Revision Date: June 15, 2017

SAFETY DATA SHEET
POLYQUATERNIUM-10 VS1000-2500

1. PRODUCT INFORMATION AND COMPANY IDENTIFICATION

Product Name:	Polyquaternium-10 Vs1000-2500
INCI Name:	Cationic Hydroxyethyl cellulose, Water, Sodium Acetate, Sodium Chloride, Isopropanol
CAS Number:	68610-92-4, 7732-18-5, 127-09-3, 7647-14-5, 67-63-0
Recommended Use:	Cosmetic & Personal care ingredients
Company:	Chemistry Connection 253 Sturgis Road Conway, AR 72034 Phone: 501-470-9689

Emergency Phone Number

Emergency:	Chemtrec: 800-424-9300

2. HAZARD IDENTIFICATION

GHS Classification :

Skin irritation (Category 2)
Eye irritation (Category 2)

Symbol

Signal word : Warning

Hazard statement :

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H335 May cause respiratory irritation

Precautionary statement

Prevention

P261 Avoid breathing dust/fume/gas/mist/vapours/spray

P281 Use personal protective equipment as required.

Response

P302+352	IF ON SKIN: Wash with soap and water
P305+351+338	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

Storage

P403+P233	Store in a well ventilated place. Keep container tightly closed

Disposal

P501	Dispose of contents/container in accordance with local/ regional/national/international regulations (to be specified).

3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient(s)	CAS #	Percent (% w/w)
Cationic Hydroxyethyl cellulose	68610-92-4	≥91.0
Water	7732-18-5	≤5.5
Sodium Acetate	127-09-3	≤1.5
Sodium Chloride	7647-14-5	≤1.5
Isopropanol	67-63-0	≤0.5

4. FIRST AID MEASURES

After eye contact
Flush eyes with running water for at least 15 minutes.
If needed, seek medical attention.

After skin contact
Wash skin with soap and running water for at least 15 minutes.
If needed, seek medical attention.

After inhalation
Move victim to fresh air.
Give artificial respiration if breathing has stopped.
If needed, seek medical attention.

After swallowing
Drink 1 or 2 glasses of water.
Immediately see a physician.
Never give anything by mouth to an unconscious person.

Notes to physician
Ensure that medical personnel are aware of the materials involved and take precautions to protect themselves.

Important symptoms and effects, both acute and delayed.
To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

5. FIRE FIGHTING MEASURES

Extinguishing media

Suitable extinguishing agents :

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide
Use extinguishing media suitable for surrounding fire.

Unsuitable extinguishing agents : Do NOT use straight streams of water.

Large Fires : Use dry chemical or carbon dioxide.

Hazardous combustion products : Hydrogen chloride, Nitrogen oxides(NOx)

Protection of firefighters

Specific hazards arising from the chemical : Combustion generates fumes of the followings : Hydrogen chloride, Nitrogen oxides.

Protective equipment for firefighters :
Firefighters should wear self-contained breathing apparatus (SCBA).
Structural firefighter’s protective clothing will only provide limited protection.

General fire hazards
Wear self-contained breathing apparatus (SCBA) and protective suit.
Cool containers/tanks with spray water.
Do not breathe fumes.
Contain run-off.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions
Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.
No danger almost exists as adding agent of detergents.
Do not touch or walk through spilled material.
Use personal protective equipment.
Avoid dust formation, breathing vapors, mist or gas and breathing dust.
Ensure adequate ventilation.
Evacuate personnel to safe areas.
Wash off in clean water.

Environmental precautions
Atmosphere : Use with adequate ventilation.
Land : Do not discharge into the subsoil/soil.
Underwater : Do not flush into drains/surface waters/underwater/public water course.

Methods for cleaning up
Collect as much as possible in a clean container for (preferable) reuse or disposal.
Prevent spillage from entering drains or water courses. Surface may become slippery after spillage.
Use dry clean up procedures and avoid generating dust.
Collect residues in container for disposal.
Wash area down with water and prevent runoff into drains.

7. HANDLING AND STORAGE

Safe Handling
Avoid contact with eyes. Wash thoroughly after handing.
All handling equipment must be properly grounded.
Product contains low level of organic volatiles which could accumulate in the unvented headspace of drums or bulk storage vessels.
Open drums in well ventilated area.
Avoid breathing vapors.
Special, local ventilation is recommended in areas where containers are opened and their contents are discharged or in any other areas where dusting conditions may develop.

Safe Storage
Store in a cool, well-ventilated, dry area away from heat, sparks or fire.
Mechanical handling of the powder on inadequately grounded equipment can result in static electrical discharges.
Storage temperature : Ambient

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls : Use with local exhaust ventilation.
Exposure Limits : ACGIH (TLV) : Isopropanol – TWA: 200 ppm, STEL: 400 ppm
OSHA (PEL) : Isopropanol – TWA: 400 ppm, STEL: 500 ppm

Personal Protective Equipment
Respiratory Protection: None required under normal handling conditions. Use NIOSH approved dust mask if dust levels are irritating.
Eyes: Wear safety glasses with side shields. Protect against dust and particulates.
Skin: Wear chemically resistant gloves.
Clothing: Wear impervious clothing and boots.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Powder
Color	White
Odor Odor threshold	Mild No data
pH	5.0–7.0 (2% solution in H_2O)
Melting point/Freezing point	200℃ (Decomposes above)
Initial boiling point and Boiling range:	Not available
Flashpoint	Not available
Evaporation rate	Not available
Flammability (solid, gas)	Not determined
Upper/lower flammability or explosive limits	Not applicable
Vapor pressure	Not available
Solubility	Not available
Vapor density	Not available
Relative Density	0.4-0.6 g/cm3 (Bulk density)
Partition coefficient: n-octanol/water	Not determined
Auto-ignition temperature	387℃
Decomposition temperature	Not determined
Viscosity	Not determined
Molecular weight	10000-1000000 g/mol

10. STABILITY AND REACTIVITY

Stability : Stable under normal temperature and pressure

Conditions to Avoid : Heat

Incompatible materials : Strong Oxidizing agents.

Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

11. TOXICOLOGICAL INFORMATION

Acute toxicity (Oral)	Sodium acetate
	Rat LD50=3500 mg/kg (NLM: HSDB)
	Sodium chloride
	Rat LD50=3000 mg/kg (IUCLID)
	Isopropanol
	Rat LD50=4396 mg/kg (IUCLID)
Acute toxicity (Dermal)	Sodium chloride
	Rabbit LD50>10000 mg/kg (NLM: ChemIDPlus)
	Isopropanol
	Rabbit LD50=12870 mg/kg (SIDS)
Acute toxicity (inhalation)	Sodium acetate
	Rat LC50>30 g/m3/1hr (HPVIS)
	Isopropanol
	Rat LC50=72.6 mg/L/4hr (SIDS)
Skin corrosion/irritation	Sodium acetate
	Rabbit: not irritating (OECD 404)(GLP) (IUCLID)
	Sodium chloride
	Rabbit: moderately irritating (IUCLID)
	Isopropanol
	Rabbit: not irritating (SIDS)
Serious eye damage/eye irritation	Sodium acetate
	Rabbit: not irritating (OECD 405)(GLP) (IUCLID)
	Sodium chloride

	Rabbit: moderately irritating (IUCLID)
	Isopropanol
	Rabbit: irritating (SIDS)
Respiratory sensitization	No data
Skin sensitization	Isopropanol
	Guinea Pig: not sensitizing Draize Test (SIDS)
Carcinogenicity	Isopropanol
	Negative (SIDS), Group 3 (IARC)
Germ cell mutagenicity	Sodium acetate
	In Vitro: Ames test, cytogenetic assay – negative
	In Vivo: Testicular DNA-synthesis inhibition test (mouse male) route-gavage result – negative (IUCLID)
	Sodium chloride
	In Vitro: Ames test - negative, cytogenetic assay, DNA damage and repair assay – positive
	In Vivo: rat, Cytogenetic assay - Slight positive reaction for chromosome aberration.
	Mouse, Micronucleus assay - Negative (IUCLID
	Isopropanol
	in Vitro: Bacterial Test Salmonella typhimurium - negative
	in vivo: micronuclei assay in mice – negative, GLP (SIDS)
Reproductive toxicity	Sodium acetate
	mouse female gavage day 8-12 of gestation 1000 mg/kg result-No maternal or neonatal effects (IUCLID)
	Sodium chloride
	Mouse route: S.C. 18 days

NOAEL Maternalt. =2500 mg/kg,

NOAEL Teratogen.<1900 mg/kg (IUCLID)

Isopropanol

Male and female fertility, and female fecundity indices of rats dosed with isopropanol were not different from those of controls by statistical analysis and were within, or relatively close to, historical control values. No reproductive effects were noted in other studies in which rats were dosed up to 2% in the drinking water. (SIDS)

Specific target organ Toxicity (Single exposure)

Sodium acetate

Rat(male) oral In food 3.58% of the diet (approx. 3.6 g/kg bw/day) 4 week Result: Growth and survival were normal. (HPVIS)

Sodium chloride

rat oral feed 6 weeks LOAEL=36600 mg/kg No significant effect

Isopropanol

NOEL = 500 ppm Rat/mice, inhalation, 13 weeks,
The incidence of renal tubular proteinosis was generally significantly increased for all male and female treatment groups.

Mild to moderate degrees of tubular dilation were observed in a small number of females in the 2500 and 5000 ppm groups.(SIDS)

Aspiration

Isopropanol

The death of cardiopulmonary arrest is observed within 24 hours by the intratracheal administration in the rat.

The dynamic viscosity was around 1.6 (NITE).

The toxicity data of Cationic Hydroxyethyl cellulose (91.0% of this product) is not found.

12. ECOLOGICAL INFORMATION

Toxicity

Sodium acetate

Crustacea Daphnia magna 48hr EC50>1000 mg/L (GLP) (IUCLID)

Sodium chloride

Fish, Anguilla rostrata 96hr LC50=17.9 mg/L (IUCLID)
Gambusia holbrooki 28 days NOEC=100 mg/L (ECOTOX)

Crustacea, Daphnia magna 48hr EC50=402.6 mg/L (ECOTOX)

Ceriodaphnia dubia 7 days NOEC=250 mg/L (ECOTOX)

Algae, Navicula seminulum 96hr EC50=2430 mg/L (ECOTOX)

Isopropanol

Fish, Lepomis macrochirus 96hr LC50=1400 mg/L (ECOTOX),

Crustacean, Daphnia magna 48hr EC50=13299 mg/L (IUCLID), 21 days NOEC=30 mg/L (SIDS)

Algae, Scenedesmus subspicatus 96hr EC50>1000 mg/L , NOEC=1000mg/L (IUCLID)

Persistence and degradability — Sodium acetate

Biodegradation-100% after 5 day (IUCLID)

Isopropanol

Ready biodegradability MITI-I (OECD TG 301C) (CHRIP), 49 % after 5 days at 20 °C (SIDS)

Bioaccumulative potential — Isopropanol - Log Kow=0.05 at 25C, BCF=1.0 (SIDS)

Mobility in soil — Isopropanol - Log KOC= 0.03 (SIDS)

Other adverse effects — No data

13. DISPOSAL CONSIDERATIONS

Incinerate or landfill waste in a properly permitted facility in accordance with federal, state and local regulations. Liquids cannot be disposed of in a landfill.

14. TRANSPORT INFORMATION

UN Number	: N/A
Proper Shipping Name	: N/A
Transport hazard class	: N/A
Packing group, if applicable	: N/A
Environmental hazards	: N/A
Special precautions for user	: N/A

15. REGULATORY INFORMATION

Safety, health and environmental regulations specific for the product in question:

EU Regulation

- EU Directive 67/548/EEC:

Isopropanol – F;R11 – Xi;R36 – R67

R11: Highly flammable

R36: irritating to eyes

R67: Vapors may cause drowsiness and dizziness

- EU CLP regulation (EC) No 1272/2008:

Isopropanol – Flam. Liq. 2; Eye Irrit. 2; STOT SE 3

H225 – Highly flammable liquid and vapour

H319 – Causes serious eye irritation

H336 – May cause drowsiness and dizziness

US Regulation

- OSHA Regulation (Standard-29 CFR) 1910.119 : Not regulated

- CERCLA SARA Title III Section 313: Not regulated

- CERCLA Reportable Quantities: Not regulated

- CERCLA SARA Title III Section 304: Not regulated

- CERCLA SARA Title III Section 302: Not regulated -

International Regulation

- INCI(International Nomenclature of Cosmetic Ingredients):

Cationic Hydroxyethyl cellulose - Antistatic, Film forming

Sodium acetate - Buffering, Masking

Sodium chloride - Bulking, Masking, Oral care, Viscosity controlling

Isopropanol - Antifoaming, Solvent, Viscosity controlling, Perfuming

- International Council of Chemical Associations (ICCA) HPV Chemicals Programme

: Not regulated

- Rotterdam Convention: Not regulated

- Stockholm Convention on Persistent Organic Pollutants(POPs): Not regulated

- Montreal Protocol : Not regulated

16. OTHER INFORMATION

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