

### Section 1 - IDENTIFICATION OF THE SUBSTANCE AND OF THE COMPANY

#### 1.1 Product identifier

- **Product Name :** PL-4

#### 1.2 Relevant identified uses of the substances or mixture and used advised against

- **Recommended use :** Chlorinated alkaline cleaner
- **Recommended restrictions :** For industrial use only

#### 1.3 Details of supplier of the safety data sheet :

- **Manufacturer Details:** ZOHAR DALIA C.A.A. Ltd.,  
Kibbutz Dalia 1923900, Israel  
Tel. 972-4-9897234  
Fax 972-4-9897200

#### 1.4 Emergency telephone number :

- **Emergency Telephone & Contact:** Tel: +972-4-9897515

### Section 2 - HAZARDS IDENTIFICATION

#### 2.1 Classification of substance or mixture according to Regulation (EC) No 1272/2008 (CLP)

Human health hazard categories and codes:	Metal Corrosion	Category 1
	Skin corrosion	Category 1A
	Eye Damage	Category 1
Environmental hazard categories and codes:	Aquatic Acute	Category 1

#### 2.2 Labeling according to Regulation (EC) No 1272/2008 (CLP)

- **Hazard Pictogram :** **SIGNAL WORD: Danger**



GHS05  
Corrosion



GHS09  
Environment

#### Hazard determining components of labeling:

- **Hazard Statements :** Sodium hydroxide  
Sodium hypochlorite  
H290 May be corrosive to metals.  
H314 Causes severe skin burns and eye damage.  
H400 Very toxic to aquatic life.
- **Precautionary Statements:** P273: Avoid release to the environment.  
P280 Wear protective gloves/protective clothing/eye protection/face protection.  
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.  
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310 Immediately call a POISON CENTER/doctor if you feel unwell.  
 P501 Dispose of contents/container to an approved waste disposal plant

### 2.3. Other hazards

Not known

## Section 3 - COMPOSITION/INFORMATION ON INGREDIENTS

Mixture

Constituent	CAS No.	EC No.	Concentration range	Classification according to Regulation (EC) No 1272/2008 (CLP)	Remarks
Sodium Hydroxide	1310-73-2	215-185-5	>=10.0% <25.0 %	Met. Corr. 1; H290 Skin Corr. 1A; H314 Eye Dam. 1; H318	Skin Corr. 1A H314: C ≥ 5%
Sodium Hypochlorite	7681-52-9	231-668-3	>=1.0% < 5.0 %	Skin Corr. 1B; H314 Aquatic Acute 1; H400	None

## Section 4 - FIRST AID MEASURES

### 4.1 Description of First Aid measures:

- **General measures** : Take off all contaminated clothing immediately. In the case of accident or if you feel unwell, seek medical advice immediately.
- **Eye contact** : IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. In case of eye irritation consult an ophthalmologist.
- **Skin Contact** : Wash off immediately with plenty of water for at least 15 minutes. Take off all contaminated clothing immediately. Consult a physician.
- **Inhalation** : Remove from exposure, lie down. If breathing is irregular or stopped, administer artificial respiration. Consult a physician.
- **Ingestion** : If swallowed, rinse mouth with water (only if the person is conscious). Consult a physician.

### 4.2. Most important symptoms and effects, both acute and delayed

- In all cases of doubt, or when symptoms persist, seek medical advice.

### 4.3. Indication of any immediate medical attention and special treatment needed

- Advice to physician: symptomatic treatment is advised.
- Eye rinsing device shall be made available at any point of handling of the product.

## Section 5 - FIRE-FIGHTING MEASURES

### 5.1. Extinguishing media:

**Suitable extinguishing media:** Water spray, Dry powder, Foam, Carbon dioxide (CO<sub>2</sub>)

**Unsuitable extinguishing media:** None known

**5.2. Special hazards arising from the substance or mixture:** Not combustible. Gives off irritating or toxic fumes in a fire.

### 5.3. Advice for fire-fighters

- Use fire fighting water moderately and contain it.
- Use water spray to cool tanks/containers exposed to heat / remove them into safety.
- In the event of fire, wear self-contained breathing apparatus.
- Use personal protective equipment.
- Wear chemical resistant oversuit

## Section 6 - ACCIDENTAL RELEASE MEASURES

### 6.1. Personal precautions, protective equipment and emergency procedures

- **Personal Protective Equipment :** Wear self-contained breathing apparatus in case of fire.  
Wear corrosion-proof suit
- **Eye Protection :** Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).
- **Skin Protection :** Avoid contact with skin by use of protective equipment. (as mentioned in section 8.2)
- **Respiratory Protection :** Wear personal protective equipment. (as mentioned in section 8.2)
- **Work Practices :** Wear eye/face protection.

### 6.2. Environmental precautions:

- Should not be released into the environment.
- Do not flush into surface water or sanitary sewer system.
- If the product contaminates rivers and lakes or drains inform respective authorities.

### 6.3. Methods and material for containment and cleaning:

- Recovery: Pump into a clean labelled emergency container after cleaning, flush away traces with water. recover water for later processing
- Large spillage – pump onto plastic containers and rework/dispose as per local legislation.
- Small spillage – use non-combustible absorbent and shovel into container for disposal.
- Neutralization: Neutralize contaminated water with a suitable solvent
- Equipment must be corrosion resistant.

## Section 7 - HANDLING AND STORAGE

### 7.1 Precautions for safe handling

- Observe strict hygiene - avoid eye and skin contact.
- Avoid splashing of material.
- Safety showers should be readily available in handling and storage areas.
- Eye wash fountains should be located in the work areas and should be immediately accessible for emergency use.
- Remove contaminated clothing immediately.

- Use only equipment and materials which are compatible with the product.
- To avoid thermal decomposition, do not overheat.
- Do not mix with ammonia or acids as hazardous fumes may result.
- Do not reuse empty container.

### 7.2 Conditions for safe storage:

- Store in original container.
- Keep in a well-ventilated place.
- Keep in a dry place.
- Keep in properly labelled containers.
- Keep container closed.
- Keep away from incompatible products.

### 7.3 Specific end use(s):

- As prescribed in section 1.2

## Section 8 – EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1 Control parameters:

Not Applicable.

### 8.2 Exposure Control:

- |                                  |   |
|----------------------------------|---|
| • <b>Engineering measures:</b>   | Ensure adequate ventilation, especially in confined areas.  |
| • <b>Respiratory Protection:</b> | In case of insufficient ventilation, wear suitable respiratory equipment.<br>In the case of hazardous fumes, wear self-contained breathing apparatus. |
| • <b>Hand Protection:</b>        | Splash contact, intermittent and prolonged PVC gloves   |
| • <b>Eye Protection:</b>         | Safety glasses with side-shields  |
| • <b>Skin Protection:</b>        | waterproof suit, Complete chemical protection suit, Boots   |
| • <b>Protective measures :</b>   | Wear suitable gloves and eye/face protection. Avoid contact with the skin and the eyes. General industrial hygiene practice.                          |

## Section 9 – PHYSICAL & CHEMICAL PROPERTIES:

### 9.1 Information on basic physical and chemical properties:

- |  |                  |
|--|------------------|
| • <b>Appearance:</b>                                   | Yellowish Liquid |
| • <b>Odour:</b>  | Characteristic   |
| • <b>Odour threshold:</b>                              | N.A.             |
| • <b>pH (1% in water):</b>                             | 13.0 – 14.0      |
| • <b>Melting point/Freezing point:</b>                 | N.A.             |
| • <b>Initial boiling point and boiling range:</b>      | > 100 °C         |
| • <b>Flash point:</b>                                  | N.A.             |
| • <b>Evaporation rate:</b>                             | N.A.             |
| • <b>Flammability(solid/gas):</b>                      | N.A.             |
| • <b>Upper/lower flammability or explosive limits:</b> | N.A.             |

- Vapour pressure: N.A.
- Vapour density: N.A.
- Density(20°C): 1.195 g/ml
- Solubility in water : Miscible (in all proportions)
- Partition coefficient: n-octanol/water: N.A.
- Auto-ignition temperature: N.A.
- Decomposition temperature: N.A.
- Viscosity: N.A.
- Explosive properties: No
- Oxidizing properties: N.A.

**9.2 Other information:** Not available

### Section 10 - STABILITY AND REACTIVITY

- Reactivity : Potential for exothermic hazard  
May be corrosive to metals.
- Chemical stability : Stable under recommended storage and handling conditions.
- Possibility of hazardous reactions : The product decomposes on heating, on contact with acids under influence of light producing toxic and corrosive gases including chlorine.
- Conditions to avoid : Heat, direct sunlight
- Hazardous decomposition products : No hazardous decomposition products if stored and handled as prescribed/indicated.
- Incompatible materials : Strong acids, ammonia, organics

### Section 11 - TOXICOLOGICAL INFORMATION

#### 11.1 Information on toxicological effects:

- No data available

#### 11.2 Irritation Corrosion:

- **Eye:** The product causes eye damage.
- **Skin :** The product found corrosive to skin.

#### 11.3 Sensitization

- The product is not sensitizing to skin.

#### 11.4 CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

- **Carcinogenicity :** Not classified as carcinogen.
- **Mutagenic effects :** Not classified as a mutagen.
- **Reprotoxic effects :** Not found to be reprotoxic.

#### 11.5 Other toxic effects on humans:

- **Inhalation** : No data available
- **Dermal** : No data available
- **Eyes** : No data available.
- **Ingestion** : No data available
- **Chronic toxicity** : No data available

### 11.6 NIOSH Immediately Dangerous To Life or Health Concentration (IDLH):

- No information available

### 11.7 Specific target organ toxicity:

- **Single exposure** : No experimental or epidemiological sufficient evidence for specific target organ toxicity
- **Repeated exposure** : No experimental or epidemiological sufficient evidence for specific target organ toxicity

## Section 12 - ECOLOGICAL INFORMATION

### 12.1 Ecotoxicity:

- Aquatic toxicity (acute): Product contains sodium hypochlorite which is very toxic to aquatic life.

### 12.2 Persistence and degradability:

- Data not available for product.

### 12.3 Bioaccumulative potential:

- Data not available

### 12.4 Mobility in soil:

- Data not available

### 12.5 Results of PBT and vPvB assessment:

- Not PBT and PVB

### 12.6 Other adverse effects:

- None

## Section 13 - DISPOSAL CONSIDERATIONS:

- **Disposal of product** : Dilute with water. Neutralize contaminated water with a suitable solvent solution.  
Recover waste water for processing later.
- **Disposal of packaging** : Clean container with water. Recover waste water for processing later.

## Section 14 - TRANSPORT INFORMATION:

Classified as dangerous in the meaning of transport regulations due to its composition.

### Land transport (ADR/RID)

- **UN Number** : 1791
- **UN proper shipping name** : Hypochlorite solution
- **Transport hazard class** : 8
- **Packing group** : III

### Marine transport (IMDG)

- **UN Number** : 1791
- **UN proper shipping name** : Hypochlorite solution
- **Transport hazard class** : 8
- **Packing group** : III
- **EmS number** : F-A, S-B
- **Marine pollutant** : Yes

### Air transport (ICAO/IATA)

- **UN Number** : 1791
- **UN proper shipping name** : Hypochlorite solution
- **Transport hazard class** : 8
- **Packing group** : III

## Section 15 - REGULATORY INFORMATION

### 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture:

EU Regulations:

- Regulation (EC) No. 1907/2006 - REACH
- Regulation (EC) No 1272/2008 – CLP
- Regulation (EC) No. 648/2004 - Detergents regulation

#### Ingredients according to EC Detergents Regulation 648/2004

Chlorine based bleaching agents <5%

Phosphonates <5%

Polycarboxylates <5%

The surfactants contained in this preparation comply with the biodegradability criteria as laid down in Regulation (EC) No. 648/2004 on detergents.

### 15.2 Chemical Safety Assessment:

- A chemical safety assessment has not been carried out.

## Section 16 – OTHER INFORMATION

Classification procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008[CLP]:

The classification of the mixture is based on calculation methods using substance data.

- **Relevant phrases:**

H290 May be corrosive to metals.

H314 Causes severe skin burns and eye damage.

H318 Causes serious eye damage.

H400 Very toxic to aquatic life.

- **Abbreviations and acronyms:**

ADR: The European Agreement concerning the International Carriage of Dangerous Goods by Road

IMDG: International Maritime Code for Dangerous Goods  
IATA: International Air Transport Association  
GHS: Globally Harmonized System of Classification and Labelling of Chemicals  
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)  
VOC: Volatile Organic Compounds (USA, EU)  
LC50: Lethal concentration, 50 percent  
LD50: Lethal dose, 50 percent  
PBT: Persistent, Bioaccumulative and Toxic  
vPvB: very Persistent and very Bioaccumulative

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Reasons for revision:

This version contains changes from the previous one in sections: 2, 3, 9, 15, 16

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