# SAFETY DATA SHEET 

In accordance with Regulation (EU) No 1907/2006 with amendments
PLATINUM GEAR GL-5 80W-90

## SECTION 1 IDENTIFICATION OF THE SUBSTANGE/MIXTURE AND OF THE COMPANY/UNDERTAKING

### 1.1. Product identifier

Trade name: PLATINUM GEAR GL-5 80W-90
Mixture ingredients affecting the classification: Reaction product of bis(4-methylpentan-2-yl)dithiophosphoric acid with phosphorus oxide, propylene oxide, and amines, C12-C14-alkyl (branched), reaction product of 1,3,4-thiadiazolidine-2,5-dithione, formaldehyde and phenol, heptyl derivatives
1.2. Relevant identified uses of the substance or mixture and uses advised against

Identified uses: It is intended to lubricate manual gear boxes and other gears of vehicles operating in difficult conditions i.e. high speed and low torque or low speed and high torque
Uses advised against: other uses not recommended
1.3. Details of the supplier of the safety data sheet

Supplier:
ORLEN OIL Sp. z o.o.
Address: 31-323 Kraków, ul. Opolska 100, Poland
Telephone No/Fax No: +48126655500/+48126655501

E-Mail: msds@orlenoil.pl
1.4. Emergency telephone number

+ 48242010367 or +48134384415 (available from Monday till Friday during office hours: $7 \mathrm{am}-3 \mathrm{pm}$ )
In case of emergency call 112 ( Emergency number), 998 ( Fire Brigade), 999 ( Ambulance Service)


## SECTION 2 HAZARDS IDENTIFICATION

### 2.1. Classification of the substance or mixture

| Classification | According to Regulation (EC) No <br> $1272 / 2008$ (CLP) | According to Council Directive <br> No.67/548/EEC: |
| :--- | :--- | :--- |
| Hazard | Not classified as hazardous | Not classified |
| propertical-chemical | Eye Irrit. 2, H319; Skin Sens. 1, H317 | Xi, R43 |
| for health hazards: | Aquatic Chronic 2, H411 | N;R51/53 |
| for environmental hazards: |  |  |

### 2.2. Label elements

Hazard pictogram(s):


Signal word(s): Warning
Hazard statement(s):
H319 - Causes serious eye irritation.
H317 - May cause an allergic skin reaction.
H411- Toxic to aquatic life with long lasting effects.

## SAFETY DATA SHEET

In accordance with Regulation (EU) No 1907/2006 with amendments
PLATINUM GEAR GL-5 80W-90
Revision: 20.03.2015

Precautionary statement(s):
P101 - If medical advice is needed, have product container or label at hand.
P102 - Keep out of reach of children.
P280 - Wear protective gloves/protective clothing/eye protection/face protection.
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P302+P352 - IF ON SKIN: Wash with plenty of soap and water.
P273 - Avoid release to the environment.
P501 Dispose of contents/container to a licensed waste disposal company.

## Additional information on the label:

It contains: Reaction product of bis(4-methylpentan-2-yl)dithiophosphoric acid with phosphorus oxide, propylene oxide, and amines, C12-C14-alkyl (branched), reaction product of 1,3,4-thiadiazolidine-2,5-dithione, formaldehyde and phenol, heptyl derivatives.

### 2.3. Other hazards

The product does not meet the PBT and vPvB criteria set out in Annex XIII to the REACH Regulation. Flammable product of high flash point.

## SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

### 3.1. Substances - not applicable

3.2. Mixtures: mixture of base oils and enriching additives

Hazardous ingredients and its concentrations in the mixture:
\(\left.$$
\begin{array}{|l|l|l|l|l|l|}\hline \text { Substance name } & \begin{array}{l}\text { REACH } \\
\text { registration } \\
\text { number }\end{array} & \begin{array}{l}\text { CAS No/ EC } \\
\text { No }\end{array} & \underline{\text { \% wt. }} & \begin{array}{l}\text { Classification } \\
\text { according to } \\
\text { Council Directive } \\
\text { No.67/548/EEC }\end{array} & \begin{array}{l}\text { Classification according to EC } \\
\text { Directive No.1272/2008 } \\
\text { (CLP) }\end{array} \\
\hline \begin{array}{l}\text { Reaction product of } \\
\text { bis(4-methylpentan-2- } \\
\text { yl)dithiophosphoric acid } \\
\text { with phosphorus oxide, } \\
\text { propylene oxide, and } \\
\text { amines, C12-C14-alkyl } \\
\text { (branched) }\end{array} & \begin{array}{l}\text { 01- } \\
2119493620-38\end{array} & 931-384-6 & \leq 1,9 & \begin{array}{l}\text { N Xn } \\
\text { R22 R41 R43 } \\
\text { R51/53 }\end{array} & \begin{array}{l}\text { Acute Tox. 4; H302 } \\
\text { Aquatic Chronic 2; H411 } \\
\text { Eye Dam. 1; H318 } \\
\text { Flam. Liq. 3; H226 } \\
\text { Skin Sens. 1; H317 }\end{array} \\
\hline \begin{array}{l}\text { (Z)-octadec-9- } \\
\text { enylamine }\end{array} & \text { Not available } & 204-015-5 & \leq 0,6 & \begin{array}{l}\text { C N } \\
\text { R22 R34 R37 } \\
\text { R48/22 R50/53 }\end{array} & \begin{array}{l}\text { Acute Tox. 4; H302 } \\
\text { Aquatic Acute 1; H400 } \\
\text { Aquatic Chronic 1;H410 } \\
\text { Asp.Tox.1;H304 }\end{array}
$$ <br>

Ey Dam. 1; H318\end{array}\right]\)| Skin Corr. 1B; H314 |
| :--- |

Description of the R, H phrases is given in Section 16.

## SECTION 4. FIRST AID MEASURES

### 4.1. Description of first aid measures

## Inhalation:

Due to the low content of volatile compounds the oil at ambient temperature does not pose inhalation hazard. The risk of inhalation exists in case of product mist formation or as a result of heating. Remove the victim (move/carry) from the exposure area to fresh air and keep warm and quiet. Place an unconscious person in he recovery position, loosen tight parts of clothes; control and maintain patency of the airways. Give oxygen in the case of breathing disorders; if not breathing, use artificial ventilation. In the case of loss of consciousness, respiratory disorders or persisting symptoms obtain medical aid immediately.

## Contact with skin:

Immediately remove contaminated/soaked clothes and shoes. Thoroughly wash contaminated skin with soapy water or mild detergent, and then rinse with water. Consult a doctor if irritation symptoms appear and persist.
NOTE: Take off contaminated/soaked clothes and remove it to a safe place, far from heat and ignition sources.
Contact with eyes:
Flush contaminated eyes with running water, remove contact lenses (if present) and continue flushing for approx. 15 minutes. When flushing, keep the eyelids wide open and keep moving the eyeballs. When symptoms appear and persist, consult a doctor.
NOTE: Do not use too strong stream of water which may damage the cornea.
Ingestion:
DO NOT INDUCE VOMITING - increased risk of aspiration. In the case when spontaneous vomiting occurs, keep the victim leaning forward, with her/his face directed to the ground. Ensure medical assistance.
4.2. Most important symptoms and effects, both acute and delayed

The product has negative effects on the central nervous system. Upon inhalation, its narcotic effect in the concentration of $8 \mathrm{mg} / \mathrm{I}$ in air causes nausea to narcosis, while concentrations of $40 \mathrm{mg} / \mathrm{l}$ may be fatal after 5 to 10 minute inhalation. Repeated exposures may cause chronic neurologic effects.
4.3. Indication of any immediate medical attention and special treatment needed

Do not induce vomiting and do not administer anything orally to an unconscious person. Show safety data sheet or the label / packaging to the medical personnel providing assistance. A person providing first aid in the area where vapour/fog concentration is unknown should be equipped with the appropriate respiratory protection.
Indications for a doctor: symptomatical treatment.

## SECTION 5. FIREFIGHTING MEASURES

### 5.1. Extinguishing media

Suitable Extinguishing Media: carbon dioxide, dry powder, foam; water spray.
Unsuitable Extinguishing Media: water jet.

### 5.2. Special hazards arising from the substance or mixture

Flammable product. In the fire environment smokes containing carbon oxides and other unidentified thermal decomposition products of higher hydrocarbons are formed. Avoid breathing products being released in the fire environment.

### 5.3. Advice for firefighters

Proceed in accordance with procedures applicable for extinguishing chemical fire. In the case of fire involving great amounts of the product, remove all bystanders not participating in action; call emergency brigades and the Fire Brigade.
Cool the containers exposed to fire or high temperature with water spray from a safe distance, if possible and remove them from the endangered area.
Prevent the wastewater after fire extinguishing from penetrating sewage and water tanks. Remove wastewater and residue after firefighting in accordance with valid regulations.
People participating in the fire-extinguishing action should be properly trained, equipped with a full protective clothing and a self-containing breathing apparatus.

## SECTION 6. ACCIDENTAL RELEASE MEASURES

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

Use individual protection measures - see section 8 of the Safety Data Sheet.
Limit the access of bystanders to the endangered area until proper cleaning operations are finished. Ensure that breakdown and its results are eliminated by a properly trained staff only.
Avoid eyes, skin and clothing contamination. NOTE: Spilled oils can make surfaces slippery.

### 6.2. Environmental precautions

If possible and safe, stop or limit product release. Limit large spillage by embanking the area. Prevent from entering sewers, rivers or other bodies of water and soil. Notify respective authorities (Occupational Safety and Health Administration, emergency brigades, Environment Protection Authority and Local Administration).

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

Cover up small spillage with non-flammable, neutral absorbent material (sand, soil, diatomic earth, vermiculite) and collect in an appropriate, closed, labelled waste bin. Clean the contaminated area with water with detergent, and then rinse with water. Pump off large amounts of liquid. Dispose of according to the applicable regulations. If necessary, obtain help from specialist companies dealing with waste transport and utilisation in order to remove the product/absorbent material contaminated with the product. Use the services of professional waste transport/ utilization companies.

### 6.4. Reference to other sections

Refer to Sections 8 and 13 of the safety data sheet.

## SECTION 7. HANDLING AND STORAGE

### 7.1. Precautions for safe handling

Provide effective ventilation. Avoid contact with the eyes, skin and clothes. Keep unused containers tightly closed. Essential hygiene rules should be observed: do not eat, drink or smoke during work, wash hands with soapy water after work/after break in work. Do not use contaminated clothing; Immediately remove contaminated clothing and wash before reuse. NOTE: Take off contaminated/soaked clothes and remove it to a safe place, far from heat and ignition sources. Use individual protection measures in accordance with the information contained in section 8 of the Safety Data Sheet.

### 7.2. Conditions for safe storage, including any incompatibilities

Store in tightly sealed and properly labelled containers, in a cool, well ventilated place with a non-absorbing ground. The product may be stored in storage tanks in accordance with applicable regulations. Store far from heat sources, protect from direct sunlight. Protect against contamination and water accumulation. Keep away from strong oxidisers. Prevent the product from penetrating ground and water.

### 7.3. Specific end use(s) <br> None.

## SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1. Control parameters

Highly refined mineral oils - inhaled fraction: TLV-TWA: $5 \mathrm{mg} / \mathrm{m}^{3}$, TLV-STEL: - $\mathrm{mg} / \mathrm{m}^{3}$, TLV-C: -

Directive of the Minister of Work and Social Policy dated June 6th, 2014 on the maximum occupational levels of factors hazardous to health at the workplace (Dz.U. 2014, item 817)

Unspecified base oil:
DNEL $_{\text {worker }}$ (oral, chronic toxicity) $\quad 5.4 \mathrm{mg} / \mathrm{m}^{3} / 8 \mathrm{~h}$ (aerosol)
$\mathrm{DNEL}_{\text {consumer }}$ (oral, chronic toxicity)
PNEC ${ }_{\text {water, }}$ sediment, soil, wastewater treatment plant, mammals
PNEC (oral, mammals)
$1.2 \mathrm{mg} / \mathrm{m}^{3} / 24 \mathrm{~h}$ (aerosol)
Not applicable (a substance does not pose a danger to environment)
$9.33 \mathrm{mg} / \mathrm{kg}$ of food

### 8.2. Exposure controls

Recommended methods of exposure assessment in the air:

- PN-Z-04008-7:2002 - "Air purity protection -- Sampling methods -- Principles of air sampling in work place and interpretation of results"
- PN-Z-04108-6:2006 „Air purity protection -- Determination of mineral oil (liquid phase aerosol) in work places by absorption spectrometry method in ultra-violet ".
-PN-Z-04108-5:2006 „Air purity protection -- Tests for content of oils -- Determination of mineral oil (liquid phase of aerosol) in work places by absorption spectrometry method in infra-red"


## Appropriate engineering controls:

General ventilation and/or local fume hood in order to keep concentration of the product below the exposure limits. Local fume hood is preferred, as it enables emission control at source and prevents spreading throughout the working area.

## Eye/face protection:

Use tight safety glasses (goggles) in the case of prolonged exposure or when splashing the liquid to the eye is possible. It is recommended to equip the workplace with a water shower for eyes flushing.
Skin protection:
Wear impermeable, oil resistant gloves (e.g. perbutane, viton, butyl rubber). In case of short term contact use protective gloves of effectiveness level 2 and breakthrough time $>30 \mathrm{~min}$. In case of prolonged contact use protective gloves of effectiveness level 6 and breakthrough time $>480 \mathrm{~min}$. It is recommended to use protective clothes and oil-resistant, anti-slippery shoes.

## Respiratory protection:

Not required under normal conditions of use. In the case of exceeding the acceptable limits or inadequate ventilation use the approved respirator equipped with a suitable filter or filter-absorber.

## Thermal hazards:

 Not applicable.
## Environmental exposure controls:

Consider using precautionary measures in order to protect the area around storage tanks.

## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

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

a) Appearance
b) Odour
c) Odour threshold
d) pH
e) Melting point/freezing point
f) Initial boiling point and boiling range
g) Flash point
h) Evaporation rate
i) Flammability (solid, gas)
j) Upper/lower flammability or explosive limits
k) Vapour pressure
I) Vapour density
m) Relative density
: Liquid; colour: light yellow to amber
: typical for oil
: No data available
: Not applicable
: $\leq-27^{\circ} \mathrm{C}$
: no data available
: > $190^{\circ} \mathrm{C}$
: no data available
: Not applicable
: no data available
: no data available
: no data available
: approx. $0,88 \mathrm{~g} / \mathrm{cm}^{3}$
: Insoluble in water. Soluble in hydrocarbon solvents.
: no data available
: no data available
: no data available
: $14,5-18 \mathrm{~mm}^{2} / \mathrm{s}$ at $100^{\circ} \mathrm{C}$
: no data available
: no data available

### 9.2. Other information

 None
## SECTION 10. STABILITY AND REACTIVITY

10.1. Reactivity

Product is not reactive.
10.2. Chemical stability

Product is stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.
10.3. Possibility of hazardous reactions

Not known.

### 10.4. Conditions to avoid

High temperature, open flame and other ignition sources.
10.5. Incompatible materials

Strong oxidizers.
10.6. Hazardous decomposition products

Not known.

## SECTION 11. TOXICOLOGICAL INFORMATION

### 11.1 Information on toxicological effects

## Acute toxicity:

Data for base oil:
LD50: $>5000 \mathrm{mg} / \mathrm{kg}$ (oral, rat)
LC50: > $5.53 \mathrm{mg} / \mathrm{l}$ (inhalation, rat)
LD50: $>5000 \mathrm{mg} / \mathrm{kg}$ (skin, rabbit)

## Skin corrosion/irritation:

Prolonged contact with a product may cause skin irritation.
Serious eye damage/irritation:
Irritant to eyes.
Respiratory or skin sensitisation:
May cause allergic reaction to skin.

## Germ cell mutagenicity:

Not applicable.

## Carcinogenicity:

Classification criteria have not been met based on the available data. Based on L Note the substances included in the mixture are not classified as carcinogenic (DMSO extract content (according to IP 346) < 3\%).

## Reproductive toxicity:

Not applicable.

## STOT-single exposure:

Accidental ingestion may cause gastric disturbances (nausea, vomiting, stomach pain);

## STOT-repeated exposure:

Repetitive or prolonged exposure may cause drying, cracking or chronic inflammation of the skin. May cause irritation to respiratory tract when present in form of oil mist or vapors at high temperatures (above $60^{\circ} \mathrm{C}$ ).

## SECTION 12. ECOLOGICAL INFORMATION

### 12.1. Toxicity

Toxic to aquatic organisms with long lasting effects.

### 12.2. Persistence and degradability

 Limited level of biodegradability.
### 12.3. Bioaccumulative potential

No data available.

### 12.4. Mobility in soil

The product may be hazardous to the environment in case of unsuitable use or in emergency situations - product penetrates into soil and causes contamination of ground water.

### 12.5. Results of PBT and vPvB assessment

The product does not meet the PBT and vPvB criteria set out in Annex XIII to the REACH Regulation.

### 12.6. Other adverse effects

The product is insoluble in water and spreads over its surface forming a light film.

## SECTION 13. DISPOSAL CONSIDERATIONS

### 13.1. Waste treatment methods

Waste code: $\mathbf{1 3 0 2 0 5 *}$ mineral-based non-chlorinated engine gear and lubricating oils.
NOTE: Since waste code is assigned based on the source of origin, the end user should define the obtained wastes and assign a proper code, taking into consideration specific conditions of use, in accordance with applicable regulations.
Soaked clothes, papers or other organic materials should be collected and utilised in an controlled way. Do not dispose to sewer. Avoid contamination of surface and ground waters. Consider reuse. Waste product should be recovered or utilised at professional, approved furnaces or waste recycling/neutralization facilities, in accordance with applicable regulations.
Recovery / recycling / utilisation of package wastes should be performed according to the applicable regulations. NOTE: Only completely emptied and cleaned packages may be returned for recycling. Use services of authorised companies.
The Act of 14 December 2012 on wastes (Dz.U. of year 2013, item 21)
The Act of 11 May 2001 on packages and package wastes (Dz.U. No. 63, item 638 with amendments)
Regulation of the Minister of Environment of 27 September 2001, on wastes catalogue (Dz. U. No.112, item 1206 with amendments)

## SECTION 14. TRANSPORT INFORMATION



The product is subjected to transport regulations on hazardous goods included in ADR
(road transport), RID (rail transport), IMDG (marine transport) and ICAO/IATA (air transport).
14.1. UN number

### 14.2. UN proper shipping name

### 14.3. Transport hazard class(es)

### 14.4. Packing group

14.5. Environmental hazards
14.6. Special precautions for user
14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

UN 3082
ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, NOS (contains: (Z) -octadec-9phenylamine, amine salt of phosphoric acid esters)
9
90
No 9
III
Substance hazardous to environment
None
Not applicable

## SECTION 15. REGULATORY INFORMATION

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

Act of 25 February 2011 on chemicals and their mixtures (Journal of Laws of 2011 No. 63 item 322)
Regulation of the Minister of Health of 20 April 2012on labelling packaging of dangerous substances and dangerous mixtures and some mixtures (Journal of Laws 12, item 445)
Regulation (EC) No. 1907/2006 of the European Parliament of 18 December 2006 on registration, evaluation and authorisation of chemicals (REACH) and establishing the European Chemicals Agency, amending Directive No.1999/45/WE and repealing regulation of the Council (EEC) No. 793/93 and regulation of the Commission (EC) No. 1488/94, as well as the Council Directive No. 76/769/EEC and Commission Directive No. 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC (correction Journal of Laws of 29 May 2007 as amended) Regulation of the Commission (EC) No. 453/2010 of 20 May 2010 amending regulation (EC) No. 1907/2006 of the European Parliament and the Council of 18 December 2006 on registration, evaluation and authorisation of chemicals (REACH) (Journal of Laws L 133 of 31 May 2010)
Regulation of the European Parliament and the Council (EC) No. 1272/2008 of 16 December 2008 on classification, labelling and packing substances and mixtures, amending and repealing directives 67/548/EEC and 1999/45/EC and amending regulation (EC) No. 1907/2006 (Journal of Laws No. 353 of 31 December 2008 as amended)
Regulation of the Minister of Health of 2 September 2003 on criteria and methods of classifying substances and chemical preparations (Journal of Laws of 2003, No. 171, item 1666; of 2004 No. 243, item 2440; of 2007 No. 174, item 1222; of 2009 No. 43, item 353)
Regulation of the Minister of Health of 20 April 2005 on tests and measurements of factors harmful to life in the working environment (Journal of Laws of 2005, No. 73, item 645; of 2007 Journal of Laws No. 241, item 1772) Regulation of the Minister of Economy of 21 December 2005 on essential requirements for personal protection (Journal of Laws of 2005 No. 259, item 2173)
Regulation of the Minister of Health and Social Care of 30 May 1996 on medical examination of employees, scope of preventive health care and medical certificates issued for purposes stipulated in the Labour Code (Journal of Laws of 1996, No. 69, item 332; of 1997 No. 60, item 375; of 1998 No. 159, item 1057; of 2001 No. 37, item 451; No. 128, item 1405)
Regulation of the Minister of Health and Social Policy of 26 September 1997 on general occupational health and safety regulations (consolidated text, Journal of Laws of 2003 No. 169, item 1650; of 2007 No. 49, item 330; of 2008 No. 108, item 690)
Regulation of the Minister of Health of 30 December 2004 on occupational health and safety related to the presence of chemical agents in the workplace (Journal of Laws of 2005 No. 11, item 86; of 2008 No. 203, item 1275)

Act of 24 August 1991 on fire protection (consolidated text, appendix to the Journal of Laws of 2002 No. 147 item 1229; of 2003 No. 52, item 452; of 2004 No. 96, item 959; of 2005 No. 100, item 835 and 836; of 2006 No. 191, item 1410; of 2007 No. 89, item 590; of 2008 No. 163, item 1015; of 2009 No. 11, item 59) European Agreement concerning the international carriage of dangerous goods by road (ADR), concluded in Geneva on 30 September 1957, as amended, effective as of the date of entry into force for the Polish Republic, proclaimed in the right way (Dz. U. of 2011. No 110, item 641);
Act of 19 August 2011 on the carriage of dangerous goods (Dz. U. of 2011, No 227, item 1367).

### 15.2. Chemical safety assessment

Chemical safety assessment is not required for a mixture.

## SECTION 16. OTHER INFORMATION

## Changes made in the safety data sheet during revision:

Changes in sections: 1-16

## Legend to abbreviations and acronyms used in the safety data sheet:

TLV-TWA Threshold Limit Value
TLV-STEL Threshold Limit Value, Short Term Exposure Limit
TLV-C Ceiling exposure limit
$\mathrm{vPvB} \quad$ Very persistent and very bioaccumulative (substance)
PBT Persistent, bioaccumulative and toxic (substance)
PNEC Predicted No Effect Concentration
DNEL Derived No Effect Levels
$\mathrm{LD}_{50}$ Lethal Dose $50 \%$, dose required to kill half the members of a tested population after a specified test duration
$\mathrm{LC}_{50}$ Lethal Concentration, 50 dose required to kill half the members of a tested population after a specified test duration
$E C_{x} \quad X$ \% maximal effective concentration, concentration which induces a response halfway between the baseline and maximum after some specified exposure time
LOEC Lowest Observed Effect Concentration
NOEL No Observed Effect Concentration
RID The International Rule for Transport of Dangerous Substances by Railway
ADR The European Agreement concerning the International Carriage of Dangerous Goods by Road
IMDG The International Maritime Dangerous Goods
IATA The International Air Transport Association
UVCB Unknown or Variable composition, Complex reaction or Biological materials

## Literature references and sources for data:

Regulations/legislations mentioned in sections 2 - 15 of safety data sheet.
Chemical safety report for mixture ingredients.

## List of relevant R phrases, hazard statements, safety phrases and/or precautionary statements, which are not written out in full under Sections 2 to 15:

## The list of applicable $\mathbf{H}$-phrases

H226 - Flammable liquid and vapour.
H302 - Harmful if swallowed.
H304 - May be fatal if swallowed and enters airways
H314 - Causes severe skin burns and eye damage
H315-Causes skin irritation.
H317 - May cause an allergic skin reaction.
H318-Causes serious eye damage.
H335 - May cause respiratory irritation.
H373 - May cause damage to organs through prolonged or repeated exposure
H400 - Very toxic to aquatic life.
H410 - Very toxic to aquatic life with long lasting effects.
H411 - Toxic to aquatic life with long lasting effects.
H412-Harmful to aquatic life with long lasting effects.

## The list of applicable CLP classification phrases

Flam. Liq. 3 - Flammable liquid, Cat. 3.
Aquatic Acute 1 - Hazardous to aquatic environment, cat. 1 (acute)
Aquatic Chronic 1 -Hazardous to aquatic environment, cat. 1 (chronic)
Aquatic Chronic 2 - Hazardous to aquatic environment, cat. 2 (chronic)
Aquatic Chronic 3 - Hazardous to aquatic environment, cat. 3 (chronic)
Acute Tox. 4 - Acute, Cat. 4
Eye Dam. 1 - Serious eye damage / eye irritation, cat. 1
Skin Irrit. 2 - corrosion / irritation, cat. 2
Skin Corr. 1B - corrosion / irritation, cat. 1B
Skin Sens. 1 - Skin sensitization, Cat. 1
Skin Sens. 1B - Skin sensitization, cat. 1B
Asp.Tox. 1 - Aspiration hazard, Cat. 1
STOT RE2- organ toxicity Target (repeated exposure) cat. 2
STOT SE3- organ toxicity Target (single exposure), category 3

## The list of applicable R-phrases in Section 3

R22- Harmful if swallowed.
R43 - May cause sensitization by skin contact.
R38 - Irritating to the skin.
R41- Risk of serious damage to eyes.
R34 - Causes burns.
R37- Irritating to respiratory system
R48 / 22 - Harmful if swallowed; danger of serious damage to health by prolonged exposure
R50 / 53 - Very toxic to aquatic organisms; may cause long-term adverse effects in the aquatic environment.
R51 / 53 - Toxic to aquatic organisms. May cause long-term adverse effects in the aquatic environment.
R52 / 53 - Harmful to aquatic organisms. May cause long-term adverse effects in the aquatic environment.

## DSD/DSP classification

Xi - Irritant
Xn - Harmful
C - Corrosive
N - Hazardous to environment

## Advice on any training appropriate for workers to ensure protection of human health and the environment:

Workers that use the product should be trained and informed about health hazards, personal protection, accident preventive actions, rescue actions, etc.
MSDS is not a quality certificate for the product. Information provided herein serves only as guidelines for safe handling during transport, distribution, use and storage. Persons handling the product should be informed about risks and precautionary measures. This information applies only to specific material designated and may not be suitable for such material used in combination with any other materials or in any other manner not described in this document. The user is obliged to follow all applicable standards and regulations and is also responsible for inappropriate use of information contained in this sheet or inappropriate use of the product. In case of special use to ensure safe work, exposure should be re-estimated, appropriate procedure and training programs should be developed.

