HALLIBURTON

# SAFETY DATA SHEET

**according to Regulation (EC) No. 453/2010**

# CLAY-SAFE H

**Revision Date:** 02-Sep-2015 **Revision Number:** 9

## SECTION 1: Identification of the substance/mixture and of the company/undertaking

**1.1. Product Identifier**

**Product Name** CLAY-SAFE H
**Internal ID Code** HM000356

**1.2. Relevant identified uses of the substance or mixture and uses advised against**

**Recommended Use** Solvent

**1.3. Details of the supplier of the safety data sheet**

Halliburton Energy Services
Halliburton House, Howemoss Place
Kirkhill Industrial Estate
Dyce
Aberdeen, AB21 0GN
United Kingdom

www.halliburton.com

For further information, please contact
**E-Mail address:** fdunexchem@halliburton.com

**1.4. Emergency telephone number**

+44 8 08 189 0979 / 1-760-476-3961

| **Emergency telephone - §45 - (EC)1272/2008** | |
|---|---|
| **Europe** | **112** |
| **Croatia** | Centar za kontrolu otrovanja (CKO): (+385 1) 23-48-342 (Poison Control Center (PCC) - Institute for Medical Research and Occupational Health) |
| **Cyprus** | +210 7793777 |
| **Denmark** | Poison Control Hotline (DK): +45 82 12 12 12 |
| **France** | ORFILA (FR): + 01 45 42 59 59 |
| **Germany** | Poison Center Berlin (DE): +49 030 30686 790 |
| **Italy** | Poison Center, Milan (IT): +39 02 6610 1029 |
| **Netherlands** | National Poisons Information Center (NL): +31 30 274 88 88 (NB: this service is only available to health professionals) |
| **Norway** | Poisons Information (NO):+ 47 22 591300 |
| **Poland** | Poison Control and Information Centre, Warsaw (PL): +48 22 619 66 54; +48 22 619 08 97 |
| **Romania** | +40 21 318 36 06 |
| **Spain** | Poison Information Service (ES): +34 91 562 04 20 |
| **United Kingdom** | NHS Direct (UK): +44 0845 46 47 |

## SECTION 2: Hazards Identification

**2.1. Classification of the substance or mixture**

**REGULATION (EC) No 1272/2008**

| | |
|---|---|
| Skin Corrosion / irritation | Category 2 - H315 |
| Serious Eye Damage / Eye Irritation | Category 2 - H319 |
| Substances/mixtures corrosive to metal. | Category 1 - H290 |

**2.2. Label Elements**

**Hazard Pictograms**

**Signal Word** **Warning**

**Hazard Statements**
H290 - May be corrosive to metals
H315 - Causes skin irritation
H319 - Causes serious eye irritation

**Precautionary Statements - EU (§28, 1272/2008)**
P264 - Wash face, hands and any exposed skin thoroughly after handling
P280 - Wear protective gloves/protective clothing/eye protection/face protection
P302 + P352 - IF ON SKIN: Wash with plenty of soap and water
P332 + P313 - If skin irritation occurs: Get medical advice/attention
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P337 + P313 - If eye irritation persists: Get medical advice/attention

**Contains**

| **Substances** | **CAS Number** |
|---|---|
| Acetic acid | 64-19-7 |
| Hydrochloric acid | 7647-01-0 |

**2.3. Other Hazards**
This mixture contains no substance considered to be persistent, bioaccumulating nor toxic (PBT).
This mixture contains no substance considered to be very persistent nor very bioaccumulating (vPvB).

## SECTION 3: Composition/information on Ingredients

**3.2. Mixtures** Mixture

| Substances | EINECS | CAS Number | PERCENT (w/w) | EU - CLP Substance Classification | REACH No. |
|---|---|---|---|---|---|
| Acetic acid | 200-580-7 | 64-19-7 | 10 - 30% | Skin Corr. 1A (H314)<br>Eye Corr. 1 (H318)<br>STOT SE 3 (H335)<br>Flam. Liq. 3 (H226) | 01-2119475328-30 |
| Hydrochloric acid | 231-595-7 | 7647-01-0 | 5 - 10% | Skin Corr. 1B (H314)<br>Eye Corr. 1 (H318)<br>STOT SE 3 (H335)<br>Met. Corr. 1 (H290) | 01-2119484862-27 |

**For the full text of the H-phrases mentioned in this Section, see Section 16**

## SECTION 4: First aid measures

**4.1. Description of first aid measures**

**Inhalation** If inhaled, move victim to fresh air and seek medical attention.

**Eyes** In case of contact, or suspected contact, immediately flush eyes with plenty of water for at least 15 minutes and get medical attention immediately after flushing.

**Skin** In case of contact, immediately flush skin with plenty of soap and water for at least 15 minutes. Get medical attention. Remove contaminated clothing and launder before reuse.

**Ingestion** Do NOT induce vomiting. Give nothing by mouth. Obtain immediate medical

attention.

**4.2. Most Important symptoms and effects, both acute and delayed**
Causes eye irritation. Causes skin irritation.

**4.3. Indication of any immediate medical attention and special treatment needed**
**Notes to Physician** Treat symptomatically

## SECTION 5: Firefighting Measures

**5.1. Extinguishing media**
**Suitable Extinguishing Media**
Water fog, carbon dioxide, foam, dry chemical.
**Extinguishing media which must not be used for safety reasons**
None known.

**5.2. Special hazards arising from the substance or mixture**
**Special Exposure Hazards**
May form explosive mixtures with strong alkalis. Decomposition in fire may produce harmful gases. Reaction with steel and certain other metals generates flammable hydrogen gas.

**5.3. Advice for firefighters**
**Special Protective Equipment for Fire-Fighters**
Full protective clothing and approved self-contained breathing apparatus required for fire fighting personnel.

## SECTION 6: Accidental release measures

**6.1. Personal precautions, protective equipment and emergency procedures**
Use appropriate protective equipment. Avoid contact with skin, eyes and clothing. Avoid breathing vapors. Ensure adequate ventilation.
See Section 8 for additional information

**6.2. Environmental precautions**
Prevent from entering sewers, waterways, or low areas.

**6.3. Methods and material for containment and cleaning up**
Isolate spill and stop leak where safe. Contain spill with sand or other inert materials. Neutralize to pH of 6-8. Scoop up and remove.

**6.4. Reference to other sections**
See Section 8 and 13 for additional information.

## SECTION 7: Handling and Storage

**7.1. Precautions for Safe Handling**
Use appropriate protective equipment. Avoid contact with eyes, skin, or clothing. Wash hands after use. Launder contaminated clothing before reuse. Avoid breathing vapors. Ensure adequate ventilation.
**Hygiene Measures**
Handle in accordance with good industrial hygiene and safety practice.

**7.2. Conditions for safe storage, including any incompatibilities**
Store away from alkalis. Store away from oxidizers. Store in a cool well ventilated area. Keep container closed when not in use.

**7.3. Specific End Use(s)**
**Exposure Scenario** No information available
**Other Guidelines** No information available

## SECTION 8: Exposure Controls/Personal Protection

**8.1. Control parameters**
**Exposure Limits**

| Substances | CAS Number | EU | UK | Netherlands | France |
|---|---|---|---|---|---|
| Acetic acid | 64-19-7 | 10 ppm | Not applicable | Not applicable | 10 ppm |
| Hydrochloric acid | 7647-01-0 | Not applicable | TWA: 1 ppm<br>TWA: 2 mg/m³ | TWA: 8 mg/m³<br>STEL: 15 mg/m³ | STEL: 5 ppm<br>STEL: 7.6 mg/m³ |

| | | | | | |
|---|---|---|---|---|---|
| | | | STEL: 5 ppm<br>STEL: 8 mg/m³ | | |

| Substances | CAS Number | Germany | Spain | Portugal | Finland |
|---|---|---|---|---|---|
| Acetic acid | 64-19-7 | TWA: 10 ppm<br>TWA: 25 mg/m³ | TWA: 10 ppm<br>TWA: 25 mg/m³<br>15 ppm STEL<br>[VLA-EC]; 37 mg/m³<br>STEL [VLA-EC] | TWA: 10 ppm<br>TWA: 25 mg/m³<br>STEL: 15 ppm | TWA: 5 ppm<br>TWA: 13 mg/m³<br>STEL: 10 ppm<br>STEL: 25 mg/m³ |
| Hydrochloric acid | 7647-01-0 | TWA: 2 ppm<br>TWA: 3 mg/m³<br><br>TWA: 3.0 mg/m³ | TWA: 5 ppm<br>TWA: 7.6 mg/m³<br>10 ppm STEL<br>[VLA-EC]; 15 mg/m³<br>STEL [VLA-EC] | TWA: 5 ppm<br>TWA: 8 mg/m³<br>STEL: 10 ppm<br>STEL: 15 mg/m³ | STEL: 5 ppm<br>STEL: 7.6 mg/m³ |

| Substances | CAS Number | Austria | Ireland | Switzerland | Norway |
|---|---|---|---|---|---|
| Acetic acid | 64-19-7 | TWA: 10 ppm<br>TWA: 25 mg/m³<br>STEL" 20 ppm<br>STEL" 50 mg/m³ | 10 ppm TWA; 25 mg/m³ TWA<br>15 ppm STEL; 37 mg/m³ STEL | TWA: 10 ppm<br>TWA: 25 mg/m³<br>STEL: 20 ppm<br>STEL: 50 mg/m³ | TWA: 10 ppm<br>TWA: 25 mg/m³<br>STEL: 20 ppm<br>STEL: 37.5 mg/m³ |
| Hydrochloric acid | 7647-01-0 | TWA: 5 ppm<br>TWA: 8 mg/m³<br>STEL" 10 ppm<br>STEL" 15 mg/m³ | 5 ppm TWA; 8 mg/m³ TWA<br>10 ppm STEL (as F); 15 mg/m³ STEL | TWA: 2 ppm<br>TWA: 3.0 mg/m³<br>STEL: 4 ppm<br>STEL: 6 mg/m³ | Not applicable |

| Substances | CAS Number | Italy | Poland | Hungary | Czech Republic |
|---|---|---|---|---|---|
| Acetic acid | 64-19-7 | 10 ppm | TWA: 15 mg/m³<br>STEL: 30 mg/m³ | TWA: 25 mg/m³<br>STEL: 25 mg/m³ | TWA: 25 mg/m³ |
| Hydrochloric acid | 7647-01-0 | TWA: 5 ppm<br>TWA: 8 mg/m³<br>STEL: 10 ppm<br>STEL: 15 mg/m³ | TWA: 5 mg/m³<br>STEL: 10 mg/m³ | TWA: 8 mg/m³<br>STEL: 16 mg/m³ | TWA: 8 mg/m³ |

| Substances | CAS Number | Denmark | Romania | Croatia | Cyprus |
|---|---|---|---|---|---|
| Acetic acid | 64-19-7 | TWA: 10 ppm<br>TWA: 25 mg/m³ | TWA: 10 ppm<br>TWA: 25 mg/m³ | TWA: 10 ppm<br>TWA: 25 mg/m³ | TWA: 10 ppm<br>TWA: 25 mg/m³ |
| Hydrochloric acid | 7647-01-0 | Not applicable | TWA: 5 ppm<br>TWA: 8 mg/m³<br>STEL: 10 ppm<br>STEL: 15 mg/m³ | TWA: 5 ppm<br>TWA: 8 mg/m³<br>STEL: 10 ppm<br>STEL: 15 mg/m³ | TWA: 5 ppm<br>TWA: 8 mg/m³<br>STEL: 10 ppm<br>STEL: 15 mg/m³ |

**Derived No Effect Level (DNEL)** No information available.

**Worker**

| Substances | Long-term exposure - systemic effects, Inhalation | Acute / short term exposure - systemic effects, Inhalation | Long-term exposure - local effects, Inhalation | Acute / short term exposure - local effects, Inhalation | Long-term exposure - systemic effects, Dermal | Acute / short term exposure - systemic effects, Dermal | Long-term exposure - local effects, Dermal | Acute / short term exposure - local effects, Dermal | Hazards for the eyes - local effects |
|---|---|---|---|---|---|---|---|---|---|
| Acetic acid | Not available | Not available | 25 mg/m³ | 25 mg/m³ | Not available | Not available | Not available | Not available | Not available |
| Hydrochloric acid | Not available | Not available | 8 mg/m³ | 15 mg/m³ | Not available | Not available | Not available | Not available | Not available |

**General Population**

| Substances | Long-term exposure - systemic effects, Inhalation | Acute / short term exposure - systemic effects, Inhalation | Long-term exposure - local effects, Inhalation | Acute / short term exposure - local effects, Inhalation | Long-term exposure - systemic effects, Dermal | Acute / short term exposure - systemic effects, Dermal | Long-term exposure - local effects, Dermal | Acute / short term exposure - local effects, Dermal | Long-term exposure - systemic effects, Oral | Acute / short term exposure - local effects, Oral | Hazards for the eyes - local effects |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acetic acid | Not available | Not available | 25 mg/m³ | 25 mg/m³ | Not available | Not available | Not available | Not available | Not available | Not available | Not available |

**Predicted No Effect Concentration (PNEC)** No information available.

| Substances | Freshwater | Marine water | Intermittent release | Sewage treatment plant | Sediment (freshwater) | Sediment (marine water) | Air | Soil | Secondary poisoning |
|---|---|---|---|---|---|---|---|---|---|
| Acetic acid | 3.06 mg/l | 0.306 mg/l | 30.58 mg/l | 85 mg/l | 11.4 mg/kg | 1.14 mg/kg | Not available | 0.478 mg/kg | Not available |
| Hydrochloric acid | 36 ug/L | 36 ug/L | 45 ug/L | 36 ug/L | Not available | Not available | Not available | Not available | Not available |

**8.2. Exposure controls**

**Engineering Controls** Use in a well ventilated area. Local exhaust ventilation should be used in areas without

good cross ventilation.

### Personal protective equipment

If engineering controls and work practices cannot prevent excessive exposures, the selection and proper use of personal protective equipment should be determined by an industrial hygienist or other qualified professional based on the specific application of this product.

| | |
|---|---|
| **Respiratory Protection** | Organic vapor/acid gas respirator with a dust/mist filter. |
| **Hand Protection** | Impervious rubber gloves. |
| **Skin Protection** | Full protective chemical resistant clothing. |
| **Eye Protection** | Chemical goggles; also wear a face shield if splashing hazard exists. |
| **Other Precautions** | Eyewash fountains and safety showers must be easily accessible. |

**Environmental Exposure Controls** Do not allow material to contaminate ground water system

## SECTION 9: Physical and Chemical Properties

**9.1. Information on basic physical and chemical properties**

**Physical State:** Liquid
**Color:** Clear colorless
**Odor:** Acrid
**Odor Threshold:** No information available

| Property<br>Remarks/ - Method | Values |
|---|---|
| **pH:** | 0.5 |
| **Freezing Point/Range** | -10 °C |
| **Melting Point/Range** | No data available |
| **Boiling Point/Range** | No data available |
| **Flash Point** | No data available PMCC |
| **Flammability (solid, gas)** | No data available |
| **upper flammability limit** | No data available |
| **lower flammability limit** | No data available |
| **Evaporation rate** | No data available |
| **Vapor Pressure** | No data available |
| **Vapor Density** | No data available |
| **Specific Gravity** | 1.06 |
| **Water Solubility** | Miscible with water |
| **Solubility in other solvents** | No data available |
| **Partition coefficient: n-octanol/water** | No data available |
| **Autoignition Temperature** | No data available |
| **Decomposition Temperature** | No data available |
| **Viscosity** | No data available |
| **Explosive Properties** | No information available |
| **Oxidizing Properties** | No information available |

**9.2. Other information**

**VOC Content (%)** No data available

## SECTION 10: Stability and Reactivity

**10.1. Reactivity**

Not expected to be reactive.

**10.2. Chemical Stability**

Stable

**10.3. Possibility of Hazardous Reactions**

Will Not Occur

**10.4. Conditions to Avoid**

None anticipated

**10.5. Incompatible Materials**

Strong alkalis. Strong oxidizers. Contact with metals.

**10.6. Hazardous Decomposition Products**

Flammable hydrogen gas. Chlorine. Hydrogen sulfide. Carbon monoxide and carbon dioxide.

## SECTION 11: Toxicological Information

**11.1. Information on Toxicological Effects**

**Acute Toxicity**

| | |
|---|---|
| **Inhalation** | May cause respiratory irritation. |
| **Eye Contact** | Causes severe eye irritation. |

**Skin Contact** Causes severe skin irritation.
**Ingestion** Irritation of the mouth, throat, and stomach.

**Chronic Effects/Carcinogenicity** Prolonged, excessive exposure may cause erosion of the teeth.

## Toxicology data for the components

| Substances | CAS Number | LD50 Oral | LD50 Dermal | LC50 Inhalation |
|---|---|---|---|---|
| Acetic acid | 64-19-7 | 3310 mg/kg (Rat)<br>600 mg/kg (Rabbit)<br>4960 mg/kg (Mouse) | 1060 mg/kg (Rabbit) | 11.4 mg/L (Rat) 4h |
| Hydrochloric acid | 7647-01-0 | No data available | 5010 mg/kg (Rabbit)<br>> 5010 mg/kg (Rabbit)<br>1449 mg/kg (Mouse) | 3124 mg/L (Rat) 1h<br>3.2 mg/L (Mouse)<br>8.3 mg/L (Rat)<br>1405 mg/L (Rat)<br>554 mg/L (Mouse) |

| Substances | CAS Number | Skin corrosion/irritation |
|---|---|---|
| Acetic acid | 64-19-7 | Corrosive to skin |
| Hydrochloric acid | 7647-01-0 | Causes severe burns |

| Substances | CAS Number | Eye damage/irritation |
|---|---|---|
| Acetic acid | 64-19-7 | Corrosive to eyes |
| Hydrochloric acid | 7647-01-0 | Causes severe burns |

| Substances | CAS Number | Skin Sensitization |
|---|---|---|
| Acetic acid | 64-19-7 | Not regarded as a sensitizer. |
| Hydrochloric acid | 7647-01-0 | Did not cause sensitization on laboratory animals (guinea pig) |

| Substances | CAS Number | Respiratory Sensitization |
|---|---|---|
| Acetic acid | 64-19-7 | No information available |
| Hydrochloric acid | 7647-01-0 | No information available |

| Substances | CAS Number | Mutagenic Effects |
|---|---|---|
| Acetic acid | 64-19-7 | In vivo tests did not show mutagenic effects. In vitro tests did not show mutagenic effects |
| Hydrochloric acid | 7647-01-0 | Not regarded as mutagenic. |

| Substances | CAS Number | Carcinogenic Effects |
|---|---|---|
| Acetic acid | 64-19-7 | Did not show carcinogenic effects in animal experiments |
| Hydrochloric acid | 7647-01-0 | No data of sufficient quality are available. |

| Substances | CAS Number | Reproductive toxicity |
|---|---|---|
| Acetic acid | 64-19-7 | Did not show teratogenic effects in animal experiments. Animal testing did not show any effects on fertility. |
| Hydrochloric acid | 7647-01-0 | Embryo and fetotoxicity has been observed in female rats exposed to maternally toxic levels of hydrogen chloride (450 mg/m$^3$, 1hr.). |

| Substances | CAS Number | STOT - single exposure |
|---|---|---|
| Acetic acid | 64-19-7 | May cause respiratory irritation. |
| Hydrochloric acid | 7647-01-0 | May cause respiratory irritation. |

| Substances | CAS Number | STOT - repeated exposure |
|---|---|---|
| Acetic acid | 64-19-7 | Not applicable due to corrosivity of the substance. |
| Hydrochloric acid | 7647-01-0 | No significant toxicity observed in animal studies at concentration requiring classification. |

| Substances | CAS Number | Aspiration hazard |
|---|---|---|
| Acetic acid | 64-19-7 | Not applicable |
| Hydrochloric acid | 7647-01-0 | Not applicable |

## SECTION 12: Ecological Information

### 12.1. Toxicity

**Ecotoxicity Effects**

| Substances | CAS Number | Toxicity to Algae | Toxicity to Fish | Toxicity to Microorganisms | Toxicity to Invertebrates |
|---|---|---|---|---|---|
| Acetic acid | 64-19-7 | EC50 90 mg/L (Microcystis aeruginosa) EC50 (72h) > 1000 mg/L (>300.82 mg/L – acetate ion) (Skeletonema costatum) | LC50 79 mg/L (Pimephales promelas) LC50 75 mg/L (Pimephales promelas) LC50 (96h) > 1000 mg/L (>300.82 mg/L – acetate ion) (Oncorhynchus mykiss) | NOEC (16h) 1150 mg/L (Pseudomonas putida) | EC50 47 mg/L (Daphnia magna) LC50 32 mg/L (Artemia salina) EC50 (48h) > 1000 mg/L (>300.82 mg/L – acetate ion) (Daphnia magna) NOEC (21d) 31.4 - 37.9 mg/L (Daphnia magna) (reproduction) |
| Hydrochloric acid | 7647-01-0 | No information available | LC50 282 mg/L (Gambusia affinis) LC50 20.5 mg/L (Lepomis macrochirus) LC50 (96h) 3.25 – 3.5 (pH) (Lepomis macrochirus) | EC50 (3h) >= 5 and <= 5.5 (pH) (Activated sludge, domestic) | EC50 (48h) 4.9 (pH) (Daphnia magna) |

### 12.2. Persistence and degradability

| Substances | CAS Number | Persistence and Degradability |
|---|---|---|
| Acetic acid | 64-19-7 | Readily biodegradable (99% @ 7d) |
| Hydrochloric acid | 7647-01-0 | The methods for determining biodegradability are not applicable to inorganic substances. |

### 12.3. Bioaccumulative potential

| Substances | CAS Number | Log Pow |
|---|---|---|
| Acetic acid | 64-19-7 | -0.17 BCF = 3.16 (Calculated) |
| Hydrochloric acid | 7647-01-0 | 0.25 |

### 12.4. Mobility in soil

| Substances | CAS Number | Mobility |
|---|---|---|
| Acetic acid | 64-19-7 | No information available |
| Hydrochloric acid | 7647-01-0 | No information available |

### 12.5. Results of PBT and vPvB assessment

This mixture contains no substance considered to be persistent, bioaccumulating nor toxic (PBT). This mixture contains no substance considered to be very persistent nor very bioaccumulating (vPvB).

| Substances | PBT and vPvB assessment |
|---|---|
| Acetic acid | Not PBT/vPvB |
| Hydrochloric acid | Not PBT/vPvB |

### 12.6. Other adverse effects

**Endocrine Disruptor Information**

This product does not contain any known or suspected endocrine disruptors

## SECTION 13: Disposal Considerations

### 13.1. Waste treatment methods

**Disposal Method** Disposal should be made in accordance with federal, state, and local regulations.

**Contaminated Packaging** Follow all applicable national or local regulations.

## SECTION 14: Transport Information

**IMDG/IMO**

| | |
|---|---|
| **UN Number:** | UN3264 |
| **UN Proper Shipping Name:** | Corrosive Liquid, Acidic, Inorganic, N.O.S. (Contains Hydrochloric Acid, Acetic Acid) |
| **Transport Hazard Class(es):** | 8 |
| **Packing Group:** | III |
| **Environmental Hazards:** | Not applicable |

**RID**

| | |
|---|---|
| **UN Number:** | UN3264 |
| **UN Proper Shipping Name:** | Corrosive Liquid, Acidic, Inorganic, N.O.S. (Contains Hydrochloric Acid, Acetic Acid) |
| **Transport Hazard Class(es):** | 8 |
| **Packing Group:** | III |
| **Environmental Hazards:** | Not applicable |

**ADR**

| | |
|---|---|
| **UN Number:** | UN3264 |
| **UN Proper Shipping Name:** | Corrosive Liquid, Acidic, Inorganic, N.O.S. (Contains Hydrochloric Acid, Acetic Acid) |
| **Transport Hazard Class(es):** | 8 |
| **Packing Group:** | III |
| **Environmental Hazards:** | Not applicable |

**IATA/ICAO**

| | |
|---|---|
| **UN Number:** | UN3264 |
| **UN Proper Shipping Name:** | Corrosive Liquid, Acidic, Inorganic, N.O.S. (Contains Hydrochloric Acid, Acetic Acid) |
| **Transport Hazard Class(es):** | 8 |
| **Packing Group:** | III |
| **Environmental Hazards:** | Not applicable |

**14.1. UN Number:** UN3264

**14.2. UN Proper Shipping Name:** Corrosive Liquid, Acidic, Inorganic, N.O.S. (Contains Hydrochloric Acid, Acetic Acid)

**14.3. Transport Hazard Class(es):** 8

**14.4. Packing Group:** III

**14.5. Environmental Hazards:** Not applicable

**14.6. Special Precautions for User:** None

**14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code:** Not applicable

## SECTION 15: Regulatory Information

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

**International Inventories**

| | |
|---|---|
| **EINECS Inventory** | This product, and all its components, complies with EINECS |
| **US TSCA Inventory** | All components listed on inventory or are exempt. |
| **Canadian DSL Inventory** | All components listed on inventory or are exempt. |

**Legend**
**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory
**EINECS/ELINCS** - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances
**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List

**Germany, Water Endangering Classes (WGK)** WGK 1: Low hazard to waters.

**15.2. Chemical Safety Assessment**
No information available

## SECTION 16: Other Information

**Full text of H-Statements referred to under sections 2 and 3**
H226 - Flammable liquid and vapor
H290 - May be corrosive to metals
H314 - Causes severe skin burns and eye damage

H315 - Causes skin irritation
H318 - Causes serious eye damage
H319 - Causes serious eye irritation
H335 - May cause respiratory irritation

**Key or legend to abbreviations and acronyms**
bw – body weight
CAS – Chemical Abstracts Service
CLP – REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on Classification, Labelling and Packaging of substances and mixtures
EC – European Commission
EC10 – Effective Concentration 10%
EC50 – Effective Concentration 50%
EEC – European Economic Community
ErC50 – Effective Concentration growth rate 50%
IBC Code – International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk
LC50 – Lethal Concentration 50%
LD50 – Lethal Dose 50%
LL0 – Lethal Loading 0%
LL50 – Lethal Loading 50%
MARPOL – International Convention for the Prevention of Pollution from Ships
mg/kg – milligram/kilogram
mg/L – milligram/liter
NIOSH – National Institute for Occupational Safety and Health
NOEC – No Observed Effect Concentration
NTP – National Toxicology Program
OEL – Occupational Exposure Limit
PBT – Persistent Bioaccumulative and Toxic
PC – Chemical Product category
PEL – Permissible Exposure Limit
ppm – parts per million
PROC – Process category
REACH – REGULATION (EC) No 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals
STEL – Short Term Exposure Limit
SU – Sector of Use category

**Key literature references and sources for data**
www.ChemADVISOR.com/

**Revision Date:** 02-Sep-2015
**Revision Note**
SDS sections updated: 1 2 3 4 6 7 8 10 11 12 14 16

**This safety data sheet complies with the requirements of Regulation (EC) No. 453/2010**

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**End of Safety Data Sheet**