





# Safety Data Sheet

## Del-Flow IP

| 1. IDENTIFICATION OF SUBSTANCE, PREPARATION AND COMPANY |   |                                     |                                    |
|---|---|-------------------------------------|------------------------------------|
| Product Name  | Del-Flow IP   |                                     |                                    |
| Address / Phone Number                                  | Delf (UK) Ltd<br>Unit 2 Hickmans Road<br>Birkenhead<br>Wirral CH41 1JH Tel: (00 44) 151 630 0405 Fax: (00 44) 151 630 0406 E-mail: <a href="mailto:info@delf-uk.com">info@delf-uk.com</a>   |                                     |                                    |
| Emergency Phone No.                                     | IN AN EMERGENCY DIAL LOCAL EMERGENCY SERVICES   |                                     |                                    |
| 2. COMPOSITION / INFORMATION                            |   |                                     |                                    |
| Product Description                                     | A chlorinated alkaline detergent cleaner / descaler for in-place circulation cleaning of dairy equipment.   |                                     |                                    |
| Alternative Names                                       | Circulation Cleaner.  |                                     |                                    |
| Hazardous Ingredient(s)                                 | Sodium Hydroxide CAS NO. 001310-73-2 Sodium Hypochlorite CAS No. 007681-52-9  |                                     |                                    |
| 3. HAZARDS IDENTIFICATION                               |   |                                     |                                    |
| Most Important Hazard(s)                                | Corrosive. Causes burns. Contact with acids liberates toxic Chlorine gas.   |                                     |                                    |
| 4. FIRST AID MEASURES                                   |   |                                     |                                    |
| Inhalation  | Fumes or vapour may cause irritation, nausea or drowsiness. If person is exposed to fumes move into fresh air, and if recovery is not rapid seek medical attention.   |                                     |                                    |
| Skin Contact  | Remove contaminated clothing. Wash affected area with plenty of soap and water. If in doubt or symptoms persist obtain medical attention. Launder clothing before re-use.   |                                     |                                    |
| Eye Contact   | IMMEDIATELY irrigate eye with plenty of water or eye-wash solution for 10 minutes. Obtain medical attention.  |                                     |                                    |
| Ingestion   | Only if person is conscious, rinse mouth out with plenty of water and give 200-300ml water to drink. DO NOT INDUCE VOMITING. Keep patient at rest and obtain medical attention.   |                                     |                                    |
| 5. FIRE FIGHTING MEASURES                               |   |                                     |                                    |
| <i>Non-combustible</i>                                  |   |                                     |                                    |
| Extinguishing Media                                     | Use extinguishing media suitable for surrounding fire or the cause of fire. Keep containers cool by spraying with water.  |                                     |                                    |
| Fire Fighting Protective Equipment.                     | Wear self-contained breathing apparatus, and suitable protective clothing.  |                                     |                                    |
| 6. ACCIDENTAL RELEASE MEASURES                          |   |                                     |                                    |
| Personal Precautions                                    | Avoid direct contact with skin, eyes and clothing. See exposure controls / personal protection (section 8).   |                                     |                                    |
| Spillages   | Small Spillages: Flush area to drain with plenty of water.<br>Large Spillages: Where possible, transfer to a container for reuse or disposal (see Disposal Considerations – Section 13). Contain and absorb using earth, sand or other inert material. Flush area to drain with plenty of water. Treat as industrial waste. |                                     |                                    |
| Environmental Precautions                               | Do not allow to contaminate vegetation, or enter drains or water courses. Spillages or uncontrolled contamination of soil or discharges into watercourses, drains or sewers must be reported immediately to the Environment Agency, local water company or other appropriate regulatory bodies.                             |                                     |                                    |
| 7. HANDLING AND STORAGE                                 |   |                                     |                                    |
| Handling  | Use product in accordance with good industrial practices for handling and storing of hazardous chemicals. Avoid contact with skin and eyes. Do not mix with other chemicals.  |                                     |                                    |
| Storage   | Keep in original packaging. Store in a cool dry well ventilated area. Protect from heat and direct sunlight. Keep away from incompatible materials. Careful storage reduces the rate of decomposition (releases oxygen).  |                                     |                                    |
| 8. EXPOSURE CONTROL/PERSONAL PROTECTION                 |   |                                     |                                    |
| Personal Protective Equipment                           | Wear protective clothing and closed footwear, impervious PVC or butyl rubber gloves, and approved chemical safety goggles or face protection.   |                                     |                                    |
| Occupational Exposure Limits                            | Product   | Long Term Exposure Limit (8 hr TWA) | Short Term Exposure Limit (15 Min) |
|   | Sodium Hydroxide  | -                                   | 2mg/m <sup>3</sup>                 |
|   | Chlorine  | 1.5 mg/m <sup>3</sup>               | 2.9mg/m <sup>3</sup>               |
| 9. CHEMICAL AND PHYSICAL PROPERTIES                     |   |                                     |                                    |
| Appearance  | Clear greenish/yellow liquid  | Specific Gravity (20°C) (g/ml)      | 1.16 +/- 0.02                      |
| Odour   | Characteristic Chlorine odour   | pH                                  | 12 (1% w/w solution)               |
| Solubility  | Soluble in water  | Freezing Point                      | < 0°C                              |

| 10. STABILITY AND REACTIVITY              |  |   |   |
|---|--|---|---|
| <b>Stability</b>                          | Stable under normal conditions of use, and when correctly stored.  |   |   |
| <b>Known Hazardous Reactions</b>          | Reacts violently with acids and liberates toxic chlorine gas. Reacts dangerously with strong oxidising agents. Aluminium, Zinc or their alloys will cause the formation of flammable hydrogen gas.   |   |   |
| <b>Materials to avoid</b>                 | Acids, Ammonia solutions and Amines, form explosive compounds. Can react violently in contact with Methanol. Aluminium, brass, copper, galvanised steel, generating hydrogen.  |   |   |
| <b>Hazardous Decomposition Product(s)</b> | Noxious, toxic or corrosive vapours may be released in a fire situation and Chlorine gas may be evolved.   |   |   |
| 11. TOXICOLOGICAL INFORMATION             |  |   |   |
| <b>Inhalation</b>                         | May cause severe Irritation to respiratory system and mucous membranes.  |   |   |
| <b>Skin contact</b>                       | Causes burns and repeated or prolonged contact with dilute solutions may cause dermatitis. May cause skin sensitisation.   |   |   |
| <b>Eye contact</b>                        | Causes burns. If treated <u>rapidly</u> , permanent damage may be avoided  |   |   |
| <b>Ingestion</b>                          | May cause burns to mucous membranes and digestive tract. May cause nausea, and stomach pains.  |   |   |
| <b>Long Term Exposure</b>                 | Acute effects predominate.   |   |   |
| 12. ECOLOGICAL INFORMATION                |  |   |   |
| <b>Persistence and Degradation</b>        | Del-Flow IP is not expected to bio-accumulate.   |   |   |
| <b>Toxicity</b>                           | Highly toxic in the aquatic environment. Very Toxic to Fish.   |   |   |
| <b>Effect on Effluent Treatment</b>       | The product is substantially removed in biological treatment process. There is evidence of inhibition to the aerobic treatment process at a concentration of 0.05 mg/l.  |   |   |
| 13. DISPOSAL CONSIDERATIONS               |  |   |   |
| <b>Waste</b>                              | Large quantities may only be disposed of in accordance with Waste Disposal Regulations.  |   |   |
| 14. TRANSPORT INFORMATION                 |  |   |   |
| <b>UN Transport Name</b>                  | Corrosive Liquid NOS   | <b>Transport Hazard Symbol</b>  |  |
| <b>UN Number</b>                          | 1760   | <b>Packaging</b>  | 25 Litre and 200 Litre HDPE UN containers   |
| <b>UN Primary Class</b>                   | 8  | <b>Normal Carriage Temp.</b>  | Ambient.  |
| <b>UN Packaging Group</b>                 | III  |   |   |
| 15. REGULATORY INFORMATION                |  |   |   |
| <b>Hazard Symbols</b>                     |   |   |   |
| <b>Risk Phrases</b>                       | R31:   | Contact with acids liberates toxic Chlorine gas.  |   |
|   | R34:   | Causes burns.   |   |
| <b>Safety Phrases</b>                     | S1/2:  | Keep locked up and out of the reach of children.  |   |
|   | S26:   | In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.               |   |
|   | S28:   | After contact with skin wash immediately with plenty of water.  |   |
|   | S36/37/39:   | Wear suitable protective clothing and, gloves, and eye/face protection.                                     |   |
|   | S45:   | In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). |   |
| 16. OTHER INFORMATION                     |  |   |   |
| <b>2002</b>                               | Control of Substances Hazardous to Health Regulations.   |   |   |
| <b>2004</b>                               | Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations.   |   |   |
| <b>2002</b>                               | Chemical (Hazard Information and Packaging for supply) Regulations.  |   |   |
|   | EH40 Occupational Exposure Limits.   |   |   |
| <b>Legal Disclaimer</b>                   | The above information is based on the present state of our knowledge of the product at the time of publication. It is given in good faith. For further details see Delf (UK) Ltd. conditions of sale (additional copies of this are available on request). |   |   |
| <b>Date of issue</b>                      | January 2011 Revision 3  | Approved By: C G Jones  |   |