Trade name: Dairyland Brand Chlorinated Pipeline Detergent

1 Identification of the substance/mixture and of the company/undertaking

• 1.1 Product identifier
  • Trade name: Dairyland Brand Chlorinated Pipeline Detergent
  • Article number: UM10

• 1.2 Relevant identified uses of the substance or mixture and uses advised against
  No further relevant information available.

• Application of the substance / the preparation
  Non-foaming alkaline cleaner for dairy pipelines and other CIP applications.

• 1.3 Details of the supplier of the Safety Data Sheet
  Stearns Packaging Corporation
  4200 Sycamore Avenue (53714)
  PO Box 3216
  Madison, WI 53704-0216
  Phone: 800-655-5008
  Email: stearns@stearnspkg.com
  Website: www.stearnspkg.com

• 1.4 Emergency telephone number:
  ChemTel Inc.
  (800)255-3924, +1 (813)248-0585

2 Hazards identification

• 2.1 Classification of the substance or mixture
  • Classification according to Regulation (EC) No 1272/2008
    ❗ GHS05 corrosion
    Skin Corr. 1B  H314 Causes severe skin burns and eye damage.
    Eye Dam. 1    H318 Causes serious eye damage.

   ❗ GHS07
    Acute Tox, Oral, 4  H302 Harmful if swallowed.

• Classification according to Directive 67/548/EEC or Directive 1999/45/EC
  ❏ C; Corrosive.
  ❌ Xi; Irritant
  ❌ Xn; Irritant
  R34: Causes burns  R37: Irritating to respiratory system  R22: Harmful if swallowed

• Information concerning particular hazards for human and environment:
  The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

• Classification system:
  The classification is according to the latest editions of the EU-lists, and extended by company and literature data.
  The classification is in accordance with the latest editions of international substances lists, and is supplemented by information from technical literature and by information provided by the company.

(Contd. on page 2)
2.2 Label elements

Labeling according to Regulation (EC) No 1272/2008

The product is classified and labeled according to the CLP regulation.

- Hazard pictograms
  - GHS05
  - GHS07

- Signal word
  - Danger

- Hazard-determining components of labelling:
  - Potassium Hydroxide and Sodium Hypochlorite

- Hazard statements
  - H302 Harmful if swallowed
  - H314+H318 Causes severe burns and serious eye damage.

- Precautionary statements
  - P270 Do not eat, drink or smoke when using this product
  - P280 Wear protective gloves / protective clothing / eye protection.
  - P260 Do not breathe mist or vapor.
  - P264 Wash hands thoroughly after handling
  - P303+P361+P353+ IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Immediately call a poison center / doctor. Wash contaminated clothing before reuse.
  - P310 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 / doctor.
  - P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
  - P310 Immediately call a POISON CENTER / doctor.
  - P304+P340+P310 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a poison center / doctor.
  - P405 Store locked up.
  - P501 Dispose of contents/container in accordance with local regulations.

3 Composition/information on ingredients

- 3.2 Mixtures

Description: Mixture of substances listed below with nonhazardous additions.

<table>
<thead>
<tr>
<th>CAS:</th>
<th>Ingredient</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1310-58-3</td>
<td>Potassium hydroxide (K(OH))</td>
<td>10-15%</td>
</tr>
<tr>
<td>7681-52-9</td>
<td>Sodium hypochlorite</td>
<td>2-3%</td>
</tr>
<tr>
<td>7320-34-5</td>
<td>Tetrapotassium pyrophosphate</td>
<td>5-10%</td>
</tr>
<tr>
<td>1344-09-8</td>
<td>Sodium Silicate</td>
<td>2-3%</td>
</tr>
<tr>
<td>9003-04-07</td>
<td>Poly (acrylic acid, sodium salt) solution</td>
<td>1-3%</td>
</tr>
</tbody>
</table>

Additional information: For the wording of the listed risk phrases refer to section 16.
4 First-aid measures

• 4.1 Description of first aid measures
• General information: Immediately remove any clothing soiled by the product.
• After inhalation:
  Remove person to fresh air and keep comfortable for breathing. Immediately call a poison center or physician.
• After skin contact:
  Immediately take off contaminated clothing.
  Rinse skin with water/shower.
  If skin irritation continues, consult a doctor.
  Seek immediate medical help for blistering or open wounds.
• After eye contact:
  Remove contact lenses if worn.
  Rinse opened eye with plenty of water for at least 15 minutes. Then consult a doctor.
• After swallowing:
  Rinse out mouth and then drink plenty of water.
  Do not induce vomiting; call for medical help immediately.
  If vomiting occurs, keep head low so that stomach content does not get into the lungs.
• 4.2 Most important symptoms and effects, both acute and delayed
  Caustic effect on skin and mucous membranes.
  Breathing difficulty
  Headache
  Dizziness
  Cramp
  Gastric or intestinal disorders.
  Coughing
  Nausea
• Hazards
  Danger of gastric perforation.
  Danger of severe eye injury.
  Danger of impaired breathing.
  Danger of disturbed cardiac rhythm.
• 4.3 Indication of any immediate medical attention and special treatment needed
  Medical supervision for at least 48 hours.
  If necessary oxygen respiration treatment.
  Later observation for pneumonia and pulmonary edema.

5 Fire-fighting measures

• 5.1 Extinguishing media
• Suitable extinguishing agents: Use fire extinguishing methods suitable to surrounding conditions.
• For safety reasons unsuitable extinguishing agents: None.
• 5.2 Special hazards arising from the substance or mixture
  Formation of chlorine and other toxic gases is possible during heating or in case of fire.
• 5.3 Advice for firefighters
• Protective equipment:
  Wear self-contained respiratory protective device.
  Wear fully protective suit.
• Additional information No further relevant information available.
6 Accidental release measures

• 6.1 Personal precautions, protective equipment and emergency procedures
  Use respiratory protective device against the effects of fumes/dust/aerosol.
  Wear protective equipment. Keep unprotected persons away.
  Ensure adequate ventilation
• 6.2 Environmental precautions: No special measures required.
• 6.3 Methods and material for containment and cleaning up:
  Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
  Send for recovery or disposal in suitable receptacles.
  Dispose contaminated material as waste according to item 13.
  Clean the affected area carefully; suitable cleaners are:
    Warm water.
• 6.4 Reference to other sections
  See Section 7 for information on safe handling.
  See Section 8 for information on personal protection equipment.
  See Section 13 for disposal information.

7 Handling and storage

• 7.1 Precautions for safe handling
  Use only in well ventilated areas.
  Prevent formation of aerosols.
  Avoid splashes or spray in enclosed areas.
• Information about fire - and explosion protection: No special measures required.
• 7.2 Conditions for safe storage, including any incompatibilities
• Storage:
  Requirements to be met by storerooms and receptacles:
    Avoid storage near extreme heat, ignition sources or open flame.
  Information about storage in one common storage facility:
    Store away from foodstuffs.
    Store away from oxidizing agents.
    Do not store together with acids.
• Further information about storage conditions:
    Keep out of reach of children.
    Store in cool, dry conditions in well sealed receptacles.
    Protect from freezing.
• 7.3 Specific end use(s) No further relevant information available.

8 Exposure controls/personal protection

• Additional information about design of technical facilities: No further data; see item 7.
• 8.1 Control parameters
Trade name: Dairyland Brand Chlorinated Pipeline Detergent

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Exposure Limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>sodium hypochlorite</td>
<td>0.5 ppm, 8 hour, TWA as chlorine</td>
</tr>
<tr>
<td></td>
<td>1.0 ppm, 15 minute, STEL as chlorine (ACGIH)</td>
</tr>
<tr>
<td></td>
<td>1.0 ppm, ceiling limit as chlorine (OSHA)</td>
</tr>
<tr>
<td>potassium hydroxide</td>
<td>2 mg/m³, PEL (OSHA)</td>
</tr>
<tr>
<td></td>
<td>2 mg/m³, TLV (ACGIH)</td>
</tr>
</tbody>
</table>

- **Ingredients with limit values that require monitoring at the workplace:**

- **DNELs** No further relevant information available.
- **PNECs** No further relevant information available.
- **Additional information:** The lists valid during the making were used as basis.

- **8.2 Exposure controls**

- **Personal protective equipment:**
  - **General protective and hygienic measures:**
    The usual precautionary measures are to be adhered to when handling chemicals.
    Keep away from foodstuffs, beverages and feed.
    Immediately remove all soiled and contaminated clothing.
    Wash hands before breaks and at the end of work.
    Avoid contact with the eyes and skin.
    Do not inhale gases / fumes / aerosols.
    Clean skin thoroughly immediately after handling the product.

- **Respiratory protection:**
  General room ventilation is typically adequate.
  Not required under normal conditions of use.
  Use suitable respiratory protective device when aerosol or mist is formed.
  For spills, respiratory protection may be advisable.

- **Protection of hands:**
  - **Protective gloves**
    The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
    Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation.

- **Material of gloves**
  The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

- **Penetration time of glove material**
  The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

- **Eye protection:**
  Contact lenses should not be worn.

- **Body protection:** Alkaline resistant protective clothing

- **Limitation and supervision of exposure into the environment**
  No further relevant information available.

- **Risk management measures**
  See Section 7 for additional information.
  No further relevant information available.

(Contd. from page 4)
### 9 Physical and chemical properties

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

**General Information**

- **Appearance:**
  - Form: Liquid
  - Color: Pale yellow
  - Odor: Chlorine beach
  - Odor threshold: Not determined.

- **pH-value at 20 °C:** 14.0 for concentrate

- **Change in condition**
  - Melting point/Melting range: Undetermined.
  - Boiling point/Boiling range: Undetermined.

- **Flash point:** Not applicable.

- **Flammability (solid, gaseous):** Not applicable.

- **Ignition temperature:** Not determined.

- **Decomposition temperature:** Not determined.

- **Self-igniting:** Product is not self-igniting.

- **Danger of explosion:** Product does not present an explosion hazard.

- **Explosion limits:**
  - Lower: Not determined.
  - Upper: Not determined.

- **Vapor pressure at 20 °C:** 23 hPa

- **Density at 20 °C:** 1.244 g/cm³

- **Relative density**
  - Not determined.

- **Vapor density**
  - Not determined.

- **Evaporation rate**
  - Not determined.

- **Solubility in / Miscibility with water:** Fully miscible.

- **Partition coefficient (n-octanol/water):** Not determined.

- **Viscosity:**
  - Dynamic: Not determined.
  - Kinematic: Not determined.

**9.2 Other information**

No further relevant information available.

### 10 Stability and reactivity

**10.1 Reactivity** Not determined.

**10.2 Chemical stability**

**Thermal decomposition / conditions to be avoided:**

No decomposition if used and stored according to specifications.
Safety Data Sheet
according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and
GHS HCS 2012

Trade name: Dairyland Brand Chlorinated Pipeline Detergent

10.3 Possibility of hazardous reactions
Reacts with strong oxidizing agents.
Toxic fumes may be released if heated above the decomposition point.
Reacts with strong acids.
Reacts with aluminum, brass, bronze, copper, lead, tin, zinc, or other alkali-sensitive metals or alloys.

10.4 Conditions to avoid
Store away from oxidizing agents.
Do not mix with strong acids.
Keep away from heat and direct sunlight.

10.5 Incompatible materials: No further relevant information available.

10.6 Hazardous decomposition products:
Carbon monoxide and carbon dioxide
Nitrogen oxides (NOx)
Oxides of potassium and phosphorous
Chlorine gas will be liberated if material is mixed with acids.

11 Toxicological information

11.1 Information on toxicological effects
Acute toxicity: No LC/LD50 data on mixture.

1310-58-3 Potassium hydroxide
Oral LD50 214 mg/kg (rat)

Primary irritant effect: CORROSIVE.
on the eye: Strong caustic effect.
on the skin: Caustic effect on skin and mucous membranes.
Ingestion: Causes burns and serious damage to mouth, throat, and stomach.
Inhalation: May cause corrosive effects to nose, throat, and respiratory system.
Sensitization: No sensitizing effects known.

Additional toxicological information:
Contains no reportable ACGIH, IARC, NTP, or OSHA carcinogens.

12 Ecological information

12.1 Toxicity
Aquatic toxicity: No further relevant information available.
12.2 Persistence and degradability biodegradable
12.3 Bioaccumulative potential No further relevant information available.
12.4 Mobility in soil No further relevant information available.
Ecotoxic effects:
Remark: After neutralization a reduction of the harming action may be recognized

Additional ecological information:
General notes:
Must not reach sewage water or drainage ditch undiluted or unneutralized.
Rinse off of bigger amounts into drains or the aquatic environment may lead to increased pH-values. A high pH-value harms aquatic organisms. In the dilution of the use-level the pH-value is considerably reduced, so that after the use of the product the aqueous waste, emptied into drains, is only low water-dangerous.
Due to available data on eliminability/decomposition and bioaccumulation potential a prolonged damage of the environment is unlikely. This statement was deduced from the properties of the single components. Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water. Water Hazard Class (Self-classification) in the concentrate.

12.5 Results of PBT and vPvB assessment
- PBT: Not applicable.
- vPvB: Not applicable.

12.6 Other adverse effects
No further relevant information available.

13 Disposal considerations
- 13.1 Waste treatment methods
- Recommendation
  Small amounts may be diluted with plenty of water and washed away. Dispose of bigger amounts in accordance with Local Authority requirements.

- Uncleaned packaging:
- Recommendation: Disposal must be made according to official regulations.
- Recommended cleansing agents: Water, if necessary.

14 Transport information
- 14.1 UN-Number
  DOT-AIR, ADR, ADN, IMDG, IATA
  NA1760

- 14.2 UN proper shipping name
  DOT
  NA1760, compound, cleaning, liquid, (containing potassium hydroxide solution), 8, PG II.

- 14.3 Transport hazard class(es)
  DOT
  Class
  8 Corrosive.
  Label
  8

- 14.4 Packing group
  DOT, ADR, IMDG, IATA
  II

- 14.5 Environmental hazards:
  Marine pollutant: No

- 14.6 Special precautions for user
  Warning: Corrosive Substances
  Danger Code: 80
  EMS Number: F-A,S-B
  Segregation groups: Alkalis

- 14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code
  Not applicable.

- Transport/Additional information: Not applicable.
Trade name: Dairyland Brand Chlorinated Pipeline Detergent

### 15 Regulatory information

- **SARA**
  - **Section 313 (Specific toxic chemical listings):**
    - None of the ingredients is listed.
  - **TSCA (Toxic Substances Control Act):**
    - All ingredients are listed.
- **Proposition 65 (California):**
  - **Chemicals known to cause cancer:**
    - None of the ingredients is listed.
  - **Chemicals known to cause reproductive toxicity for females:**
    - None of the ingredients is listed.
  - **Chemicals known to cause reproductive toxicity for males:**
    - None of the ingredients is listed.
  - **Chemicals known to cause developmental toxicity:**
    - None of the ingredients is listed.
- **EPA (Environmental Protection Agency)**
  - None of the ingredients is listed.
- **IARC (International Agency for Research on Cancer)**
  - None of the ingredients is listed.
- **STATE RIGHT-TO-KNOW:**
  - 7732-18-5 water
  - 1310-58-3 potassium hydroxide
  - 7681-52-9 sodium hypochlorite
  - 7320-34-5 tetrapotassium pyrophosphate
  - 1344-09-8 sodium silicate
- **TLV (Threshold Limit Value established by ACGIH)**
  - None of the ingredients is listed.
- **NIOSH-Ca (National Institute for Occupational Safety and Health)**
  - None of the ingredients is listed.
- **OSHA-Ca (Occupational Safety & Health Administration)**
  - None of the ingredients is listed.
Trade name: Dairyland Brand Chlorinated Pipeline Detergent

- Canada
  - Canadian Domestic Substances List (DSL)
    All ingredients are listed.
  - Canadian Ingredient Disclosure list (limit 0.1%)
    None of the ingredients is listed.
  - Canadian Ingredient Disclosure list (limit 1%)
    None of the ingredients is listed.
  - 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16 Other information
This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- Relevant phrases
  H302 Harmful if swallowed.
  H314 Causes severe skin burns and eye damage.
  H318 Causes serious eye damage.
  R22 Harmful if swallowed.
  R36 Irritating to eyes.
  R40 Limited evidence of a carcinogenic effect.
  R41 Risk of serious damage to eyes.

SDS File Name: UM10 DB Chlorinated Pipeline Detergent SDS

- Abbreviations and acronyms:
  ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
  IMDG: International Maritime Code for Dangerous Goods
  DOT: US Department of Transportation
  IATA: International Air Transport Association
  GHS: Globally Harmonized System of Classification and Labeling of Chemicals
  ACGIH: American Conference of Governmental Industrial Hygienists
  EINECS: European Inventory of Existing Commercial Chemical Substances
  ELINCS: European List of Notified Chemical Substances
  CAS: Chemical Abstracts Service (division of the American Chemical Society)
  NFPA: National Fire Protection Association (USA)
  HMIS: Hazardous Materials Identification System (USA)
  WHMIS: Workplace Hazardous Materials Information System (Canada)
  DNEL: Derived No-Effect Level (REACH)
  PNEC: Predicted No-Effect Concentration (REACH)
  LD50: Lethal dose, 50 percent

Revision: 10/12/2017

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