



SAFTY DATA SHEET
According to Regulation (EC) No 1907/2006 (REACH)

Revision Date: March 10, 2017

Version No.: 2

SECTION 1 – IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND OF THE COMPANY / UNDERTAKING

- | | | |
|------------|---|--|
| 1.1 | Product Identifier
Product Name | JEECHEM EGDS |
| 1.2 | Relevant Identified Uses of the Substance or Mixture and Uses Advised Against
Identified uses | Cosmetic raw material |
| 1.3 | Details of the Supplier of the Safety Data Sheet
Company | JEEN International Corporation
24 Madison Road
Fairfield, New Jersey 07004
Tel: +1-973-439-1401
Fax: +1-973-439-1402
email: info@jeen.com
Website: www.jeen.com |
| 1.4 | Emergency telephone number | +1703-527-3887(Chemtrec Int'l Tel - Collect calls accepted) |

SECTION 2 – HAZARDS IDENTIFICATION

- | | | |
|------------|--|------------|
| 2.1 | Classification of the Substance or Mixture according to Regulation (EC) 1272/2008 | None |
| 2.2 | Label Elements according to Regulation (EC) EU 1272/2008 | |
| | Hazard pictogram | None |
| | Signal words | None |
| | Hazard statements | None |
| | Precautionary statements | None |
| 2.3 | Other Hazards | None known |

SECTION 3 – COMPOSITION/INFORMATION ON INGREDIENTS

- | | | |
|------------|---------------------------|---|
| 3.1 | Substances | - |
| 3.2 | Mixture | |
| | Chemical characterization | Cosmetic ingredients |
| | INCI | Glycol Distearate Ethylene Glycol Monostearate |
| | CAS | 627-83-8 111-60-4 |
| | EC | 211-014-3 203-886-9 |
| | Concentration | 88-95% 5-15% |
| | INCI | Ethylene Glycol |
| | CAS | 107-21-1 |
| | EC | 203-473-3 |
| | Concentration | <4% |

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SECTION 4 – FIRST AID MEASURES

4.1 Description of First Aid Measures

If in Contact with Eyes

Wash out immediately with fresh running water. Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids. Seek medical attention without delay; if pain persists or recurs seek medical attention. Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.

If on skin

Flush skin and hair with running water (and soap if available). Seek medical attention in event of irritation. If swallowed Rinse out mouth and drink 2-3 glasses of water. Seek medical attention if discomfort or other symptoms develop.

If inhaled

If fumes, aerosols or combustion products are inhaled remove from contaminated area. Other measures are usually unnecessary.

If Ingested

If swallowed do NOT induce vomiting. If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration. Observe the patient carefully. Never give liquid to a person showing signs of being sleepy or with reduced awareness; i.e. becoming unconscious. Give water to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably drink. Seek medical advice.

4.2 Indication of an Immediate Medical Attention and Special Treatment Needed

For acute or short term repeated exposures to ethylene glycol:

Treat symptomatically.

Early treatment of ingestion is important. Ensure emesis is satisfactory.

Test and correct for metabolic acidosis and hypocalcaemia.

Apply sustained diuresis when possible with hypertonic mannitol.

Evaluate renal status and begin haemodialysis if indicated. [I.L.O]

Rapid absorption is an indication that emesis or lavage is effective only in the first few hours. Cathartics and charcoal are generally not effective.

Correct acidosis, fluid/electrolyte balance and respiratory depression in the usual manner. Systemic acidosis (below 7.2) can be treated with intravenous sodium bicarbonate solution.

Ethanol therapy prolongs the half-life of ethylene glycol and reduces the formation of toxic metabolites.

Pyridoxine and thiamine are cofactors for ethylene glycol metabolism and should be given (50 to 100 mg respectively) intramuscularly, four times per day for 2 days.

Magnesium is also a cofactor and should be replenished. The status of 4-methylpyrazole, in the treatment regime, is still uncertain. For clearance of the material and its metabolites, haemodialysis is much superior to peritoneal dialysis.

SECTION 5 – FIRE FIGHTING MEASURES



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- 5.1 Special Hazards arising from the Substance or Mixture**
Fire Incompatibility Avoid contamination with oxidizing agents i.e. nitrates, oxidizing acids, chlorine bleaches, pool chlorine etc. as ignition may result
- 5.2 Extinguishing Media** Foam, Dry chemical powder, BCF (where regulations permit), Carbon dioxide. Water spray or fog - Large fires only.
- 5.3 Fire Fighting Procedures** Alert Fire Brigade and tell them location and nature of hazard. Wear breathing apparatus plus protective gloves. Prevent, by any means available, spillage from entering drains or water courses. Use water delivered as a fine spray to control fire and cool adjacent area. DO NOT approach containers suspected to be hot.
- 5.4 Fire/Explosion Hazards** Combustible solid which burns but propagates flame with difficulty; it is estimated that most organic dusts are combustible (circa 70%) – according to the circumstances under which the combustion process occurs, such materials may cause fires and / or dust explosions. Organic powders when finely divided over a range of concentrations regardless of particulate size or shape and suspended in air or some other oxidizing medium may form explosive dust-air mixtures and result in a fire or dust explosion (including secondary explosions). Avoid generating dust, particularly clouds of dust in a confined or unventilated space as dusts may form an explosive mixture with air, and any source of ignition, i.e. flame or spark, will cause fire or explosion. Dust clouds generated by the fine grinding of the solid are a particular hazard; accumulations of fine dust (420 micron or less) may burn rapidly and fiercely if ignited - particles exceeding this limit will generally not form flammable dust clouds; once initiated, however, larger particles up to 1400 microns diameter will contribute to the propagation of an explosion. In the same way as gases and vapors, dusts in the form of a cloud are only ignitable over a range of concentrations; in principle, the concepts of lower explosive limit (LEL) and upper explosive limit (UEL) are applicable to dust clouds but only the LEL is of practical use; - this is because of the inherent difficulty of achieving homogeneous dust clouds at high temperatures (for dusts the LEL is often called the "Minimum Explosible Concentration", MEC). Combustion products include:, carbon monoxide (CO), carbon dioxide (CO₂), other pyrolysis products typical of burning organic material May emit poisonous fumes. May emit corrosive fumes.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

- 6.1 Personal precautions, Protective Equipment and Emergency Procedures** Caution! Floors may become slippery. Wear appropriate protective gear and respiratory protection where dusts or airborne Particulates of unknown concentrations may be generated (self-contained breathing apparatus preferred for large spills).
- 6.2 Methods and Material for Containment**



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and Cleaning Up

Minor spills

Remove all ignition sources. Clean up all spills immediately. Avoid contact with skin and eyes. Control personal contact with the substance, by using protective equipment. Use dry clean up procedures and avoid generating dust.

Major spills

Moderate hazard. CAUTION: Advise personnel in area. Alert Emergency Services and tell them location and nature of hazard. Control personal contact by wearing protective clothing. Prevent, by any means available, spillage from entering drains or water courses.

SECTION 7 – HANDLING AND STORAGE

7.1 Precautions for Safe Handling

Avoid all personal contact, including inhalation. Wear protective clothing when risk of exposure occurs. Use in a well-ventilated area. Prevent concentration in hollows and sumps. DO NOT enter confined spaces until atmosphere has been checked. Organic powders when finely divided over a range of concentrations regardless of particulate size or shape and suspended in air or some other oxidizing medium may form explosive dust-air mixtures and result in a fire or dust explosion (including secondary explosions). Minimize airborne dust and eliminate all ignition sources. Keep away from heat, hot surfaces, sparks, and flame. Establish good housekeeping practices. Remove dust accumulations on a regular basis by vacuuming or gentle sweeping to avoid creating dust clouds. Use continuous suction at points of dust generation to capture and minimize the accumulation of dusts. Store in original containers. Keep containers securely sealed. Store in a cool, dry area protected from environmental extremes. Store away from incompatible materials and foodstuff containers. Protect containers against physical damage and check regularly for leaks.

Other Information

7.2 Conditions for Safe Storage, including any Incompatibilities

Suitable container

Polyethylene or polypropylene container. Check all containers are clearly labelled and free from leaks.

Storage incompatibility

Avoid reaction with oxidizing agents

SECTION 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Occupational Exposure Limits (OEL)

Source
 Ingredient
 Material Name
 TWA
 STEL
 Peak

US ACGIH Threshold Limit Values (TLV)
 Ethylene Glycol
 Ethylene Glycol
 Not available
 Not available
 100 mg/m³

Source

US NIOSH Recommended Exposure Limits (RELs)



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Ingredient Material Name	Ethylene Glycol 1,2-Dihydroxyethane; 1,2-Ethandiol; Glycol; Glycol alcohol; Monoethylene glycol
TWA	Not available
STEL	Not available
Peak	Not available

8.2 Emergency Limits

Ingredient	Ethylene Glycol
Material Name	Ethylene Glycol
TEEL-1	10 ppm
TEEL-2	40 ppm
TEEL-3	60 ppm

Material Data for Ethylene Glycol:

Odor Threshold: 25 ppm
NOTE: Detector tubes for ethylene glycol, measuring in excess of 10 mg/m³, are commercially available.
It appears impractical to establish separate TLVs for ethylene glycol vapor and mists. Atmospheric concentration that do not cause discomfort are unlikely to cause adverse effects. The TLV-C is thought to be protective against throat and respiratory irritation and headache reported in exposed humans. NIOSH has not established a limit for this substance due to the potential teratogenicity associated with exposure and because respiratory irritation reported at the TLV justified a lower value

8.2 Exposure Controls

Appropriate Engineering Controls:

Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-designed engineering controls can be highly effective in protecting workers and will typically be independent of worker interactions to provide this high level of protection. The basic types of engineering controls are: Process controls which involve changing the way a job activity or process is done to reduce the risk. Enclosure and/or isolation of emission source which keeps a selected hazard "physically" away from the worker and ventilation that strategically "adds" and "removes" air in the work environment. Ventilation can remove or dilute an air contaminant if designed properly.

Personal Protection:

Eye and face

Safety glasses with side shields. Chemical goggles. Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lenses or restrictions on use, should be created for each workplace or task. This should include a review of lens absorption and adsorption for the class of chemicals in use and an account of injury experience.

Skin

See Hand protection below.

Hands/feet

The selection of suitable gloves does not only depend on the material, but also on further marks of quality which vary from



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manufacturer to manufacturer. Where the chemical is a preparation of several substances, the resistance of the glove material cannot be calculated in advance and has therefore to be checked prior to the application. The exact break through time for substances has to be obtained from the manufacturer of the protective gloves and has to be observed when making a final choice. Personal hygiene is a key element of effective hand care. Gloves must only be worn on clean hands. Experience indicates that the following polymers are suitable as glove materials for protection against undissolved, dry solids, where abrasive particles are not present.

- polychloroprene.
- nitrile rubber.
- butyl rubber.
- fluorocautchouc.

See other protection below

Overalls, PVC apron, barrier cream, skin cleansing cream

Body

Other protection

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic Physical and Chemical Properties

Appearance	White flake or beads
Odor	Not available
Vapor Density (Air=1)	Not available
Relative Density (Water =1)	0.93
Auto Ignition Temperature	Not available
pH (as supplied)	Not available
Melt Point, °C	60-67
Initial Boiling Point, °C	>150
Flash Point, °C	>198
Evaporation Rate	Not available
Upper/Lower Explosion Limit (%)	Not available
Vapor Pressure	Not available
Solubility in Water (g/L)	Immiscible
Acid Value	7 Maximum
Saponification Value	194.2
Iodine Value	2 Maximum
Molecular Weight	Not available
Viscosity (cST)	Not available
pH as a solution (5%)	5-7
VOC g/L	Not available

SECTION 10 – STABILITY AND REACTIVITY

10.1 Stability	Product is considered stable. Product is unstable in the presence of incompatible materials.
10.2 Conditions to Avoid	See section 7.
10.3 Incompatible Materials	See section 7.
10.4 Hazardous Decomposition Products	See section 5.



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SECTION 11 - TOXICOLOGICAL INFORMATION

11.1 Information on Toxicological Effects

Inhaled

The material is not thought to produce either adverse health effects or irritation of the respiratory tract following inhalation (as classified by EC Directives using animal models). Nevertheless, adverse systemic effects have been produced following exposure of animals by at least one other route and good hygiene practice requires that exposure be kept to a minimum and that suitable control measures be used in an occupational setting.

Ingestion

Accidental ingestion of the material may be damaging to the health of the individual. Nonionic surfactants may produce localized irritation of the oral or gastrointestinal mucosa and induce vomiting and mild diarrhea.

Skin Contact

The material is not thought to produce adverse health effects or skin irritation following contact (as classified by EC Directives using animal models). Nevertheless, good hygiene practice requires that exposure be kept to a minimum and that suitable gloves be used in an occupational setting. Repeated exposure may cause skin cracking, flaking or drying following normal handling and use. One of the mechanisms of skin irritation caused by surfactants is considered to be denaturation of the proteins of skin. It has also been established that there is a connection between the potential of surfactants to denature protein in vitro and their effect on the skin. Nonionic surfactants do not carry any net charge and, therefore, they can only form hydrophobic bonds with proteins. For this reason, proteins are not deactivated by nonionic surfactants, and proteins with poor solubility are not solubilized by nonionic surfactants. Open cuts, abraded or irritated skin should not be exposed to this material. Entry into the blood-stream through, for example, cuts, abrasions, puncture wounds or lesions, may produce systemic injury with harmful effects. Examine the skin prior to the use of the material and ensure that any external damage is suitably protected.

Eye

Limited evidence exists, or practical experience suggests, that the material may cause eye irritation in a substantial number of individuals and/or is expected to produce significant ocular lesions which are present twenty-four hours or more after instillation into the eye(s) of experimental animals. Repeated or prolonged eye contact may cause inflammation characterized by temporary redness (similar to windburn) of the conjunctiva (conjunctivitis); temporary impairment of vision and/or other transient eye damage/ulceration may occur. Some nonionic surfactants may produce a localized anaesthetic effect on the cornea; this may effectively eliminate the warning discomfort produced by other substances and lead to corneal injury. Irritant effects range from minimal to severe dependent on the nature of the surfactant, its concentration and the duration of contact. Pain and corneal damage represent the most severe manifestation of irritation.



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Chronic

Prolonged or repeated skin contact may cause drying with cracking, irritation and possible dermatitis following. Limited evidence suggests that repeated or long-term occupational exposure may produce cumulative health effects involving organs or biochemical systems. Prolonged or repeated skin contact may cause degreasing with drying, cracking and dermatitis following.

Ethylene Glycol

Ethylene glycol is quickly and extensively absorbed through the gastrointestinal tract. Limited information suggests that it is also absorbed through the respiratory tract; dermal absorption is apparently slow. Following absorption, ethylene glycol is distributed throughout the body according to total body water. In most mammalian species, including humans, ethylene glycol is initially metabolized by alcohol.

Acute Toxicity
 Skin Irritation/Corrosion
 Serious Eye Damage
 Respiratory or Skin Sensitization
 Mutagenicity
 Carcinogenicity
 Reproductivity
 STOT – Single Exposure
 STOT-Repeated Exposure
 Aspiration Hazard

Data Not Available to make classification
 Data Not Available to make classification
 Data Not Available to make classification
 Data Not Available to make classification
 Data Not Available to make classification
 Data Not Available to make classification
 Data Not Available to make classification
 Data Not Available to make classification
 Data Not Available to make classification
 Data Not Available to make classification

SECTION 12 - ECOLOGICAL INFORMATION

12.1 Persistence and Degradability

Ingredient
 Persistence: Water/Soil
 Persistence: Air

Ethylene Glycol
 LOW (Half-life = 24 days)
 LOW (Half-life = 3.46 days)

12.2 Bioaccumulative Potential

Ingredient
 Bioaccumulation

Ethylene Glycol
 LOW (BCF = 200)

12.3 Mobility in Soil

Ingredient
 Mobility

Ethylene Glycol
 HIGH (KOC =1)

SECTION 13 - DISPOSAL CONSIDERATIONS

13.1 Waste Treatment Methods

DO NOT allow wash water from cleaning or process equipment to enter drains. It may be necessary to collect all wash water for treatment before disposal. In all cases disposal to sewer may be subject to local laws and regulations and these should be considered first. Where in doubt contact the responsible authority.

SECTION 14 – TRANSPORTATION INFORMATION



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14.1	AIR- ICAO/ IATA	Not regulated for transport of dangerous goods
14.2	SEA-IMO/IMDG	Not regulated for transport of dangerous goods
14.3	ADR/RID-ADNR	Not regulated for transport of dangerous goods
14.4	Transport in Bulk according to Annex II of MARPOL and the IBC code	Not applicable.

SECTION 15 – REGULATORY INFORMATION

15.1 Safety, health and environmental regulations / legislation specific for the substance or mixture
 ETHYLENE GLYCOL(107-21-1) IS FOUND ON THE FOLLOWING REGULATORY LISTS

- US - Alaska Limits for Air Contaminants
- US - California OEHHA/ARB - Chronic Reference Exposure Levels and Target Organs (CRELs)
- US - California Permissible Exposure Limits for Chemical Contaminants
- US - California Proposition 65 - Reproductive Toxicity
- US - Hawaii Air Contaminant Limits
- US - Michigan Exposure Limits for Air Contaminants
- US - Minnesota Permissible Exposure Limits (PELs)
- US - Oregon Permissible Exposure Limits (Z-1)
- US - Tennessee Occupational Exposure Limits - Limits For Air Contaminants
- US - Vermont Permissible Exposure Limits Table Z-1-A Final Rule Limits for Air Contaminants
- US - Vermont Permissible Exposure Limits Table Z-1-A Transitional Limits for Air Contaminants
- US - Washington Permissible exposure limits of air contaminants
- US - Washington Toxic air pollutants and their ASIL, SQER and de minimis emission values
- US ACGIH Threshold Limit Values (TLV)
- US ACGIH Threshold Limit Values (TLV) - Carcinogens
- US ACGIH Threshold Limit Values (TLV) - Notice of Intended Changes
- US ATSDR Minimal Risk Levels for Hazardous Substances (MRLs)
- US EPCRA Section 313 Chemical List
- US NIOSH Recommended Exposure Limits (RELs)
- US Spacecraft Maximum Allowable Concentrations (SMACs) for Airborne Contaminants
- US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory

15.2 US. EPA CERCLA HAZARDOUS SUBSTANCES AND REPORTABLE QUANTITIES (40 CFR 302.4)

Name	Ethylene Glycol
Reportable Quantity in Pounds (lb)	5000
Reportable Quantity in kg	2270

15.4 U.S. California Proposition 65

WARNING: This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm.

15.5 U.S. California Preposition 65 - Carcinogens & Reproductive Toxicity (CRT) Listed Substance

Ethylene glycol (ingested) Listed



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15.6 Inventory Listings
National Inventory Status

Australia - AICS Y
Canada - DSL Y
Canada - NDSL N (ethylene glycol)
China - IECSC Y
Europe - EINEC / ELINCS /
NLP
Y
Japan - ENCS Y
Korea - KECI Y
New Zealand - NZIoC Y
Philippines - PICCS Y
USA - TSCA Y
Legend:

Y = All ingredients are on the inventory

N = Not determined or one or more ingredients are not on the inventory and are not exempt from listing(see specific ingredients in brackets)

SECTION 16 – OTHER INFORMATION

Disclaimer: These data are offered in good faith as typical values and not as a Product Specifications. No warranty, either expressed or implied, is hereby made. The recommended industrial hygiene and safe handling procedures are believed to be generally applicable; however, each user should review these recommendations in the specific context of intended use and determine whether they are appropriate.