

Section 1. Identification

| Product name | : TRETOLITE™ DMO8042Y DEMULSIFIER |
|--|--|
| | ™ a trademark of Baker Hughes Incorporated. |
| Product code | : DMO8042Y |
| Relevant identified uses of | of the substance or mixture and uses advised against |
| Identified uses | : Demulsifier. |
| Print date | : 12/5/2014. |
| Validation date | : 12/5/2014. |
| Version | : 1 |
| Supplier's details | : Baker Petrolite A Baker Hughes Company 12645 W. Airport Blvd. Sugar Land, TX 77478 For Product Information/MSDSs Call: 800-231-3606 (8:00 a.m 5:00 p.m. cst, Monday - Friday) 281-276-5400 |
| Emergency telephone number (with hours of operation) | CHEMTREC: 800-424-9300 (U.S. 24 hour) Baker Petrolite: 800-231-3606 (001)281-276-5400 CANUTEC: 613-996-6666 (Canada 24 hours) CHEMTREC Int'l 01-703-527-3887 (International 24 hour) |

Section 2. Hazards identification

| OSHA/HCS status | : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200). |
|--|--|
| Classification of the substance or mixture | FLAMMABLE LIQUIDS - Category 3 SKIN CORROSION/IRRITATION - Category 1 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1 CARCINOGENICITY - Category 1 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) [Respiratory tract irritation and Narcotic effects] - Category 3 AQUATIC HAZARD (LONG-TERM) - Category 2 |
| GHS label elements | |
| Hazard pictograms | |
| Signal word | : Danger |
| Hazard statements | Flammable liquid and vapor. Causes severe skin burns and eye damage. May cause cancer. May cause respiratory irritation. May cause drowsiness and dizziness. Toxic to aquatic life with long lasting effects. |
| Precautionary statements | |

Precautionary statements

Section 2. Hazards identification

| Prevention | : Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required. Wear protective gloves. Wear eye or face protection. Wear protective clothing. Keep away from heat, sparks, open flames and hot surfaces No smoking. Use explosion-proof electrical, ventilating, lighting and all material-handling equipment. Use only non- sparking tools. Take precautionary measures against static discharge. Keep container tightly closed. Use only outdoors or in a well-ventilated area. Avoid release to the environment. Avoid breathing vapor. Wash hands thoroughly after handling. |
|----------------------------------|--|
| Response | : Collect spillage. IF exposed or concerned: Get medical attention. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or physician. IF SWALLOWED: Immediately call a POISON CENTER or physician. Rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. Wash contaminated clothing before reuse. Immediately call a POISON CENTER or physician. 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 physician. |
| Storage | : Store locked up. Store in a well-ventilated place. Keep cool. |
| Disposal | : Dispose of contents and container in accordance with all local, regional, national and international regulations. |
| Hazards not otherwise classified | : None known. |

Section 3. Composition/information on ingredients

Substance/mixture

: Mixture

| Ingredient name | % | CAS number |
|-------------------------------|---------|---------------|
| Light aromatic naphtha | 20 - 30 | 64742-95-6 |
| 1,2,4-Trimethylbenzene | 10 - 20 | 95-63-6 |
| Alkyl benzenesulfonic acid | 10 - 20 | 68584-22-5 |
| 2-Ethylhexanol | 5 - 10 | 104-76-7 |
| 1,3,5-Trimethylbenzene | 5 - 10 | 108-67-8 |
| Xylene | 1 - 5 | 1330-20-7 |
| 1,2,3-Trimethylbenzene | 1 - 5 | 526-73-8 |
| Ammonium alkylaryl sulfonates | 1 - 5 | Trade secret. |
| Cumene | 0.1 - 1 | 98-82-8 |
| Ethylbenzene | 0.1 - 1 | 100-41-4 |
| Sulfuric acid | 0.1 - 1 | 7664-93-9 |

Section 4. First aid measures

| Description of necessar | <u>y first aid measures</u> |
|-------------------------|---|
| Eye contact | : Get medical attention immediately. Call a poison center or physician. Immediately flush the eye(s) continuously with lukewarm, gently flowing water for at least 20-60 minutes while holding the eyelid(s) open. Check for and remove any contact lenses. Chemical burns must be treated promptly by a physician. |
| Inhalation | : Get medical attention immediately. Call a poison center or physician. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed |

Section 4. First aid measures

| | person may need to be kept under medical surveillance for 48 hours. |
|--------------|--|
| Skin contact | : Get medical attention immediately. Call a poison center or physician. Wash affected area with soap and mild detergent for at least 20 - 60 minutes. Wash contaminated skin with soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Chemical burns must be treated promptly by a physician. Wash clothing before reuse. Clean shoes thoroughly before reuse. |
| Ingestion | : Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Chemical burns must be treated promptly by a physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. |

Most important symptoms/effects, acute and delayed

| Potential acute health effe | | | | | | |
|-----------------------------|---|-------|--|--|--|--|
| Eye contact | Causes serious eye damage. | | | | | |
| Inhalation | Can cause central nervous system (CNS) depression. May cause drowsiness and dizziness. May cause respiratory irritation. Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure. | | | | | |
| Skin contact | Causes severe burns. | | | | | |
| Ingestion | Can cause central nervous system (CNS) depression. May cause burns to mouthroat and stomach. | uth, | | | | |
| Over-exposure signs/sym | <u>ns</u> | | | | | |
| Eye contact | pain,watering,redness | | | | | |
| Inhalation | respiratory tract irritation,coughing,nausea or vomiting,headache,drowsiness/fat dizziness/vertigo,unconsciousness | igue, | | | | |
| Skin contact | pain or irritation, redness, blistering may occur | | | | | |
| Ingestion | stomach pains | | | | | |
| Indication of immediate me | al attention and special treatment needed, if necessary | | | | | |
| Notes to physician | In case of inhalation of decomposition products in a fire, symptoms may be dela The exposed person may need to be kept under medical surveillance for 48 hours | | | | | |
| Specific treatments | No specific treatment. | | | | | |
| Protection of first-aiders | No action shall be taken involving any personal risk or without suitable training. | | | | | |

suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

Additional information

If product is ingested and vomiting occurs naturally, have person lean forward to reduce the risk of aspiration into the lungs.

Section 5. Fire-fighting measures

| - | |
|--|--|
| Extinguishing media | |
| Suitable extinguishing media | : Use dry chemical, CO ₂ , water spray (fog) or foam. |
| Unsuitable extinguishing media | : Do not use water jet. |
| Specific hazards arising from the chemical | : Flammable liquid and vapor. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. The vapor/gas is heavier than air and will spread along the ground. Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. Runoff to sewer may create fire or explosion hazard. This material is toxic to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain. |
| Hazardous thermal decomposition products | : carbon dioxide,carbon monoxide,nitrogen oxides,sulfur oxides |
| Special protective actions for fire-fighters | Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool. |
| Special protective equipment for fire-fighters | : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. |

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

| For non-emergency personnel | : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment. |
|--------------------------------|---|
| For emergency responders | : If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel". |
| Environmental precautions | : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities. Collect spillage. |
| Methods and materials for co | ntainment and cleaning up |
| Small spill | : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor. |
| Large spill | : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Dike spill area and do not allow product to reach sewage system or surface or ground water. Notify any reportable spill to authorities. (See section 12 for environmental risks and 13 for disposal information.) Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). The spilled material may be neutralized with sodium carbonate, sodium bicarbonate or sodium hydroxide. Dispose of via a licensed waste |

Section 6. Accidental release measures

disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

If RQ (Reportable Quantity) is exceeded, report to National Spill Response Office at 1-800-424-8802.

Section 7. Handling and storage

| Precautions for safe handling | 1 |
|--|--|
| Protective measures | : Put on appropriate personal protective equipment (see Section 8). Avoid exposure - obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Avoid release to the environment. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Keep away from alkalis. Empty containers retain product residue and can be hazardous. Do not reuse container. |
| Advice on general occupational hygiene | : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures. |
| Conditions for safe storage, including any incompatibilities | : Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from alkalis. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. |

Section 8. Exposure controls/personal protection

| Control parameters | | | | | | | | | | |
|------------------------------|--|--|---|--|---|--|--|---|---|---|
| Occupational exposure limits | | TWA (8 hours) | | | STEL (15 mins) | | | g | | |
| List name | ppm | mg/m³ | Other | ppm | mg/m³ | Other | ppm | mg/m³ | Other | Notations |
| US ACGIH | 25 | 123 | - | - | - | - | - | - | - | |
| US ACGIH | 25 | 123 | - | - | - | - | - | - | - | |
| US ACGIH | 100 | 434 | - | - 150 | - 651 | - | - | - | - | |
| OSHA PEL 1989 | 100 | 435 | - | - 150 | - 655 | - | - | - | - | |
| OSHA PEL 1989 | 25 | 123 125 | - - | - | - | - | - - | - | - | |
| OSHA PEL | 50 | - 245 | - | - | - | - | - | - | - | [1] [1] |
| US ACGIH | 20 | - | - - | - | - | - | - | - | - | [1] |
| OSHA PEL 1989 | 100 100 | 435 | - | - 125 | - 545 | - | - | - | - | |
| OSHA PEL | - | 0.2 | - | - | - | - | - | - | - | [a] |
| | List name US ACGIH OSHA PEL 1989 US ACGIH | List name ppm US ACGIH 25 OSHA PEL 1989 25 US ACGIH 25 OSHA PEL 1989 25 US ACGIH 100 OSHA PEL 1989 100 OSHA PEL 100 OSHA PEL 100 OSHA PEL 100 OSHA PEL 100 US ACGIH 25 OSHA PEL 1989 100 US ACGIH 50 OSHA PEL 1989 50 US ACGIH 20 OSHA PEL 1989 100 US ACGIH 20 OSHA PEL 1989 100 US ACGIH - OSHA PEL 1989 100 US ACGIH - OSHA PEL - | List name ppm mg/m³ US ACGIH 25 123 OSHA PEL 1989 25 125 US ACGIH 25 123 OSHA PEL 1989 25 125 US ACGIH 25 123 OSHA PEL 1989 25 125 US ACGIH 100 434 OSHA PEL 100 435 OSHA PEL 100 435 US ACGIH 25 123 OSHA PEL 1989 100 435 US ACGIH 25 123 0 SHA PEL 1989 25 125 US ACGIH 50 - 0 OSHA PEL 50 245 0 OSHA PEL 100 435 0 US ACGIH 20 - 0 35 OSHA PEL 100 435 0 435 US ACGIH 20 - 0.2 0 OSHA PEL 1989 <t< td=""><td>List name ppm mg/m³ Other US ACGIH 25 123 - OSHA PEL 1989 25 125 - US ACGIH 25 123 - OSHA PEL 1989 25 125 - US ACGIH 25 123 - OSHA PEL 1989 25 125 - US ACGIH 100 434 - OSHA PEL 100 435 - OSHA PEL 100 435 - US ACGIH 25 123 - OSHA PEL 1989 100 435 - US ACGIH 25 123 - - OSHA PEL 1989 25 125 - US ACGIH 50 - - - OSHA PEL 50 245 - - OSHA PEL 100 435 - - OSHA PEL 100 435 - -<td>List name ppm mg/m³ Other ppm US ACGIH 25 123 - - OSHA PEL 1989 25 125 - - US ACGIH 25 123 - - US ACGIH 25 123 - - OSHA PEL 1989 25 125 - - US ACGIH 100 434 - 150 OSHA PEL 100 435 - - OSHA PEL 1989 25 125 - - US ACGIH 50 - - - - OSHA PEL 50 245 - - - OSHA PEL 100 435 - - - OSHA PEL 100 435</td><td>List name ppm mg/m³ Other ppm mg/m³ US ACGIH 25 123 - - - - OSHA PEL 1989 25 125 - - - - US ACGIH 25 123 - - - - US ACGIH 25 123 - - - - US ACGIH 25 125 - - - - US ACGIH 100 434 - 150 651 OSHA PEL 100 435 - - - OSHA PEL 100 435 - - - OSHA PEL 100 435 - - - OSHA PEL 50 245 - - - US ACGIH 20 - - - - OSHA PEL 100 435 - - - OSHA PEL 100</td><td>List name ppm mg/m³ Other ppm mg/m³ Other US ACGIH 25 123 - - - - - OSHA PEL 1989 25 125 - - - - - US ACGIH 25 123 - - - - - US ACGIH 25 123 - - - - - US ACGIH 25 125 - - - - - US ACGIH 100 434 - 150 651 - OSHA PEL 100 435 - - - - - OSHA PEL 100 435 - - - - - OSHA PEL 100 435 - - - - - US ACGIH 25 123 - - - - - OSHA PEL 1989</td><td>List name ppm mg/m³ Other ppm mg/m³ Other ppm US ACGIH 25 123 -</td><td>List name ppm mg/m³ Other ppm mg/m³ US ACGIH 25 123 -</td><td>List name ppm mg/m³ Other D D D</td></td></t<> | List name ppm mg/m³ Other US ACGIH 25 123 - OSHA PEL 1989 25 125 - US ACGIH 25 123 - OSHA PEL 1989 25 125 - US ACGIH 25 123 - OSHA PEL 1989 25 125 - US ACGIH 100 434 - OSHA PEL 100 435 - OSHA PEL 100 435 - US ACGIH 25 123 - OSHA PEL 1989 100 435 - US ACGIH 25 123 - - OSHA PEL 1989 25 125 - US ACGIH 50 - - - OSHA PEL 50 245 - - OSHA PEL 100 435 - - OSHA PEL 100 435 - - <td>List name ppm mg/m³ Other ppm US ACGIH 25 123 - - OSHA PEL 1989 25 125 - - US ACGIH 25 123 - - US ACGIH 25 123 - - OSHA PEL 1989 25 125 - - US ACGIH 100 434 - 150 OSHA PEL 100 435 - - OSHA PEL 1989 25 125 - - US ACGIH 50 - - - - OSHA PEL 50 245 - - - OSHA PEL 100 435 - - - OSHA PEL 100 435</td> <td>List name ppm mg/m³ Other ppm mg/m³ US ACGIH 25 123 - - - - OSHA PEL 1989 25 125 - - - - US ACGIH 25 123 - - - - US ACGIH 25 123 - - - - US ACGIH 25 125 - - - - US ACGIH 100 434 - 150 651 OSHA PEL 100 435 - - - OSHA PEL 100 435 - - - OSHA PEL 100 435 - - - OSHA PEL 50 245 - - - US ACGIH 20 - - - - OSHA PEL 100 435 - - - OSHA PEL 100</td> <td>List name ppm mg/m³ Other ppm mg/m³ Other US ACGIH 25 123 - - - - - OSHA PEL 1989 25 125 - - - - - US ACGIH 25 123 - - - - - US ACGIH 25 123 - - - - - US ACGIH 25 125 - - - - - US ACGIH 100 434 - 150 651 - OSHA PEL 100 435 - - - - - OSHA PEL 100 435 - - - - - OSHA PEL 100 435 - - - - - US ACGIH 25 123 - - - - - OSHA PEL 1989</td> <td>List name ppm mg/m³ Other ppm mg/m³ Other ppm US ACGIH 25 123 -</td> <td>List name ppm mg/m³ Other ppm mg/m³ US ACGIH 25 123 -</td> <td>List name ppm mg/m³ Other D D D</td> | List name ppm mg/m³ Other ppm US ACGIH 25 123 - - OSHA PEL 1989 25 125 - - US ACGIH 25 123 - - US ACGIH 25 123 - - OSHA PEL 1989 25 125 - - US ACGIH 100 434 - 150 OSHA PEL 100 435 - - OSHA PEL 1989 25 125 - - US ACGIH 50 - - - - OSHA PEL 50 245 - - - OSHA PEL 100 435 - - - OSHA PEL 100 435 | List name ppm mg/m³ Other ppm mg/m³ US ACGIH 25 123 - - - - OSHA PEL 1989 25 125 - - - - US ACGIH 25 123 - - - - US ACGIH 25 123 - - - - US ACGIH 25 125 - - - - US ACGIH 100 434 - 150 651 OSHA PEL 100 435 - - - OSHA PEL 100 435 - - - OSHA PEL 100 435 - - - OSHA PEL 50 245 - - - US ACGIH 20 - - - - OSHA PEL 100 435 - - - OSHA PEL 100 | List name ppm mg/m³ Other ppm mg/m³ Other US ACGIH 25 123 - - - - - OSHA PEL 1989 25 125 - - - - - US ACGIH 25 123 - - - - - US ACGIH 25 123 - - - - - US ACGIH 25 125 - - - - - US ACGIH 100 434 - 150 651 - OSHA PEL 100 435 - - - - - OSHA PEL 100 435 - - - - - OSHA PEL 100 435 - - - - - US ACGIH 25 123 - - - - - OSHA PEL 1989 | List name ppm mg/m³ Other ppm mg/m³ Other ppm US ACGIH 25 123 - | List name ppm mg/m³ Other ppm mg/m³ US ACGIH 25 123 - | List name ppm mg/m³ Other D D D |

Section 8. Exposure controls/personal protection

[1]Absorbed through skin. **Form:** [a]Thoracic fraction

Consult local authorities for acceptable exposure limits.

Only components of this product with established exposure limits appear in the box above.

If OSHA permissible exposure levels are shown above they are the OSHA 1989 levels or are from subsequent OSHA regulatory actions. Although the 1989 levels have been vacated the 11th Circuit Court of Appeals, Baker Hughes recommends that these lower exposure levels be observed as reasonable worker protection.

Appropriate engineering controls : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Individual protection measures

| Hygiene measures | : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location. |
|------------------------|---|
| Eye/face protection | Wear chemical safety goggles. When transferring material wear face-shield in addition to chemical safety goggles. If inhalation hazards exist, a full-face respirator may be required instead. |
| Hand protection | : Chemical-resistant gloves. |
| Skin protection | : Wear long sleeves and chemical resistant apron to prevent repeated or prolonged skin contact. |
| Respiratory protection | : If a risk assessment indicates it is necessary, use a properly fitted, air purifying or supplied air respirator complying with an approved standard. 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. |

Section 9. Physical and chemical properties

| <u>Appearance</u> | |
|--|--|
| Physical state | : Liquid. |
| Color | : Amber. |
| Odor | : Aromatic solvent. |
| Odor threshold | : Not available. |
| рН | : 2 |
| | : 5% of product |
| Melting/freezing point | : Not available. |
| Boiling point | : Not available. |
| Initial Boiling Point | : Not available. |
| Flash point | : Closed cup: 40°C (104°F) [PMCC] |
| Burning time | : Not applicable. |
| Burning rate | : Not applicable. |
| Evaporation rate | : Not available. |
| Flammability (solid, gas) | : Flammable in the presence of the following materials or conditions: open flames, sparks and static discharge and heat. |
| Lower and upper explosive (flammable) limits | : Not available. |

Section 9. Physical and chemical properties

| Vapor pressure | : Not available. |
|---------------------------|------------------|
| Vapor density | : >1 [Air = 1] |
| Relative density | : 0.929 (15.6°C) |
| Density | : 7.74 (lbs/gal) |
| Solubility in water | : Insoluble |
| Partition coefficient: n- | : Not available. |
| octanol/water | |
| Auto-ignition temperature | : Not available. |
| Decomposition temperature | : Not available. |
| Viscosity | : Not available. |
| VOC | : Not available. |
| Pour Point | : Not available. |

Section 10. Stability and reactivity

| Reactivity | : No specific test data related to reactivity available for this product or its ingredients. |
|------------------------------------|--|
| Chemical stability | : The product is stable. |
| Possibility of hazardous reactions | : Under normal conditions of storage and use, hazardous reactions will not occur. |
| Conditions to avoid | : Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition. Do not allow vapor to accumulate in low or confined areas. |
| Incompatible materials | : Reactive or incompatible with the following materials: oxidizing materials, acids and alkalis. |
| Hazardous decomposition products | : Under normal conditions of storage and use, hazardous decomposition products should not be produced. |

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

| Product/ingredient name | Result | Species | Dose | Exposure |
|----------------------------|-----------------------|----------|-------------------------|----------|
| Light aromatic naphtha | LD50 Oral | Rat | 2900 mg/kg | - |
| 1,2,4-Trimethylbenzene | LC50 Inhalation Vapor | Rat | 18000 mg/m ³ | 4 hours |
| - | LD50 Oral | Rat | 5 g/kg | - |
| Alkyl benzenesulfonic acid | LD50 Dermal | Rabbit | 2000 mg/kg | - |
| - | LD50 Oral | Rat | 775 mg/kg | - |
| 2-Ethylhexanol | LC50 Inhalation Vapor | Rat | 0.89 mg/l | 4 hours |
| - | LD50 Dermal | Rabbit | 1970 mg/kg | - |
| | LD50 Oral | Rat | 2049 mg/kg | - |
| 1,3,5-Trimethylbenzene | LC50 Inhalation Vapor | Rat | 24000 mg/m ³ | 4 hours |
| | LD50 Oral | Rat | 5000 mg/kg | - |
| Xylene | LC50 Inhalation Gas. | Rat | 5000 ppm | 4 hours |
| | LD50 Dermal | Rabbit | >1700 mg/kg | - |
| | LD50 Oral | Male rat | 3523 mg/kg | - |
| | LD50 Oral | Rat | 4300 mg/kg | - |
| Cumene | LC50 Inhalation Vapor | Mouse | 10000 mg/m ³ | 7 hours |
| | LC50 Inhalation Vapor | Rat | 39000 mg/m ³ | 4 hours |
| | | | | |

Section 11. Toxicological information

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|---------------|-------------|--------|-------------|---|
| | LD50 Dermal | Rabbit | 10600 mg/kg | - |
| | LD50 Oral | Rat | 2.9 g/kg | - |
| Ethylbenzene | LD50 Dermal | Rabbit | 15400 mg/kg | - |
| | LD50 Oral | Rat | 3500 mg/kg | - |
| Sulfuric acid | LD50 Oral | Rat | 2140 mg/kg | - |

Irritation/Corrosion

No applicable toxicity data

Sensitization

No applicable toxicity data

Mutagenicity

No applicable toxicity data

Carcinogenicity

| Product/ingredient name | OSHA | IARC | NTP |
|-------------------------|------|------|--|
| Xylene | - | 3 | - |
| Cumene | | 2B | Reasonably anticipated to be a human carcinogen. |
| Ethylbenzene | | 2B | - |
| Sulfuric acid | | 1 | Known to be a human carcinogen. |

Reproductive toxicity

No applicable toxicity data

Teratogenicity

No applicable toxicity data

Specific target organ toxicity (single exposure)

| Name | Category | Route of exposure | Target organs |
|--|--------------------------|------------------------------------|---|
| Light aromatic naphtha 1,2,4-Trimethylbenzene | Category 3 Category 3 | Not applicable. Not applicable. | Narcotic effects Respiratory tract irritation |
| 2-Ethylhexanol | Category 3 | Not applicable. | Respiratory tract irritation |
| 1,3,5-Trimethylbenzene | Category 3 | Not applicable. | Respiratory tract irritation |
| Xylene | Category 3 | Not applicable. | Narcotic effects |
| 1,2,3-Trimethylbenzene | Category 3 | Not applicable. | Respiratory tract irritation |
| Cumene | Category 3 | Not applicable. | Respiratory tract irritation |
| Sulfuric acid | Category 3 | Not applicable. | Respiratory tract irritation |

Specific target organ toxicity (repeated exposure)

Not applicable.

Aspiration hazard

| Name | Result |
|--------|--------------------------------|
| 0 | ASPIRATION HAZARD - Category 1 |
| Xylene | ASPIRATION HAZARD - Category 1 |
| | ASPIRATION HAZARD - Category 1 |
| Cumene | ASPIRATION HAZARD - Category 1 |

Section 11. Toxicological information

Information on the likely routes of exposure

: Routes of entry anticipated: Dermal, Inhalation.

Delayed and immediate effects and also chronic effects from short and long term exposure

| Short term exposure | | |
|--------------------------------|--|--|
| Potential immediate effects | Not available. | |
| Potential delayed effects | Not available. | |
| Potential chronic health eff | <u>ts</u> | |
| General | No known significant effects or critical hazards. | |
| Carcinogenicity | : May cause cancer. Risk of cancer depends on duration and level of exposure | |
| Mutagenicity | No known significant effects or critical hazards. | |
| Teratogenicity | No known significant effects or critical hazards. | |
| Developmental effects | No known significant effects or critical hazards. | |
| Fertility effects | No known significant effects or critical hazards. | |

Numerical measures of toxicity

Acute toxicity estimates

| Route | ATE value | |
|---------------------|---------------|--|
| Oral | 2561.4 mg/kg | |
| Dermal | 10670.9 mg/kg | |
| Inhalation (gases) | 135583 ppm | |
| Inhalation (vapors) | 57.11 mg/l | |

Section 12. Ecological information

<u>Toxicity</u>

| Product/ingredient name | Result | Species | Exposure |
|----------------------------|---|---|----------|
| 1,2,4-Trimethylbenzene | Acute LC50 4910 µg/l Marine water | Crustaceans - Elasmopus pectenicrus | 48 hours |
| | Acute LC50 22.4 mg/l Fresh water | Fish - Tilapia zillii | 96 hours |
| Alkyl benzenesulfonic acid | Acute EC50 5.65 mg/l Fresh water | Crustaceans - Ceriodaphnia dubia | 48 hours |
| 2-Ethylhexanol | Acute LC50 75 mg/dm3 Fresh water | Fish - Oncorhynchus mykiss | 96 hours |
| 1,3,5-Trimethylbenzene | Acute LC50 12520 to 15050 µg/l Fresh water | Fish - Carassius auratus | 96 hours |
| | Chronic NOEC 400 µg/l Fresh water | Daphnia - Daphnia magna | 21 days |
| Xylene | Acute LC50 8500 µg/l Marine water | Crustaceans - Palaemonetes pugio | 48 hours |
| | Acute LC50 13400 µg/l Fresh water | Fish - Pimephales promelas | 96 hours |
| Cumene | Acute EC50 2600 µg/l Fresh water | Algae - Pseudokirchneriella subcapitata | 72 hours |
| | Acute LC50 7400 to 11290 µg/l Fresh water | Crustaceans - Artemia sp. | 48 hours |
| | Acute LC50 30500 µg/l Fresh water | Daphnia - Daphnia magna | 48 hours |
| | Acute LC50 2700 µg/l Fresh water | Fish - Oncorhynchus mykiss | 96 hours |
| Ethylbenzene | Acute EC50 4600 µg/l Fresh water | Algae - Pseudokirchneriella subcapitata | 72 hours |
| | Acute EC50 2930 to 4400 µg/l Fresh water | Daphnia - Daphnia magna | 48 hours |
| 2/5/2014. | DMO8042Y | | 9/12 |

Section 12. Ecological information

| | Acute LC50 5200 µg/l Marine water | Crustaceans - Americamysis bahia | 48 hours |
|---------------|--|--|----------------------|
| | Acute LC50 4200 μg/l Fresh water Chronic NOEC 1000 μg/l Fresh water | Fish - Oncorhynchus mykiss Algae - Pseudokirchneriella | 96 hours 96 hours |
| Sulfuric acid | Acute LC50 42500 µg/l Marine water | subcapitata | 19 hours |
| | Acute LC50 42500 µg/i Marine water Acute LC50 42 ppm Fresh water | Crustaceans - Pandalus montagui Fish - Gambusia affinis | 96 hours |

Persistence and degradability

Not available.

Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods
 The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

| | DOT Classification | TDG Classification | IMDG | IATA |
|-------------------------------|--|--|--|--|
| UN number | UN2924 | UN2924 | UN2924 | UN2924 |
| UN proper shipping name | FLAMMABLE LIQUID, CORROSIVE, N.O.S. (Contains: Light aromatic naphtha, Alkyl benzenesulfonic acid) |
| Transport hazard class(es) | 3 (8) | 3 (8) | 3 (8) | 3 (8) |
| Packing group | Ш | Ш | 111 | 111 |
| Environmental hazards | Yes. | Yes. | Yes. | No. |
| 2/5/2014 | | | | 10/12 |

Special precautions for user : Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

| Transport in bulk according: Not available.to Annex II of MARPOL73/78 and the IBC Code | | | | | |
|--|--|--|--|--|--|
| DOT Reportable Quantity | Xylene, 350 gal of this product. | | | | |
| Marine pollutant | Light aromatic naphtha 1,2,4-Trimethylbenzene | | | | |

North-America NAERG : 132

Section 15. Regulatory information

| U.S. Federal regulations | : TSCA 12(b) one-time export: No products were found. |
|--------------------------|--|
| | TSCA 12(b) annual export notification: No products were found. |
| | United States inventory (TSCA 8b): All components are listed or exempted. |
| | Clean Water Act (CWA) 307: Naphthalene; Ethylbenzene |
| | Clean Water Act (CWA) 311: xylene; Naphthalene; sulphuric acid; Ethylbenzene |

Clean Air Act Section 112 : Listed (b) Hazardous Air Pollutants (HAPs)

SARA 302/304

| | | | SARA 302 TPQ | | SARA 304 RQ | |
|---------------------------------|------------------|--------------|--------------|-----------|-------------|-----------|
| Name | % | EHS | (lbs) | (gallons) | (lbs) | (gallons) |
| Sulfuric acid Sulfur dioxide | 0.1 - 1 < 0.1 | Yes. Yes. | 1000 500 | 66.3 - | 1000 500 | 66.3 - |

SARA 311/312

Classification

: Fire hazard

Immediate (acute) health hazard Delayed (chronic) health hazard

SARA 313

| | Product name | CAS number | % |
|-----------------------|--------------|------------|-----------------------------|
| Supplier notification | Xylene | 1330-20-7 | 10 - 20 1 - 5 0.1 - 1 |

Canada

Canada (CEPA DSL):

: All components are listed or exempted.

Section 16. Other information

National Fire Protection Association (U.S.A.)



History

Date of printing : 12/5/2014.

✓ Indicates information that has changed from previously issued version.

Notice to reader

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