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

1.1 Product Identifier
Product Name
JEECHEM SHAMPOO BSC

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 INGREDIENTS

2.1 Classification of the Substance or Mixture according to Regulation (EC) 1272/2008
Skin Irritant
Eye irritant
Acute Chronic

2.2 Label Elements according to Regulation (EC) EU 1272/2008
Hazard pictogram
GHS07 GHS08

Signal words
Warning
Hazard statements
H319: Causes serious eye irritation
H315: Causes skin irritation
H317: May cause an allergic skin reaction
Precautionary statements
P260: Do not breathe dust/fume/gas/mist/vapours/spray
P280: Wear protective gloves/protective clothing/eye protection/face protection.
P272: Contaminated work clothing should not be allowed out of the workplace.
P362: Take off contaminated clothing.
P363: Wash contaminated clothing before reuse.
P302+P352: IF ON SKIN: Wash with plenty of water and soap
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P314: Get medical advice/attention if you feel unwell.
SECTION 3 – COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

3.2 Mixture

<table>
<thead>
<tr>
<th>Chemical Characterization</th>
<th>Cosmetic Ingredients</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Name</strong></td>
<td>diethanolamine</td>
</tr>
<tr>
<td></td>
<td>isothiazolinones, mixed</td>
</tr>
<tr>
<td><strong>CAS</strong></td>
<td>111-42-2</td>
</tr>
<tr>
<td></td>
<td>55965-84-9</td>
</tr>
<tr>
<td><strong>Concentration</strong></td>
<td>0.05-0.15%</td>
</tr>
<tr>
<td></td>
<td>&lt;0.1</td>
</tr>
</tbody>
</table>

SECTION 4 – FIRST AID MEASURES

4.1 Description of First Aid Measures

Eye Contact: If this product comes in contact with the 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.

Skin Contact: If skin contact occurs: Immediately remove all contaminated clothing, including footwear. Flush skin and hair with running water (and soap if available). Seek medical attention in event of irritation.

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

Ingestion: Immediately give a glass of water. First aid is not generally required. If in doubt, contact a Poisons Information Centre or a doctor.

4.2 Most important Symptoms and Effects

No information available

4.3 Indication of any immediate Medical Attention and special Treatment needed

No information available

SECTION 5 – FIRE FIGHTING MEASURES

5.1 Extinguishing Media

Water spray or fog.
Foam.
Dry chemical powder.
BCF (where regulations permit).
Carbon dioxide

5.2 Fire Incompatibility

Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result
5.3 Fire Fighting

Alert Fire Brigade and tell them location and nature of hazard. Wear full body protective clothing with breathing apparatus. Prevent, by any means available, spillage from entering drains or water course. Use water delivered as a fine spray to control fire and cool adjacent area. Avoid spraying water onto liquid pools.

5.4 Fire/Explosive Hazard

Combustible. Slight fire hazard when exposed to heat or flame. Heating may cause expansion or decomposition leading to violent rupture of containers. On combustion, may emit toxic fumes of carbon monoxide (CO). May emit acrid smoke.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

6.1 Environmental Precautions

Remove all ignition sources. Clean up all spills immediately. Avoid breathing vapours and contact with skin and eyes. Control personal contact with the substance, by using protective equipment.

Chemical Class: alcohols and glycols
For release onto land: recommended sorbents listed in order of priority

6.2 Methods and Material for Containment and Cleaning Up

### LAND SPILL - SMALL

<table>
<thead>
<tr>
<th>SORBENT TYPE</th>
<th>RANK</th>
<th>APPLICATION</th>
<th>COLLECTION</th>
<th>LIMITATIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>cross-linked polymer - particulate</td>
<td>1</td>
<td>shovel</td>
<td>shovel</td>
<td>R, W, SS</td>
</tr>
<tr>
<td>cross-linked polymer - pillow</td>
<td>1</td>
<td>throw</td>
<td>pitchfork</td>
<td>R, DGC, RT</td>
</tr>
<tr>
<td>sorbent clay - particulate</td>
<td>2</td>
<td>shovel</td>
<td>shovel</td>
<td>R, I, P</td>
</tr>
<tr>
<td>wood fiber - pillow</td>
<td>3</td>
<td>throw</td>
<td>pitchfork</td>
<td>R, P, DGC, RT</td>
</tr>
<tr>
<td>treated wood fiber - pillow</td>
<td>3</td>
<td>throw</td>
<td>pitchfork</td>
<td>DGC, RT</td>
</tr>
<tr>
<td>foamed glass - pillow</td>
<td>4</td>
<td>throw</td>
<td>pitchfork</td>
<td>R, P, DGC, RT</td>
</tr>
</tbody>
</table>

### LAND SPILL – MEDIUM

<table>
<thead>
<tr>
<th>SORBENT TYPE</th>
<th>RANK</th>
<th>APPLICATION</th>
<th>COLLECTION</th>
<th>LIMITATIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>cross-linked polymer - particulate</td>
<td>1</td>
<td>blower</td>
<td>skiploader</td>
<td>R, W, SS</td>
</tr>
<tr>
<td>polypropylene - particulate</td>
<td>2</td>
<td>blower</td>
<td>skiploader</td>
<td>W, SS, DGC</td>
</tr>
<tr>
<td>sorbent clay - particulate</td>
<td>2</td>
<td>blower</td>
<td>skiploader</td>
<td>R, I, W, P, DGC</td>
</tr>
<tr>
<td>polypropylene - mat</td>
<td>3</td>
<td>throw</td>
<td>skiploader</td>
<td>DGC, RT</td>
</tr>
<tr>
<td>expanded mineral - particulate</td>
<td>3</td>
<td>throw</td>
<td>skiploader</td>
<td>R, I, W, P, DGC</td>
</tr>
<tr>
<td>polyurethane - mat</td>
<td>4</td>
<td>throw</td>
<td>skiploader</td>
<td>DGC, RT</td>
</tr>
</tbody>
</table>

Legend
DGC: Not effective where ground cover is dense
R: Not reusable
I: Not incinerable
P: Effectiveness reduced when rainy
RT: Not effective where terrain is rugged
SS: Not for use within environmentally sensitive sites
W: Effectiveness reduced when windy
Reference: Sorbents for Liquid Hazardous Substance Cleanup and Control; R.W Melvold et al: Pollution Technology Review No. 150: Noyes Data Corporation 1988

Moderate hazard. Clear area of personnel and move upwind. Alert Fire Brigade and tell them location and nature of hazard.

SECTION 7 – HANDLING AND STORAGE

7.1 Precautions for Safe Handling

DO NOT allow clothing wet with material to stay in contact with skin. Overheating of ethoxylates/alkoxylates in air should be avoided. When some ethoxylates are heated vigorously in the presence of air or oxygen, at temperatures exceeding 160°C, they may undergo exothermic oxidative degeneration resulting in self-heating and autoignition. Nitrogen blanketing will minimise the potential for ethoxylate oxidation. Prolonged storage in the presence of air or oxygen may cause product degradation. Oxidation is not expected when stored under a nitrogen atmosphere.

7.2 Condition for Safe Storage, including any Incompatibilities

For ethoxylates suitable containers include carbon steel coated with baked phenolic. Any moisture may cause rusting of carbon steel. If product is moisture free, uncoated carbon steel tanks may be used. Metal can or drum Packaging as recommended by manufacturer. Check all containers are clearly labelled and free from leaks.

Storage incompatibility

Avoid oxidising agents, acids, acid chlorides, acid anhydrides, chloroformates.

SECTION 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Occupational Exposure Limit (OEL)

<table>
<thead>
<tr>
<th>Source</th>
<th>Ingredient</th>
<th>Material name</th>
<th>TWA</th>
<th>STEL</th>
<th>Peak</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>US ACGIH Threshold Limit</td>
<td>diethanolamine</td>
<td>Diethanolamine</td>
<td>1 mg/m³</td>
<td>NA</td>
<td>NA</td>
<td>TLV®</td>
</tr>
<tr>
<td>Values (TLV)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Basis: Liver &amp; kidney dam</td>
</tr>
<tr>
<td>US NIOSH Recommended Exposure</td>
<td>diethanolamine</td>
<td>DEA; Di(2-hydroxyethyl)amine; 15 mg/m³</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Limits (RELs)</td>
<td></td>
<td>2,2'-Dihydroxydiethyamine; 3 ppm</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Diolamine; bis(2-Hydroxyethyl)amine; 2,2'-Iminodiethanol</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

8.2 Emergency Limits

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Material name</th>
<th>TEEL-1</th>
<th>TEEL-2</th>
<th>TEEL-3</th>
</tr>
</thead>
<tbody>
<tr>
<td>diethanolamine</td>
<td>Diethanolamine</td>
<td>3 mg/m³</td>
<td>5.1 mg/m³</td>
<td>130 mg/m³</td>
</tr>
</tbody>
</table>
SAFTY DATA SHEET
According to Regulation (EC) No 1907/2006 (REACH)

Revision Date: September 5, 2017                              Version No.: 3

8.3 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.

8.4 Personal Protection

Eye and face protection
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 protection
See hand protection below

Hands/feet protection
Wear chemical protective gloves, e.g. PVC. Wear safety footwear or safety gumboots, e.g. Rubber NOTE: The material may produce skin sensitisation in predisposed individuals. Care must be taken, when removing gloves and other protective equipment, to avoid all possible skin contact. Contaminated leather items, such as shoes, belts and watch-bands should be removed and destroyed. The selection of suitable gloves does not only depend on the material, but also on further marks of quality which vary from manufacturer to manufacturer.

Other protection

8.5 Glove Index

Glove selection is based on a modified presentation of the: ‘Forsberg Clothing Performance Index’. The effect(s) of the following substance(s) are taken into account in the computer generated selection: CYCLORYL BSC

<table>
<thead>
<tr>
<th>Material</th>
<th>CPI</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUTYL</td>
<td>C</td>
</tr>
<tr>
<td>NATURAL RUBBER</td>
<td>C</td>
</tr>
<tr>
<td>NATURAL+NEOPRENE</td>
<td>C</td>
</tr>
<tr>
<td>NEOPRENE</td>
<td>C</td>
</tr>
<tr>
<td>NITRILE</td>
<td>C</td>
</tr>
<tr>
<td>PVA</td>
<td>C</td>
</tr>
<tr>
<td>PVC</td>
<td>C</td>
</tr>
<tr>
<td>TEFILON</td>
<td>C</td>
</tr>
<tr>
<td>VITON</td>
<td>C</td>
</tr>
</tbody>
</table>
SAFTY DATA SHEET
According to Regulation (EC) No 1907/2006 (REACH)

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* CPI - Chemwatch Performance Index
A: Best Selection
B: Satisfactory; may degrade after 4 hours continuous immersion
C: Poor to Dangerous Choice for other than short term immersion

NOTE:
As a series of factors will influence the actual performance of the glove, a final selection must be based on detailed observation. -
* Where the glove is to be used on a short term, casual or infrequent basis, factors such as 'feel' or convenience (e.g. disposability), may dictate a choice of gloves which might otherwise be unsuitable following long-term or frequent use. A qualified practitioner should be consulted.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic Physical and Chemical Properties
Appearance      Clear light liquid
Physical state      Liquid Relative density (Water = 1) 1.01
Odour      Not Available
Partition coefficient
n-octanol / water      Not Available
Odour threshold      Not Available
Auto-ignition temperature (°C)    Not Available
pH (as supplied)      Not Available
Decomposition temperature Not Available
Melting point / freezingpoint (°C)  100 Molecular weight (g/mol) Not Available
Viscosity (cSt)      Not Available
Initial boiling point and boiling range (°C)  100 Molecular weight (g/mol) Not Available
Flash point (°C)      >93.3
Taste      Not Available
Evaporation Rate      Not Available
 Explosive Properties      Not Available
Flammability      Not Applicable
 Oxidising properties      Not Available
Upper Explosive Limit (%)      Not Available
Surface Tension (dyn/cm or mN/m) Not Available
Lower Explosive Limit (%)      Not Available
Volatile Component (%vol)      Not Available
Vapour pressure (kPa) Not Available
Gas group Not Available
Solubility in water (g/L) Miscible
pH as a solution (10%)  6.0-8.0
Vapour density (Air = 1) Not Available
VOC g/L Not Available

SECTION 10 – STABILITY AND REACTIVITY

10.1 Chemical Stability
Unstable in the presence of incompatible materials. Product is considered stable. Hazardous polymerisation will not occur.
10.2 Conditions to Avoid

10.4 Hazardous Decomposition Products

SECTION 11 - TOXICOLOGICAL INFORMATION

11.1 Information on Toxicological Effects

Inhaled

The material is not thought to produce adverse health effects or irritation of the respiratory tract (as classified by EC Directives using animal models). Nevertheless, good hygiene practice requires that exposure be kept to a minimum and that suitable control measures be used in an occupational setting.

Ingestion

The material has NOT been classified by EC Directives or other classification systems as ‘harmful by ingestion’. This is because of the lack of corroborating animal or human evidence. The material may still be damaging to the health of the individual, following ingestion, especially where pre-existing organ (e.g. liver, kidney) damage is evident. Present definitions of harmful or toxic substances are generally based on doses producing mortality rather than those producing morbidity (disease, ill-health). Gastrointestinal tract discomfort may produce nausea and vomiting.

Skin Contact

Evidence exists, or practical experience predicts, that the material either produces inflammation of the skin in a substantial number of individuals following direct contact, and/or produces significant inflammation when applied to the healthy intact skin of animals, for up to four hours, such inflammation being present twenty-four hours or more after the end of the exposure period. Skin irritation may also be present after prolonged or repeated exposure; this may result in a form of contact dermatitis (nonallergic). The dermatitis is often characterised by skin redness (erythema) and swelling (oedema) which may progress to blistering (vesiculation), scaling and thickening of the epidermis. At the microscopic level there may be intercellular oedema of the spongy layer of the skin (spongiosis) and intracellular oedema of the epidermis. The material may accentuate any pre-existing dermatitis condition. Skin contact is not thought to have harmful health effects (as classified under EC Directives); the material may still produce health damage following entry through wounds, lesions or abrasions.

Eye

Evidence exists, or practical experience predicts, that the material may cause eye irritation in a substantial number of individuals and/or may 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 characterised 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 localised 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.

Practical experience shows that skin contact with the material is capable either of inducing a sensitisation reaction in a substantial number of individuals, and/or of producing a positive response in experimental animals. On the basis, primarily, of animal experiments, concern has been expressed by at least one classification body that the material may produce carcinogenic or mutagenic effects; in respect of the available information, however, there presently exists inadequate data for making a satisfactory assessment. Limited evidence suggests that repeated or long-term occupational exposure may produce cumulative health effects involving organs or biochemical systems. Limited evidence shows that inhalation of the material is capable of inducing a sensitisation reaction in a significant number of individuals at a greater frequency than would be expected from the response of a normal population. Pulmonary sensitisation, resulting in hyperactive airway dysfunction and pulmonary allergy may be accompanied by fatigue, malaise and aching.

11.2 CMR Status

| Category       | Substance     | US Environmental Defense Scorecard Suspected Carcinogens NTP-BR | US - California OEHHA/ARB - Chronic Reference Exposure Levels and Target Organs (CRELs) – Respiratory | US ACGIH Threshold Limit Values (TLV) - Skin|US - California Permissible Exposure Limits for Chemical Contaminants - Skin |
|----------------|---------------|---------------------------------------------------------------|-------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|
| CARCINOGEN     | diethanolamine|                                                               |                                                                                                 | X                                                                                         |
| RESPIRATORY    | diethanolamine| US - California OEHHA/ARB - Chronic Reference Exposure Levels and Target Organs (CRELs) – Respiratory | X                                                                                                 |                                                                                         |
| SKIN           | diethanolamine| US ACGIH Threshold Limit Values (TLV) - Skin|US - California Permissible Exposure Limits for Chemical Contaminants - Skin |                                                                                         |

SECTION 12 - ECOLOGICAL INFORMATION

12.1 Toxicity

Not available

12.2 Environmental Fate

The chain-length of the fatty acid in the sorbitan monoesters influences water solubility, boiling point and lipophilicity. The degree of esterification (monooleate versus trioleate) will also influence these properties. Hence, the water solubility of sorbitan monolaurate (C12 acid) (CAS:1338-39-2) is predicted to be much greater than that of sorbitan monostearate or sorbitan monooleate (C18 acids). The monooleate was predicted to have greater solubility in water than the corresponding sesquioleate or trioleate ester of sorbitan.

12.3 Biodegradation

The biodegradation of sorbitan monolaurate, sorbitan monooleate and sorbitan, fatty acid C6-10 tetraester (CAS 228573-47-5), has been reported.

SECTION 13 - DISPOSAL CONSIDERATIONS

13.1 Waste Treatment Methods

Containers may still present a chemical hazard/danger when empty. Return to supplier for reuse/recycling if possible.
Otherwise: If container can not be cleaned sufficiently well to ensure that residuals do not remain or if the container cannot be used to store the same product, then puncture containers, to prevent re-use, and bury at an authorised landfill. Where possible retain label warnings and MSDS and observe all notices pertaining to the product. Legislation addressing waste disposal requirements may differ by country, state and/ or territory.

SECTION 14 – TRANSPORTATION INFORMATION

14.1 Labels Required

<table>
<thead>
<tr>
<th>Source</th>
<th>Ingredient</th>
<th>Pollution Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>IMO MARPOL 73/78 (Annex II) - List of Noxious Liquid Substances Carried in Bulk</td>
<td>diethanolamine</td>
<td>Y</td>
</tr>
</tbody>
</table>

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

SECTION 15 – REGULATORY INFORMATION

15.1 Safety, health and environmental regulations / legislation specific for the substance or mixture

- diethanolamine (111-42-2) is found on the following regulatory lists:

- Ethylene Oxide (75-21-8) is found
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on the following regulatory lists
1,4-dioxane(123-91-1) is
found on the following
regulatory lists
Acetic acid,
2,2-dichloro-(79-43-6) is
found on the following
regulatory lists

'US - California Proposition 65 - Carcinogens','US - California Proposition 65 - Birth Defects or Other Reproductive Harm'

National Inventory
Australia - AICS
Canada – DSL
China - IECSC
Europe - EINEC / ELINCS / NLP
Japan - ENCS
Korea - KECI
New Zealand - NZIoC
Philippines - PICCS
USA - TSCA
Legend:

Status
N (isothiazolinones, mixed)
Y

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

Ingredients with multiple cas numbers
Name
isothiazolinones, mixed
CAS No
55965-84-9, 96118-96-6

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