

1. Identification of the substance and of the company

Product details:

Trade name: FEG Eyelash Enhancer Serum

Application of the substance: For promoting the growth of eyelashes

Supplier/Manufacturer:

Kunming Runyantang Cosmetics Co., Ltd

No.1406, Haiyuanzhuang, Xishan District, Kunming, China

Name of the substance:

--Purified water

Purified water is water that is mechanically filtered or processed to be cleaned for consumption. Purified water in colloquial English can also refer to water which has been treated ("rendered potable") to neutralize, but not necessarily remove contaminants considered harmful to humans or animals.

--Sodium chloride

Sodium chloride, also known as salt, common salt, table salt or halite, is an ionic compound with the chemical formula NaCl, representing equal proportions of sodium and chlorine. Sodium chloride is the salt most responsible for the salinity of the ocean and of the extracellular fluid of many multicellular organisms. In the form of edible or table salt it is commonly used as a condiment and food preservative. Large quantities of sodium chloride are used in many industrial processes, and it is a major source of sodium and chlorine compounds used as feedstocks for further chemical syntheses. A second major consumer of sodium chloride is de-icing of roadways in sub-freezing weather.

Salt is currently mass-produced by evaporation of seawater or brine from brine wells and salt lakes.

In addition to the familiar domestic uses of salt, more dominant applications of the approximately 250 megatons/year production (2008 data) include chemicals and de-icing.

Chemicals production

Salt is the source, directly or indirectly, for the production of many chemicals, which consume most of the world's production.

a. Chlor-alkali industry

b. NaCl + 2 H2O → Cl2 + H2 + 2 NaOH

This electrolysis is conducted in either a mercury cell, a diaphragm cell, or a membrane cell. Each of those use a different method to separate the chlorine from the



sodium hydroxide. Other technologies are under development due to the high energy consumption of the electrolysis, whereby small improvements in the efficiency can have large economic paybacks. Some applications of chlorine include PVC, disinfectants, and solvents. Sodium hydroxide enables industries that produce paper, soap, and aluminium.

c. Soda ash industry

Via the Solvay process, sodium chloride is used to produce sodium carbonate and calcium chloride. Sodium carbonate is used to produce glass, sodium bicarbonate, and dyes as well as a myriad of other chemicals. In the Mannheim process and in the Hargreaves process, it is used for the production of sodium sulfate and hydrochloric acid.

Standard

Sodium chloride has an international standard that is created by ASTM International. The standard is named ASTM E534-13 and it is the standard test methods for chemical analysis of sodium chloride. These methods listed provide procedures for analyzing sodium chloride to determine if it is suitable for its intended use and application.

Miscellaneous industrial uses

In oil and gas exploration, salt is an important component of drilling fluids in well drilling. It is used to flocculate and increase the density of the drilling fluid to overcome high downwell gas pressures. Whenever a drill hits a salt formation, salt is added to the drilling fluid to saturate the solution and to minimize the dissolution within the salt stratum. Salt is also used to increase the curing of concrete in cemented casings.

In textiles and dyeing, salt is used as a brine rinse to separate organic contaminants, to promote "salting out" of dyestuff precipitates, and to blend with concentrated dyes to standardize them. One of its main roles is to provide the positive ion charge to promote the absorption of negatively charged ions of dyes.

It also is used in processing aluminium, beryllium, copper, steel and vanadium. In the pulp and paper industry, salt is used to bleach wood pulp. It also is used to make sodium chlorate, which is added along with sulfuric acid and water to manufacture chlorine dioxide, an excellent oxygen-based bleaching chemical.

In rubber manufacture, salt is used to make buna, neoprene and white rubber types. Salt brine and sulfuric acid are used to coagulate an emulsified latex made from chlorinated butadiene.



Salt also is added to secure the soil and to provide firmness to the foundation on which highways are built. And also use Water softening

--Benzalkonium chloride

Benzalkonium chloride, Benzalkonium chloride, also known as BZK, BKC, alkyldimethylbenzylammonium chloride and ADBAC, is a cationic surface-acting agent belonging to the quaternary ammonium group. It has three main categories of use: as a biocide, a cationic surfactant, and phase transfer agent in the chemical industry. The chemical is a heterogeneous mixture of alkylbenzyldimethylammonium chlorides of various even-numbered[2] alkyl chain lengths.

Properties

Benzalkonium chloride is readily soluble in ethanol and acetone. Although dissolution in water is slow, aqueous solutions are easier to handle and are preferred. Solutions should be neutral to slightly alkaline, with colour ranging from colourless to a pale yellow. Solutions foam profusely when shaken, have a bitter taste and a faint almond-like odour which is only detectable in concentrated solutions.

Availability

Standard concentrates are manufactured as 50% and 80% w/w solutions, and sold under trade names such as BC50, BC80, BAC50, BAC80, etc. The 50% solution is purely aqueous, while more concentrated solutions require incorporation of rheology modifiers (alcohols, polyethylene glycols, etc.) to prevent increases in viscosity or gel formation under low temperature conditions.

Applications

The applications of benzalkonium chloride are extremely wide ranging,[3] from disinfectant formulations, such as being an active ingredient in Dettol and Lysol brand products, to microbial corrosion inhibition in the oilfield sector, and a multi-surface mould, algae and moss remover.

Benzalkonium chloride is used in:

Pharmaceutical products such as eye, ear and nasal drops or sprays, as a preservative

Personal care products such as hand sanitizers, hygienic towelettes and wet wipes

Aftershave, deodorants, hair products and cosmetics Skin antiseptics



Toxicology

Benzalkonium chloride formulations for consumer use are dilute solutions. Concentrated solutions are toxic to humans, causing corrosion/irritation to the skin and mucosa, and death if taken internally in sufficient volumes. In 1954, animal and human testing identified that 0.1% is the maximum concentration of benzalkonium chloride that does not produce primary irritation on intact skin or act as a sensitizer. The lung and kidney appear to be the target organs of benzalkonium chloride toxicity.

Safety

Benzalkonium chloride is frequently used as a preservative in topical ophthalmic preparations, both for its microbial efficacy and its ability to break cell junctions in the corneal epithelium, allowing medication to enter the ocular anterior chamber.

Benzalkonium chloride is effective at exceptionally low concentrations; contact lens solutions typically contain exceptionally low (0.002% to 0.01%) concentrations of benzalkonium chloride for effective preservative action.[17] Swan (1944) found that repeated use of benzalkonium chloride at 10-fold higher concentrations of 1:5000 (0.02%) or stronger can denature corneal protein and cause damage to the eye.

Benzalkonium chloride triggers an apoptotic mechanism at low concentrations and a necrotic process at higher concentrations. The effects of benzalkonium chloride are cumulative and dose-dependent.

Benzalkonium chloride posseses surfactant properties, dissolving the lipid phase of the tear film. It has been shown to be less toxic to ocular structures than thimerosal, which is rarely still used in ophthalmic preparations, but more toxic than other preservatives commonly used. When administered via the anterior chamber or instilled at a concentration of 0.1%, benzalkonium chloride "...destroys the endothelium and causes irreversible corneal edema... At even higher concentrations (1 - 2%), benzalkonium (chloride) totally destroys the anterior segment of experimental animals in less than a week."

Revealed very limited data that demonstrated statistically significant safety concerns for benzalkonium chloride concentrations at or below



Material Safety Data Sheet

0.1%.

Experimental and animal tests have established some reproductive and mutagenic effects of benzalkonium chloride.

Several human case studies have identified allergic and irritant reactions to benzalkonium chloride, including asthma, contact dermatitisand ocular hypersensitivity. Animal studies support the toxicity of benzalkonium chloride on the lung, including the induction of bronchoconstriction.

--Citric acid

Citric acid is a weak organic acid with the formula C6H8O7. It is a natural preservative/conservative which occurs naturally in citrus fruits and is also used to add an acidic or sour taste to foods and drinks. In biochemistry, the conjugate base of citric acid, citrate, is important as an intermediate in the citric acid cycle, which occurs in the metabolism of all aerobic organisms. It consists of 3 carboxyl (R-COOH) groups.

Citric acid is a commodity chemical, and more than a million tonnes are produced every year by fermentation. It is used mainly as an acidifier, as a flavoring, and as a chelating agent.

Applications

The dominant use of citric acid is as a flavoring and preservative in food and beverages, especially soft drinks. The buffering properties of citrates are used to control pH in household cleaners and pharmaceuticals.

Cosmetics and pharmaceuticals

Citric acid is widely used as a pH adjusting agent in creams and gels of all kinds. In this role, it is classified in most jurisdictions as a processing aid and so does not need to be listed on ingredient lists.

Safety

As a weak acid, exposure to pure citric acid can cause adverse effects: inhalation may cause cough, shortness of breath, or sore throat; ingestion may cause abdominal pain and sore throat; exposure to skin or eyes may cause redness or pain. Long term or repeated consumption may cause erosion of tooth enamel



-- Disodium phosphate

(=Disodium hydrogen phosphate)

Disodium hydrogen phosphate is the inorganic compound with the formula Na2HPO4. It is one of several sodium phosphates. The salt is known in anhydrous form as well as forms with 2, 7, 8, and 12hydrates. All are water-soluble white powders; the anhydrous salt being hygroscopic.

It is used as an in conjunction with trisodium phosphate in foods and water treatment. In foods, it is used to adjust pH. Its presence prevents coagulation in the preparation of condensed milk. Similarly, it is used as an anti-caking additive in powdered products.[3] It is used in desserts and puddings, e.g. Cream of Wheat to quicken cook time, and Jell-O Instant Pudding for thickening. In water treatment, It retards calcium scale formation. It is also found in some detergents and cleaning agents.

--Cellulose gum (= carboxymethyl cellulose)

Carboxymethyl cellulose (CMC) or cellulose gum is a cellulose derivative with carboxymethyl groups (-CH2-COOH) bound to some of the hydroxyl groups of the glucopyranose monomers that make up the cellulose backbone. It is often used as its sodium salt, sodium carboxymethyl cellulose.

CMC is used in food under the E number E466 as a viscosity modifier or thickener, and to stabilize emulsions in various products including ice cream. It is also a constituent of many non-food products, such as personal lubricants, toothpaste, laxatives, diet pills, water-based paints, detergents, textile sizing, and various paper products. It is used primarily because it has high viscosity, is nontoxic, and is generally considered to be hypoallergenic as the major source fiber is either softwood pulp or cotton linter.

CMC is used extensively in gluten free and reduced fat food products. In laundry detergents, it is used as a soil suspension polymer designed to deposit onto cotton and other cellulosic fabrics, creating a negatively charged barrier to soils in the wash solution. CMC is used as a lubricant in artificial tears. Sometimes methyl cellulose (MC) is used, but its nonpolar methyl groups (-CH3) do not add any solubility or chemical reactivity to the base cellulose.

CMC is also used in pharmaceuticals as a thickening agent, and in the oil-drilling industry as an ingredient of drilling mud, where it acts as a viscosity modifier and water retention agent. Polyanionic cellulose (PAC) derived from cellulose is also used in oilfield practice. CMC is both chemically and physically distinguished from polyanionic cellulose.



CMC is definitely a carboxylic acid, where PAC is an ether. Although CMC and PAC are manufactured from the same raw materials, by adjusting the type of cellulose and stoichiometry of the reactants, different final products may be produced. The primary difference between the CMC and PAC production processes is in the radicalization step.[citation needed]

CMC is also used in ice packs to form a eutectic mixture resulting in a lower freezing point, and therefore more cooling capacity than ice.[7]

Aqueous solutions of CMC have also been used to disperse carbon nanotubes. The long CMC molecules are thought to wrap around the nanotubes, allowing them to be dispersed in water. In conservation-restoration, it is used as an adhesive or fixative (commercial name Klucel).

CMC is used to achieve tartrate or cold stability in wine. This innovation may save megawatts of electricity used to chill wine in warm climates. It is more stable than metatartaric acid and is very effective in inhibiting tartrate precipitation. It is reported (Gerbaux 1996) that KHT crystals, in presence of CMC, grow slower and change their morphology. Their shape becomes flatter because they lose 2 of the 7 faces, changing their dimensions. CMC molecules, negatively charged at wine pH, interact with the electropositive surface of the crystals, where potassium ions are accumulated. The slower growth of the crystals and the modification of their shape are caused by the competition between CMC molecules and bitartrate ions for binding to the KHT crystals (Cracherau et al. 2001).

2. Hazards identification

Emergency overview:

This is a personal care or cosmetic product that is safe for consumers and other users under intended and reasonably foreseeable use. Additional information on toxicological endpoints is available from the supplier upon request.

Acute Potential Health Effects:

Inhalation: Not expected to be irritating to the respiratory system. Limited inhalation exposure anticipated for this product form.

Eye Contact: May cause irritation if product comes into contact with the eye.

Skin Contact: Not expected to be irritating, sensitizing, photoallergenic or phototoxic when used as intended. If irritation occurs following intended use or prolonged



contact it is expected to mild and transient.

Ingestion: Product used as not expected to cause gastrointestinal irritation. Accidental ingestion of undiluted product may cause mild gastrointestinal irritation with nausea, vomiting and diarrhea.

Carcinogenic effects: Not available.

Mutagenic effects: Not available.

Teratogenic effects: Not available

Developmental Toxicity: Not available

3. Composition on ingredients

Description: Mixture of substances listed below Ingredients Percent (%) INCINAME Percent (%)

Ingredients refeelt (70)HVEHVIII refee	
Purified Water	64.92
G 1: G11 :1	15.00
Sodium Chloride	15.00
Benzalkonium Chloride	0.08
Benzarkomam emoriae	0.00
Citric Acid	8.00
Digadiyan Dhagahata	6.00
Disodium Phosphate	0.00
Cellulose Gum	6.00
Total	100.0

4. First aid measures

Inhalation: If respiratory irritation occurs, remove individual to fresh air.

Eye contact: Thorough rinsing for 15-20 minutes of the affected eye with water is recommended. If discomfort or irritation persists, consult a physician. If the eye is accidentally scratched with a mascara brush, consult a physician immediately.

Skin contact: Discontinue use of product. Apply cold compresses to affected areas to relieve anydiscomfort. If discomfort presists, consult a physician.

Ingestion: Accidental ingestion of product may necessitate medical attention. In case of accidental ingestion dilute with fluids (water or milk) and treat symptomatically. Do not induce vomiting.



5. Fire-fighting measures

General Information:

As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH

(approved or equivalent), and full protective gear.

Suitable Extinguishing Agents:

Small fire: Use DRY chemical powder.

Large fire: Use water spray, fog or foam. Do not use water jet.

Products of Combustion: Carbon oxides, low molecular

Special Fire Fighting Procedures:

Firefighters should wear self-contained breathing apparatus and full fire-fighting turn-out gear

(bunker gear). Keep personnel removed and upwind of fire. Water should be used to keep

fire-exposed containers cool. Special Remarks on Fire and Explosion Hazards:

Thermal decomposition can lead to release of irritating gases and vapors.

6. Accidental release measures

General: Use proper personal protective equipment as indicated in Section 8.

Environmental precautions: Not applicable.

Measures for Cleaning/Collection: Use safety glasses or safety goggles if splash hazards exist, use gloves and other protective clothing (apron, boots, etc.) to prevent skin contact.

7. Handling and storage

Precautions: Use proper personal protective equipment as indicated in Section 8.

Handling: Avoid spillage which can cause very slippery conditions on floors. Follow standard personal hygiene and housekeeping practices for an industrial environment.

Storage: No unusual handling or storage requirements. Storage in large quantities (as in warehouses) should be in a well-ventilated, cool area.

8. Exposure controls/personal protection

Engineering Controls: This is a personal care or cosmetic product that is safe for consumers and other users under normal and reasonably foreseen use.

Exposure Limits: Not Available.

Respiratory Protection: Not required for properly ventilated areas. If there is potential



for inhalation of dust or vapor, wear a NIOSH approved respirator.

Ventilation Protection: Local ventilation.

Protective Clothing: Lab coat.

Protective Gloves: Not normally required. Use protective gloves as needed for

necessary.

Eye Protection: Not normally required under normal conditions.

Personal Protection in Case of a Large Spill:

Splash googles. Full suit. Respirator. Boots. Gloves. A self contained breathing apparatus should be used to avoid inhalatin of the product. Suggested protective clothing might not be sufficient, consult a specialist before handling this product.

Ventilation:

Local exhaust: MSHA/NIOSH approved respirator. Appropriate respirator depends upon type and magnitude of exposure.

9. Physical and chemical properties

General Information

Form: Serum

Color: Transparant Odor: Odorless

Change in conditionMelting point/Melting range: Not available

Boiling point/Boiling range: Not available

Flash point: Not available Self-igniting: Not applicable

Danger of explosion: Not determined

Density: N.A.g/cm3

Relative density: N/A (Water=1) Vapor density: Not available Vapor pressure: Not available Evaporation rate: Not available

Solubility in/Miscibility with water or others: Soluble in water

PH-value: Not applicable Viscosity: Not applicable

10. Stability and reactivity

Stability: Stable under normal temperatures and pressures.

Polymerization: Will not occur.

Dangerous decomposition products: Not available.

Incompatibility: Strong oxidizing agents.

Conditions to avoid: Incompatible materials, excess beat.

Special remarks on reactivity: Not available.



11. Toxicological information

Please refers to section 3 for hazards identification.

Routes of entry: Eye cotact.

Toxicity to animals: Not available.

Chronic effects on humans: Not available.

Other toxic effects on humans: Not available.

Special remarks on chronic effects on humans: Not available. Special remarks on other toxic effects on humans: Not available.

12. Ecological information

Ecotoxicity effects: Not available. BOD5 and COD: Not available.

Bioaccumulation: Not specific information available.

Products of biodegradation: Possibly bazardous short term degradation products are

not likely. However, long term degradation products may arise.

Toxicity of the products of biodegradation: The product itself and its products of

degradation are not toxic.

13. Disposal consideration

General Information:

Chemical waste generators must determine whether a discarded chemical is classified as ahazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts

261.3. Additionaly, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

Waste Disposal Methods:

Dispose according to Federal, State, Provincial and Local regulations.

14. Transport information

Not a DOT controlled material (United States)

Proper Shipping Name: Not regulated.

Hazzard Class: Not regulated.

UN.NO.: Not regulated

Packing Group: Not regulated. IMDG EMS: Not regulated.

15. Regulatory information

European/International Regulations

This product is on the European Inventory of Existing Commercail Chemical Substances.

European Labelling in accordance with EC directives

Hazard Symbols: N/A Risk phrases: N/A Safety phrases: N/A

HMIS (U.S.A) Health hazard: 1 Fire hazard: 0 Reactivity: 0

National Fire Protection Association (U.S.A)

Health: 1

Flammability: 0 Reactivity: 0

Federal and State Regulations:

Not listed.

Canada- WHMIS:

Not controlled under WHMIS (Canada).

For details regulations you should contact the appropriate agency in your country.

16. Other information

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information and we assume no liability resulting from its use. This shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.