

Section 1. Identification

Product name : CRO195 CORROSION INHIBITOR
Product code : CRO195

Relevant identified uses of the substance or mixture and uses advised against

Identified uses : Corrosion Inhibitor

Print date : 3/9/2015.

Validation date : 3/9/2015.

Version : 1

Supplier's details : Baker Petrolite
A Baker Hughes Company
12645 W. Airport Blvd.
Sugar Land, TX 77478
For Product Information/SDSs 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
ACUTE TOXICITY: ORAL - Category 4
SKIN CORROSION/IRRITATION - Category 1
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1
CARCINOGENICITY - Category 2
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE): ORAL [optic nerve] - Category 1
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) [Respiratory tract irritation and Narcotic effects] - Category 3
AQUATIC HAZARD (ACUTE) - Category 3
AQUATIC HAZARD (LONG-TERM) - Category 2

GHS label elements

Hazard pictograms :



Signal word : Danger

Section 2. Hazards identification

| | |
|---|---|
| Hazard statements | : Flammable liquid and vapor. Harmful if swallowed. Causes severe skin burns and eye damage. Suspected of causing cancer. Causes damage to organs if swallowed. (optic nerve) May cause respiratory irritation. May cause drowsiness and dizziness. Toxic to aquatic life with long lasting effects. |
| <u>Precautionary statements</u> | |
| 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: > 8 hours (breakthrough time): Nitrile or Neoprene 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. Do not breathe vapor. Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling. |
| Response | : Collect spillage. IF exposed: Call a POISON CENTER or physician. 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. |

Additional information

The NIOSH IDLH (Immediately Dangerous to Life and Health) value for hydrogen sulfide is 100 ppm. Hydrogen sulfide odor is not a good warning property. The human sense of smell may become "fatigued" after a few minutes of exposure to hydrogen sulfide and no longer be able to detect the odor. See Section 11 for more detailed information on health effects and symptoms.

Section 3. Composition/information on ingredients

Substance/mixture : Mixture

| Ingredient name | % | CAS number |
|------------------------------|---------|---------------|
| Light aromatic naphtha | 30 - 40 | 64742-95-6 |
| 1,2,4-Trimethylbenzene | 20 - 30 | 95-63-6 |
| Phosphates | 5 - 10 | Trade secret. |
| Quaternary ammonium chloride | 5 - 10 | Trade secret. |
| 1,3,5-Trimethylbenzene | 5 - 10 | 108-67-8 |
| 1,2,3-Trimethylbenzene | 1 - 5 | 526-73-8 |
| Amine derivative | 1 - 5 | Trade secret. |
| Methanol | 1 - 5 | 67-56-1 |
| Xylene | 1 - 5 | 1330-20-7 |
| Cumene | 0.1 - 1 | 98-82-8 |
| Fatty amine | 0.1 - 1 | Trade secret. |
| Hydrogen sulfide | < 0.1 | 7783-06-4 |

Section 3. Composition/information on ingredients

Additional information

The 0.1% (1000 ppm) maximum hydrogen sulfide (H₂S) content shown above is for the liquid phase. The headspace of containers of this product may contain levels of H₂S higher than this.

Section 4. First aid measures

Description of necessary first aid measures

- 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 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. Flush contaminated skin with plenty of 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 effects

- 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** : Harmful if swallowed. Causes damage to organs following a single exposure if swallowed. Can cause central nervous system (CNS) depression. May cause burns to mouth, throat and stomach.

Over-exposure signs/symptoms

- Eye contact** : pain, watering, redness
- Inhalation** : respiratory tract irritation, coughing, nausea or vomiting, headache, drowsiness/fatigue, dizziness/vertigo, unconsciousness
- Skin contact** : pain or irritation, redness, blistering may occur
- Ingestion** : stomach pains

Section 4. First aid measures

Indication of immediate medical attention and special treatment needed, if necessary

- Notes to physician** : In case of inhalation of decomposition products in a fire, symptoms may be delayed. 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. If it is 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)

Section 5. Fire-fighting measures

Extinguishing media

- Suitable extinguishing media** : Use dry chemical, CO₂, 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, phosphorus 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.

Section 6. Accidental release measures

Methods and materials for containment 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). Dispose of via a licensed waste 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.

Additional information

Released material may contain residual sulfides. Spray residual material left after initial clean up with weak (approximately 5 percent) hydrogen peroxide to oxidize sulfides. Recover as much solution as possible. A respirator suitable for H₂S may be necessary in the event of a spill.

Section 7. Handling and storage

Precautions for safe handling

- 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. 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 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.

Additional information

Avoid inhalation of vapors near openings on storage containers and manufacturing equipment. This product should be transferred under negative pressure.

Section 8. Exposure controls/personal protection

Control parameters

| Occupational exposure limits | | TWA (8 hours) | | | STEL (15 mins) | | | Ceiling | | | |
|------------------------------|---------------|---------------|-------------------|-------|----------------|-------------------|-------|---------|-------------------|-------|-----------|
| Ingredients: | List name | ppm | mg/m ³ | Other | ppm | mg/m ³ | Other | ppm | mg/m ³ | Other | Notations |
| Hydrogen sulfide | US ACGIH | 1 | - | - | 5 | - | - | - | - | - | |
| | OSHA PEL 1989 | 10 | 14 | - | 15 | 21 | - | - | - | - | |
| | OSHA PEL Z2 | - | - | - | - | - | - | 20 | - | - | |
| 1,2,4-Trimethylbenzene | US ACGIH | 25 | 123 | - | - | - | - | - | - | - | |
| | OSHA PEL 1989 | 25 | 125 | - | - | - | - | - | - | - | |
| 1,3,5-Trimethylbenzene | US ACGIH | 25 | 123 | - | - | - | - | - | - | - | |
| | OSHA PEL 1989 | 25 | 125 | - | - | - | - | - | - | - | |
| 1,2,3-Trimethylbenzene | US ACGIH | 25 | 123 | - | - | - | - | - | - | - | |
| | OSHA PEL 1989 | 25 | 125 | - | - | - | - | - | - | - | |
| Methanol | US ACGIH | 200 | 262 | - | 250 | 328 | - | - | - | - | [1] |
| | OSHA PEL | 200 | 260 | - | - | - | - | - | - | - | |
| | OSHA PEL 1989 | 200 | 260 | - | 250 | 325 | - | - | - | - | [1] |
| Xylene | US ACGIH | 100 | 434 | - | 150 | 651 | - | - | - | - | |
| | OSHA PEL | 100 | 435 | - | - | - | - | - | - | - | |
| | OSHA PEL 1989 | 100 | 435 | - | 150 | 655 | - | - | - | - | |
| Cumene | US ACGIH | 50 | - | - | - | - | - | - | - | - | |
| | OSHA PEL | 50 | 245 | - | - | - | - | - | - | - | [1] |
| | OSHA PEL 1989 | 50 | 245 | - | - | - | - | - | - | - | [1] |

[1]Absorbed through skin.

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: Nitrile or Neoprene gloves.

Skin protection : Wear long sleeves and chemical resistant apron to prevent repeated or prolonged skin contact.

Respiratory protection : Hydrogen sulfide accumulates in the headspace of containers of this product. During sealed transfer of this product under well-ventilated conditions, where inhalation exposure potential is minimal, respiratory protection is not expected to be necessary. However, if after a thorough hazard assessment respiratory protection is deemed necessary an appropriate supplied air respirator must be utilized.

Additional information

Prior to handling containers of this product, make sure to be wearing a hydrogen sulfide (H₂S) monitor that is in sound working condition.

Section 9. Physical and chemical properties

Appearance

| | |
|---|--|
| Physical state | : Liquid. |
| Color | : Amber. |
| Odor | : Mercaptan |
| Odor threshold | : Not available. |
| pH | : Not available. |
| Melting/freezing point | : Not available. |
| Boiling point | : Not available. |
| Initial Boiling Point | : Not available. |
| Flash point | : Closed cup: 38°C (100.4°F) [SFCC ASTM D 3828] |
| 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. |
| Vapor pressure | : 3.4 psig @ 54.44°C (130 F) (Reid) |
| Vapor density | : >1 [Air = 1] |
| Relative density | : 0.9 (16°C) |
| Density | : 7.5 (lbs/gal) |
| Solubility in water | : Dispersible |
| Partition coefficient: n-octanol/water | : Not available. |
| Auto-ignition temperature | : Not available. |
| Decomposition temperature | : Not available. |
| Viscosity | : Dynamic (16°C): 4.4 cP |
| VOC | : Not available. |
| Pour Point | : -40°C (-40°F) |

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, reducing materials and acids. |
| 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 1,2,4-Trimethylbenzene | LD50 Oral | Rat | 2900 mg/kg | - |
| | LC50 Inhalation Vapor | Rat | 18000 mg/m ³ | 4 hours |
| Phosphates | LD50 Oral | Rat | 5 g/kg | - |
| | LD50 Dermal | Rabbit | >8000 mg/kg | - |
| Quaternary ammonium chloride | LD50 Oral | Rat | 9200 mg/kg | - |
| | LD50 Dermal | Rat | 1664 mg/kg | - |
| 1,3,5-Trimethylbenzene | LD50 Oral | Rat | 295 mg/kg | - |
| | LC50 Inhalation Vapor | Rat | 24000 mg/m ³ | 4 hours |
| | LD50 Oral | Rat | 5000 mg/kg | - |
| Amine derivative | LD50 Dermal | Rabbit | >23500 mg/kg | - |
| | LD50 Oral | Rat | >19000 mg/kg | - |
| Methanol | LC50 Inhalation Gas. | Rat | 145000 ppm | 1 hours |
| | LC50 Inhalation Gas. | Rat | 64000 ppm | 4 hours |
| | LD50 Dermal | Rabbit | 15800 mg/kg | - |
| Xylene | LD50 Oral | Rat | 5600 mg/kg | - |
| | LC50 Inhalation Gas. | Rat | 5000 ppm | 4 hours |
| | LD50 Dermal | Rabbit | >1700 mg/kg | - |
| | LD50 Oral | Male rat | 3523 mg/kg | - |
| Cumene | LD50 Oral | Rat | 4300 mg/kg | - |
| | LC50 Inhalation Vapor | Mouse | 10000 mg/m ³ | 7 hours |
| | LC50 Inhalation Vapor | Rat | 39000 mg/m ³ | 4 hours |
| Fatty amine | LD50 Dermal | Rabbit | 10600 mg/kg | - |
| | LD50 Oral | Rat | 2.9 g/kg | - |
| | LD50 Dermal | Rat | 5600 mg/kg | - |
| | LD50 Oral | Rat | 1330 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. |

Reproductive toxicity

No applicable toxicity data

Teratogenicity

No applicable toxicity data

Specific target organ toxicity (single exposure)

Section 11. Toxicological information

| 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 |
| 1,3,5-Trimethylbenzene | Category 3 | Not applicable. | Respiratory tract irritation |
| 1,2,3-Trimethylbenzene | Category 3 | Not applicable. | Respiratory tract irritation |
| Methanol | Category 1 | Oral | optic nerve |
| Xylene | Category 3 | Not applicable. | Narcotic effects |
| Cumene | Category 3 | Not applicable. | Respiratory tract irritation |

Specific target organ toxicity (repeated exposure)

Not applicable.

Aspiration hazard

| Name | Result |
|------------------------|--------------------------------|
| Light aromatic naphtha | ASPIRATION HAZARD - Category 1 |
| 1,2,3-Trimethylbenzene | ASPIRATION HAZARD - Category 1 |
| Xylene | ASPIRATION HAZARD - Category 1 |
| Cumene | ASPIRATION HAZARD - Category 1 |

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 effects

General : No known significant effects or critical hazards.

Carcinogenicity : Suspected of causing 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 | 1792.4 mg/kg |
| Dermal | 7530.9 mg/kg |
| Inhalation (gases) | 267037.5 ppm |
| Inhalation (vapors) | 49.9 mg/l |

Section 12. Ecological information

Toxicity

| Product/ingredient name | Result | Species | Exposure |
|------------------------------|--|---|----------|
| 1,2,4-Trimethylbenzene | Acute LC50 4910 µg/l Marine water | Crustaceans - Elasmopus pecteniscrus | 48 hours |
| Phosphates | Acute LC50 22.4 mg/l Fresh water | Fish - Tilapia zillii | 96 hours |
| | Acute EC50 0.48 mg/l | Algae - Skeletonema | 72 hours |
| | Acute LC50 3.2 mg/l | Fish | 96 hours |
| Quaternary ammonium chloride | Acute LC50 0.145 ppm 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 |
| Methanol | Chronic NOEC 400 µg/l Fresh water | Daphnia - Daphnia magna | 21 days |
| | Acute EC50 16.912 mg/l Marine water | Algae - Ulva pertusa | 96 hours |
| | Acute EC50 10000000 µg/l Fresh water | Daphnia - Daphnia magna | 48 hours |
| | Acute LC50 2500000 µg/l Marine water | Crustaceans - Crangon crangon | 48 hours |
| | Acute LC50 100 mg/l Fresh water | Fish - Pimephales promelas | 96 hours |
| Xylene | Chronic NOEC 9.96 mg/l Marine water | Algae - Ulva pertusa | 96 hours |
| | 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 |

Persistence and degradability

| Product/ingredient name | Test | Result | Dose | Inoculum |
|-------------------------|------|----------------|------|----------|
| Phosphates | - | 28 % - 28 days | - | - |

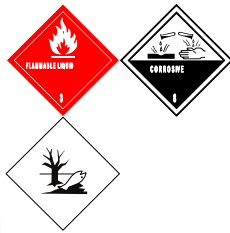
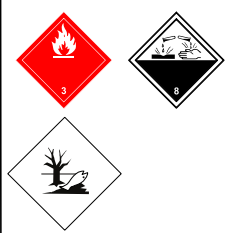
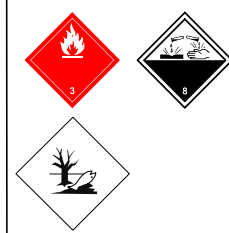
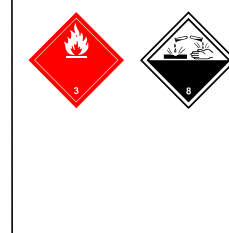
| Product/ingredient name | Aquatic half-life | Photolysis | Biodegradability |
|-------------------------|-------------------|------------|------------------|
| Phosphates | - | - | Inherent |

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: Methanol, Quaternary ammonium chloride) | FLAMMABLE LIQUID, CORROSIVE, N.O.S. (Contains: Methanol, Quaternary ammonium chloride) | FLAMMABLE LIQUID, CORROSIVE, N.O.S. (Contains: Methanol, Quaternary ammonium chloride) | FLAMMABLE LIQUID, CORROSIVE, N.O.S. (Contains: Methanol, Quaternary ammonium chloride) |
| Transport hazard class(es) | 3 (8)  | 3 (8)  | 3 (8)  | 3 (8)  |
| Packing group | III | III | III | III |
| Environmental hazards | Yes. | Yes. | Yes. | No. |
| Additional information | - | - | Emergency schedules (EmS) F-E S-C | - |

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 to Annex II of MARPOL 73/78 and the IBC Code : Not available.

DOT Reportable Quantity : Xylene, 712 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
Clean Water Act (CWA) 311: Xylene; Naphthalene; hydrogen sulphide

Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs) : Listed
SARA 302/304

Section 15. Regulatory information

| Name | % | EHS | SARA 302 TPQ | | SARA 304 RQ | |
|------------------|---------|------|--------------|-----------|-------------|-----------|
| | | | (lbs) | (gallons) | (lbs) | (gallons) |
| Hydrogen sulfide | 0 - 0.1 | Yes. | 500 | - | 100 | - |

SARA 311/312

Classification : Fire hazard
 Immediate (acute) health hazard
 Delayed (chronic) health hazard

SARA 313

| | Product name | CAS number | % |
|------------------------------|------------------------|------------|---------|
| Supplier notification | 1,2,4-Trimethylbenzene | 95-63-6 | 20 - 30 |
| | Methanol | 67-56-1 | 1 - 5 |
| | Xylene | 1330-20-7 | 1 - 5 |

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 : 3/9/2015.

Indicates information that has changed from previously issued version.

Notice to reader

NOTE: The information on this SDS is based on data which is considered to be accurate. Baker Hughes, however, makes no guarantees or warranty, either expressed or implied of the accuracy or completeness of this information.

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