SAFETY DATA SHEET
Sodium Hypochlorite

1 IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY/UNDERTAKING

PRODUCT NAME
Sodium Hypochlorite

SYNONYMS, TRADE NAMES
Bleach, , Hypo, , Everchlor, , Chloros, , Hispec, , Bridos, , Bleacol, , Vo-redox 9110,

SUPPLIER
UNIVAR LTD
46 Peckover Street
BRADFORD
West Yorkshire
United Kingdom
BD1 5BD
Tel: +44 1274 377000
Fax: +44 1274 377001
sds@univareurope.com

SDS No.
S024

Emergency Contact Number (Office Hours)
+441274 377070

Emergency Contact Number (Outside Office Hours)
+441865 407333

2 HAZARDS IDENTIFICATION

Causes burns. Contact with acids liberates toxic gas.

CLASSIFICATION
C;R34, R31.

3 COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Name</th>
<th>EC No.</th>
<th>CAS-No.</th>
<th>Content</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>SODIUM HYPOCHLORITE SOLUTION, ... %</td>
<td>231-668-3</td>
<td>7681-52-9</td>
<td>10-25%</td>
<td>C;R34 R31 N;R50</td>
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</tbody>
</table>

The Full Text for all R-Phrases are Displayed in Section 16

4 FIRST-AID MEASURES

INHALATION
Remove victim immediately from source of exposure. Keep the affected person warm and at rest. Get prompt medical attention.

INGESTION
NEVER MAKE AN UNCONSCIOUS PERSON VOMIT OR DRINK FLUIDS! Rinse mouth thoroughly. Get medical attention immediately!

SKIN CONTACT
Remove affected person from source of contamination. Remove contaminated clothing. Wash the skin immediately with soap and water. Get medical attention promptly if symptoms occur after washing.

EYE CONTACT
Remove victim immediately from source of exposure. Make sure to remove any contact lenses from the eyes before rinsing. Promptly wash eyes with plenty of water while lifting the eye lids. Get medical attention immediately. Continue to rinse.

5 FIRE-FIGHTING MEASURES

EXTINGUISHING MEDIA
This product is not flammable. Use fire-extinguishing media appropriate for surrounding materials.
Sodium Hypochlorite

SPECIFIC HAZARDS
Chlorine. Oxygen.

PROTECTIVE MEASURES IN FIRE
Self contained breathing apparatus and full protective clothing must be worn in case of fire.

6 ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS
Wear protective clothing as described in Section 8 of this safety data sheet.

ENVIRONMENTAL PRECAUTIONS
Do not allow ANY environmental contamination. Spillages or uncontrolled discharges into watercourses must be IMMEDIATELY alerted to the Environmental Agency or other appropriate regulatory body.

SPILL CLEAN UP METHODS
DO NOT TOUCH SPILLED MATERIAL! Stop leak if possible without risk. Absorb in vermiculite, dry sand or earth and place into containers. Flush with plenty of water to clean spillage area.

7 HANDLING AND STORAGE

USAGE PRECAUTIONS
Avoid spilling, skin and eye contact.

STORAGE PRECAUTIONS
Store in tightly closed original container in a dry, cool and well-ventilated place. Keep in original container.

STORAGE CLASS
Corrosive storage.

8 EXPOSURE CONTROLS/PERSOAL PROTECTION

INGREDIENT COMMENTS
WEL = Workplace Exposure Limits

PROTECTIVE EQUIPMENT

PROCESS CONDITIONS
Provide eyewash, quick drench.

ENGINEERING MEASURES
Provide adequate ventilation. Observe Workplace Exposure Limits and minimise the risk of inhalation of vapours.

RESPIRATORY EQUIPMENT
No specific recommendation made, but respiratory protection may still be required under exceptional circumstances when excessive air contamination exists.

HAND PROTECTION
Use suitable protective gloves if risk of skin contact.

EYE PROTECTION
If risk of splashing, wear safety goggles or face shield.

OTHER PROTECTION
Wear appropriate clothing to prevent any possibility of skin contact.

HYGIENE MEASURES
DO NOT SMOKE IN WORK AREA! Wash at the end of each work shift and before eating, smoking and using the toilet. Wash promptly if skin becomes wet or contaminated. Promptly remove any clothing that becomes contaminated. When using do not eat, drink or smoke.

9 PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE
Liquid
Sodium Hypochlorite

**COLOUR**
Green yellow

**SOLUBILITY**
Completely soluble in water

**BOILING POINT (°C)**
>100

**MELTING POINT (°C)**
-17

**RELATIVE DENSITY**
1.20 - 1.27

**pH-VALUE, CONC. SOLUTION**
>12

### 10 STABILITY AND REACTIVITY

**STABILITY**
Stable under normal temperature conditions.

**CONDITIONS TO AVOID**
Avoid excessive heat for prolonged periods of time. Avoid contact with acids.

**MATERIALS TO AVOID**
Strong acids. Ammonia or amines. Hydrocarbons.

**HAZARDOUS DECOMPOSITION PRODUCTS**
Fire creates: Chlorine.

### 11 TOXICOLOGICAL INFORMATION

**TOXIC DOSE 1 - LD 50**
8910 mg/kg (oral rat)

**INHALATION**
May cause damage to mucous membranes in nose, throat, lungs and bronchial system.

**INGESTION**
May cause burns in mucous membranes, throat, oesophagus and stomach.

**SKIN CONTACT**
May cause serious chemical burns of the skin.

**EYE CONTACT**
Causes burns.

### 12 ECOLOGICAL INFORMATION

**MOBILITY**
The product is soluble in water.

### 13 DISPOSAL CONSIDERATIONS

**GENERAL INFORMATION**
Do not puncture or incinerate even when empty.

**DISPOSAL METHODS**
Dispose of waste and residues in accordance with local authority requirements.

### 14 TRANSPORT INFORMATION

**UK ROAD CLASS**
8

**PROPER SHIPPING NAME**
SODIUM HYPOCHLORITE SOLUTION, ... % CI ACTIVE

**UN NO. ROAD**
1791

**UK ROAD PACK GR.**
ADR CLASS

**ADR CLASS NO.**
8

**ADR PACK GROUP**
III

**ADR LABEL NO.**
8

**HAZCHEM CODE**
2X

**RID CLASS NO.**
8

Class 8: Corrosive substances.
**15 REGULATORY INFORMATION**

**LABELLING**

Corrosive

**CONTAINS**

SODIUM HYPOCHLORITE SOLUTION, ... % CI ACTIVE

**RISK PHRASES**

R31 Contact with acids liberates toxic gas.

R34 Causes burns.

**SAFETY PHRASES**

P6 Warning! Do not use with other products. May release dangerous gases (chlorine).

S1/2 Keep locked up and out of the reach of children.

S28 After contact with skin, wash immediately with plenty of water.

S45 In case of accident or if you feel unwell, seek medical advice immediately (show label where possible).

S50 Do not mix with acid.

**STATUTORY INSTRUMENTS**

Chemicals (Hazard Information and Packaging) Regulations.

**APPROVED CODE OF PRACTICE**

Safety Data Sheets for Substances and Preparations. Classification and Labelling of Substances and Preparations Dangerous for Supply.

**GUIDANCE NOTES**

Workplace Exposure Limits EH40. CHIP for everyone HSG(108).

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**16 OTHER INFORMATION**

**REVISION DATE** 9th August 2007

**REV. NO./REPL. SDS GENERATED** 07

**SDS NO.** S024

**DATE** 9th August 2007

**SIGNATURE** Jitendra Panchal

**RISK PHRASES IN FULL**

R31 Contact with acids liberates toxic gas.

R34 Causes burns.

R50 Very toxic to aquatic organisms.