Additional information : Empty containers may contain residues which are hazardous.

SECTION 14: Transport information

14.1. UN number

UN-No.(DOT/TDG) : UN1760

14.2. UN proper shipping name

Proper Shipping Name (DOT/TDG) : Corrosive liquids, n.o.s. (Ammonium bifluoride)

14.3. Transport hazard class(es)

Department of Transportation (DOT) and Transportation of Dangerous Goods (TDG)

Class (DOT/TDG) : 8

Hazard labels (DOT/TDG) :

14.4. Packing group

Packing group (DOT/TDG) III

14.5. Environmental hazards

Other information : No supplementary information available.

14.6. Special precautions for user

Special transport precautions : Do not handle until all safety precautions have been read and understood.

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15: Regulatory information

15.1. US Federal regulations

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory.

Ammonium chloride (12125-02-9)	
CERCLA RQ	5000 lb

Ammonium bifluoride (1341-49-7)	
CERCLA RQ	100 lb

acetic acid (64-19-7)	
CERCLA RQ	5000 lb

All components of this product are listed, or excluded from listing, on the Canadian DSL (Domestic Substances List) and NDSL (Non-Domestic Substances List) inventories.

15.2. International regulations

No additional information available

15.3. US State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

Component	State or local regulations
Ammonium chloride(12125-02-9)	U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - Pennsylvania - RTK (Right to Know) List; U.S. - Massachusetts - Right To Know List; U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List
acetic acid(64-19-7)	U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - Pennsylvania - RTK (Right to Know) List; U.S. - Massachusetts - Right To Know List; U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List
Ammonium bifluoride(1341-49-7)	U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - Pennsylvania - RTK (Right to Know) List; U.S. - Massachusetts - Right To Know List; U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List
Methyl salicylate(119-36-8)	U.S. - Pennsylvania - RTK (Right to Know) List

SECTION 16: Other information

According to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012 and the Hazardous Products Regulations (HPR) WHMIS 2015

Revision date : 05/14/2021

Other information : None.

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