SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier

Product name

MARA EVOLUTION LL 5W-30

UFI:

2M5R-1C0Y-D00T-KCRU

https://my.chemius.net/p/96p9G8/en/pd/en

1.2 Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses

Motor oil.

Uses advised against

No information.

1.3 Details of the supplier of the safety data sheet

Supplier

Mapetrol d.o.o.
Linhartova ulica 17a
2000 Maribor, Slovenia
+38622302880
lab@mapetrol.si

1.4 Emergency Telephone Number

Emergency

111

Supplier

+38622302880

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 (CLP)

Eye Irrit. 2; H319 Causes serious eye irritation.

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008 (CLP)



Signal word: WARNING

H319 Causes serious eye irritation.
EUH208 Contains benzenesulfonic acid, mono-C16-24-alkyl derivatives, calcium salts. May produce an allergic reaction.
P102 Keep out of reach of children.
P264 Wash hands thoroughly after handling.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313 If eye irritation persists: Get medical advice/attention.

2.3 Other hazards

PBT/vPvB

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Endocrine disrupting properties

The mixture does not contain substances that are included in the list of substances with endocrine disrupting properties established in accordance with Article 59 of the REACH Regulation, in a concentration ≥ 0.1 w/w %. The mixture does not contain substances identified as substances with endocrine disrupting properties according to the criteria of Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605, in a concentration ≥ 0.1 w/w %.

Additional information

The mixture is not flammable, but is combustible.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

For mixtures see 3.2.

3.2 Mixtures

Name	CAS EC Index REACH	%	Classification according to Regulation (EC) No 1272/2008 (CLP)	Specific Concentration Limits	Notes for substances
distillates (petroleum), hydrotreated heavy paraffinic	64742-54-7 265-157-1 649-467-00-8	<90	/	/	L
Distillates (petroleum), solvent-dewaxed heavy paraffinic	64742-65-0 265-169-7 649-474-00-6	<9	/	/	L
Distillates (petroleum), hydrotreated heavy naphthenic	64742-52-5 265-155-0 649-465-00-7	<5	/	/	L
distillates (petroleum), solvent-dewaxed light paraffinic	64742-56-9 265-159-2 649-469-00-9	<5	Asp. Tox. 1; H304	/	L

Name	CAS EC Index REACH	%	Classification according to Regulation (EC) No 1272/2008 (CLP)	Specific Concentration Limits	Notes for substances
phosphorodithioic acid, mixed O,O-bis (2-ethylhexyl and iso-Bu and iso-Pr) esters, zinc salts	85940-28-9 288-917-4 -	0.4-<1.5	Skin Irrit. 2; H315 Eye Dam. 1; H318 Aquatic Chronic 2; H411	/	/
benzenesulfonic acid, mono-C16-24-alkyl derivatives, calcium salts	70024-69-0 274-263-7 - 01-2119492616-28	0.8-<1.5	Skin Sens. 1B; H317	Skin Sens. 1B; H317; C ≥ 10%	/

Notes for substances

L	The classification as a carcinogen need not apply if it can be shown that the substance contains less than 3 % DMSO extract as measured by IP 346 "Determination of polycyclic aromatics in unused lubricating base oils and asphaltene free petroleum fractions — Dimethyl sulphoxide extraction refractive index method", Institute of Petroleum, London. This note applies only to certain complex oil-derived substances in Part 3.

Product description

Product containing mineral oil with less than 3 % DMSO extract as measured by IP 346.

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures

General notes

When in doubt or if feeling unwell seek medical assistance. Show the safety data sheet and label to the physician.

Following inhalation

Remove patient to fresh air - move out of dangerous area. Victim should rest in a warm place. If symptoms develop and persist, seek medical attention. In case of unconsciousness bring patient into stable side position and seek medical attention. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Seek medical help immediately.

Following skin contact

Immediately remove contaminated clothing. Wash body parts that have come into contact with the product with water and mild soap. If symptoms develop and persist, seek medical attention. Wash contaminated clothes and shoes before reuse.

Following eye contact

Immediately flush eyes with running water, keeping eyelids apart. Remove contact lenses, if present and easy to do. Continue rinsing. If irritation persists, seek professional medical attention. Avoid strong water jet - risk of cornea damage.

Following ingestion

Do not induce vomiting! Immediately consult a doctor. If vomiting occurs, the patient should hold the head lower than the hips, because it reduces the possibility of aspiration. Rinse mouth and drink plenty of water (only if the person is conscious). Do not in any case administer milk, vegetable or animal fat. Do not drink alcohol. Never give anything by mouth to an unconscious person. If you experience the following delayed signs or symptoms within 6 hours it is necessary to seek medical help: body temperature higher than 38.3 °C, difficulty breathing, tightness in the chest, recurrent cough or wheezing.

4.2 Most important symptoms and effects, both acute and delayed

Following inhalation

Excessive exposure to spray mist, fog, or vapours may cause respiratory irritation.

Following skin contact

Repeated or prolonged contact with the product may lead to removal of natural fats from the skin and non-allergic contact dermatitis. Contact with skin may cause irritation (redness, itching). May cause sensitisation by skin contact (itching, redness, rashes).

Following eye contact
Causes severe eye irritation. Redness, tearing, pain.

Following ingestion
May cause nausea/vomiting and diarrhea. May cause abdominal discomfort. Aspiration into lungs on ingestion or vomiting may cause broncopneumonia or pulmonary oedema. Aspiration into the lungs causes coughing, shortness of breath and may lead to chemical pneumonia. If material enters lungs, signs and symptoms may include coughing, choking, wheezing, difficulty in breathing, chest congestion, shortness of breath, and/or fever.

4.3 Indication of any immediate medical attention and special treatment needed
Treat symptomatically. Because of the risk of aspiration, induction of vomiting and gastric lavage should be avoided. Show the safety data sheet and label to the physician.

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media
Suitable extinguishing media
Carbon dioxide. Dry chemical powder. Alcohol resistant foam. Small fire:
Sand. Earth.

Unsuitable extinguishing media
Full water jet.

5.2 Special hazards arising from the substance or mixture
Hazardous combustion products
In case of a fire toxic gases can be generated; do not inhale gases/smoke. In the event of fire the following can be generated: carbon monoxide (CO), carbon dioxide (CO_2). Smoke. Thermal decomposition products of higher hydrocarbons.

5.3 Advice for firefighters
Protective actions
In case of fire evacuate the area. In case of fire or heating do not breathe fumes/vapours. No action shall be taken involving any personal risk or without suitable training. Cool containers at risk with water spray. If possible remove containers from endangered area.

Special protective equipment for fire-fighters
Firefighters should wear appropriate protective clothing for firefighters (including helmets, protective boots and gloves) (BS EN 469) and self-contained breathing apparatus (SCBA) with a full face-piece (BS EN 137).

Additional information
Contaminated firefighting water and fire residues must be disposed of in accordance with the local regulations.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures
For non-emergency personnel

Protective equipment
Use personal protective equipment (Section 8).

Precautionary measures
Ensure adequate ventilation. Keep away from sources of ignition and/or heat; No smoking!

Emergency procedures
Evacuate the danger zone. Prevent access to unprotected personnel. Prevent access to unauthorised personnel. No action shall be taken involving any personal risk or without suitable training. Avoid contact with skin, eyes and clothing. Do not breathe vapour or mist.

For emergency responders
Use personal protective equipment. High risk of slipping due to leakage/spillage of product.

6.2 Environmental precautions

Do not allow product to reach water/drains/sewage systems or permeable soil. If accidental large entry into water or ground occurs, inform responsible authorities.

6.3 Methods and material for containment and cleaning up

For containment

Stem the spill if this does not pose risks.

For cleaning up

In case of bigger spill, dam the spillage, pump the liquid into appropriate labelled containers, absorb the residue with absorbent material and dispose of according to local regulations. Absorb product (with inert material), collect it in special container and dispose it to a licensed hazardous-waste disposal contractor. Clean contaminated area with water and detergent. Dispose in accordance with applicable regulations (see Section 13).

Other information

No information.

6.4 Reference to other sections

See also sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

Protective measures

Measures to prevent fire

Ensure adequate ventilation.

Measures to prevent aerosol and dust generation

Use general or local exhaust ventilation to prevent inhaling vapours and aerosols.

Measures to protect the environment

No information.

Other measures

No information.

Advice on general occupational hygiene

Use good personal hygiene practices – wash hands at breaks and when done working with material. Do not eat, drink or smoke while working. Avoid contact with skin, eyes and clothes. Do not breathe vapours/mist. Prevent concentrations of vapors above the limit values permitted at the workplace. Remove contaminated clothes and wash them before reuse. Before entering areas where food is eaten, remove contaminated clothing and protective equipment. Wear suitable protective equipment; see Section 8. Refer to instructions on label and regulations for safety and health at work.

7.2 Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions

Store in accordance with local regulations. Keep in well closed containers. Keep in a cool, dry and well ventilated place. Keep away from food, drink and animal feeding stuffs. Protect against heat and direct sunlight. Keep away from sources of ignition - no smoking. Keep away from moisture and water. Keep away from strong oxidising agents.

Packaging materials

The original container of producer.

Requirements for storage rooms and vessels

Close opened containers after use. Put the containers upright to prevent from leaking. Do not store in unlabelled containers.

Storage temperature

No information.

Storage class

No information.

Further information on storage conditions

No information.

7.3 Specific end use(s)

Recommendations

No information.

Industrial sector specific solutions
No information.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Occupational Exposure limit values

Name	mg/m³	ml/m³	Short-term value mg/m³	Short-term value ml/m³	Remark	Biological Tolerance Values
Cycloalkanes ≥C7	800	/	/	/	/	/
Normal and branched chain alkanes ≥C7	1200	/	/	/	/	/

Information on monitoring procedures
BS EN 14042:2003 Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents. BS EN 689:2018 Workplace exposure. Measurement of exposure by inhalation to chemical agents. Strategy for testing compliance with occupational exposure limit values. BS EN 482:2021 Workplace exposure. Procedures for the determination of the concentration of chemical agents. Basic performance requirements.

DNEL/DMEL values

For product
No information.

For components

Name	Type	Exposure route	exp. frequency	Remark	Value
distillates (petroleum), hydrotreated heavy paraffinic	Worker	inhalation	long term systemic effects	/	2.73 mg/m³
distillates (petroleum), hydrotreated heavy paraffinic	Worker	inhalation	long term local effects	/	5.58 mg/m³
distillates (petroleum), hydrotreated heavy paraffinic	Worker	dermal	long term systemic effects	/	0.97 mg/kg bw/day
distillates (petroleum), hydrotreated heavy paraffinic	Consumer	oral	long term systemic effects	/	0.74 mg/kg bw/day

PNEC values

For product
No information.

For components

Name	Exposure route	Remark	Value
distillates (petroleum), hydrotreated heavy paraffinic	secondary poisoning	food	9.33 mg/kg

8.2 Exposure controls

Appropriate engineering control

Substance/mixture related measures to prevent exposure during identified uses
Handle in accordance with good industrial hygiene and safety practice. Use good personal hygiene practices – wash hands at breaks and when done working with material. Do not eat, drink or smoke while working. Avoid contact with skin, eyes and clothes. Do not breathe vapours/aerosols. Do not carry cleaning cloths impregnated with the product in trouser pockets.

Structural measures to prevent exposure

No information.

Organisational measures to prevent exposure

Remove all contaminated clothes immediately and wash them before reuse. Keep eyewash bottles or personal eyewash units and emergency showers available.

Technical measures to prevent exposure

The use of adequate technical equipment must always take priority over personal protective equipment. Provide good ventilation and local exhaust in areas with increased concentration. Keep away from food, drink and animal feeding stuffs.

Personal protective equipment

Eye and face protection

If there is risk of splashing into eyes, wear safety glasses with side shields (BS EN ISO 16321-1:2022).

Hand protection

Protective gloves (EN ISO 374-1:2016). Observe the manufacturer's instructions regarding the use, storage, maintenance and replacement of gloves. In case of damage or at the first signs of wear and tear, change the gloves immediately. 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. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation.

Appropriate materials

Material	Thickness	Penetration Time	Remark
viton	/	/	/
Butyl rubber	/	/	/
Nitrile	/	/	/

Skin protection

Cotton protective clothing and shoes that cover the entire foot (BS EN ISO 20345:2022+A1:2024). Protective work clothing resistant to liquid chemicals (BS EN 14605:2005+A1:2009). Choose body protection according to the activity and possible exposure.

Respiratory protection

Not needed under normal use and adequate ventilation. At elevated concentrations of vapours/aerosols in the air wear a mask (BS EN 140) with filter A2-P2 (BS EN 14387). 'High/elevated concentrations' means that the occupational exposure limit values have been exceeded. For dust/gas/ vapor concentrations above the applicable filter limit, in case of oxygen concentrations below 17% or in vague conditions, autonomous self-contained breathing apparatus should be used, according to standard BS EN 137, BS EN 138.

Thermal hazards

No information.

Environmental exposure controls

Substance/mixture related measures to prevent exposure

No information.

Instruction measures to prevent exposure

No information.

Organisational measures to prevent exposure

No information.

Technical measures to prevent exposure

Do not allow product to reach drains, sewage systems or ground water.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Important health, safety and environmental information

Physical state	liquid
Shape	No information.
Colour	yellow

Odour	No information.
Odour threshold	No information.
Melting/freezing point or softening point	No information.
Boiling point or initial boiling point and boiling range	No information.
Flammability	No information.
Lower and upper explosion limit	No information.
Flash point	220 — 228 °C
Auto-ignition temperature	No information.
Decomposition temperature	No information.
pH	Substance/mixture is non-soluble (in water).
Viscosity (kinematic)	57.9 — 63.4 mm^2/s at 40 °C 10.1 — 10.7 mm^2/s at 100 °C
Solubility	No information.
Partition coefficient n-octanol/water (log value)	No information.
Vapour pressure	No information.
Density / weight	No information.
Relative vapour/gas density	No information.
Particle characteristics	No information.

9.2 Other information

Information with regard to physical hazard classes

No information.

Other safety characteristics

Pour point	-39 °C

Other information

Viscosity index: 160-163.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity

Stable under normal conditions.

10.2 Chemical stability

Product is stable under normal conditions of use, recommended handling and storage conditions.

10.3 Possibility of hazardous reactions

No dangerous reactions occur under normal conditions of storage and use.

10.4 Conditions to avoid

Protect from heat, direct sunlight, open fire, sparks. Avoid contact with incompatible materials.

10.5 Incompatible materials

Strong oxidising agents.

10.6 Hazardous decomposition products

Under normal use conditions no hazardous decomposition products are expected. In case of fire/explosion vapours/gases that pose a health hazard are released.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

(a) Acute toxicity

For components

Name	Exposure route	Type	Species	Time	Value	Method	Remark
distillates (petroleum), hydrotreated heavy paraffinic	oral	LD_{50}	rat	/	> 5000 mg/kg	/	/
distillates (petroleum), hydrotreated heavy paraffinic	dermal	LD_{50}	rabbit	/	> 2000 mg/kg	/	/
distillates (petroleum), hydrotreated heavy paraffinic	inhalation	LC_{50}	rat	4 days	> 5.53 mg/l	/	/
Distillates (petroleum), solvent-dewaxed heavy paraffinic	oral	LD_{50}	rat	/	> 5000 mg/kg bw	/	/
Distillates (petroleum), solvent-dewaxed heavy paraffinic	dermal	LD_{50}	rabbit	/	> 5000 mg/kg	/	/
Distillates (petroleum), solvent-dewaxed heavy paraffinic	inhalation	LC_{50}	rat	/	> 5.53 mg/L/4h	/	/
distillates (petroleum), solvent-dewaxed light paraffinic	oral	LD_{50}	rat	/	> 5000 mg/kg	/	/
distillates (petroleum), solvent-dewaxed light paraffinic	dermal	LD_{50}	rabbit	/	> 2000 mg/kg	/	/
distillates (petroleum), solvent-dewaxed light paraffinic	inhalation	LC_{50}	rat	4 h	> 5.53 mg/l	/	/

Additional information

The product is not classified as acutely toxic.

(b) Skin corrosion/irritation

No information.

Additional information

The product is not classified as irritating to the skin.

(c) Serious eye damage/irritation

No information.

Additional information

Causes serious eye irritation.

(d) Respiratory or skin sensitisation

No information.

Additional information

The product is not classified as sensitising.
It contains at least one ingredient that can cause sensitisation. Can cause allergic reaction.

(e) (Germ cell) mutagenicity

No information.

(f) Carcinogenicity

No information.

(g) Reproductive toxicity

No information.

Summary of evaluation of the CMR properties
The product is not classified as carcinogenic, mutagenic or toxic for reproduction.

(h) STOT-single exposure

No information.

Additional information
STOT SE (single exposure): Not classified.

(i) STOT-repeated exposure

No information.

Additional information
STOT RE (repeated exposure): Not classified.

(j) Aspiration hazard

No information.

Additional information
Aspiration hazard: Not classified.

Symptoms related to the physical, chemical and toxicological characteristics

No information.

Interactive effects

No information.

11.2 Information on other hazards

Endocrine disrupting properties

For product
The mixture does not contain substances that are included in the list of substances with endocrine disrupting properties established in accordance with Article 59 of the REACH Regulation, in a concentration ≥ 0.1 w/w %. The mixture does not contain substances identified as substances with endocrine disrupting properties according to the criteria of Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605, in a concentration ≥ 0.1 w/w %.

Other information

No information.

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity

Acute (short-term) toxicity

No information.

Chronic (long-term) toxicity

No information.

12.2 Persistence and degradability

Abiotic degradation, physical- and photo-chemical elimination

No information.

Biodegradation

For components

Name	Type	Rate	Time	Evaluation	Method	Remark
Distillates (petroleum), solvent-dewaxed heavy paraffinic	/	/	/	inherently biodegradable	/	/
distillates (petroleum), solvent-dewaxed light paraffinic	/	/	/	inherently biodegradable	/	/

12.3 Bioaccumulative potential

Partition coefficient n-octanol/water (log value)

For components

Name	Value	Temperature °C	pH	Concentration	Method
Distillates (petroleum), solvent-dewaxed heavy paraffinic	> 6	/	/	/	/
distillates (petroleum), solvent-dewaxed light paraffinic	> 6	/	/	/	/

Bioconcentration factor (BCF)

No information.

12.4 Mobility in soil

Known or predicted distribution to environmental compartments

No information.

Surface tension

No information.

Adsorption/Desorption

No information.

12.5 Results of PBT and vPvB assessment

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6 Endocrine disrupting properties

For product

The mixture does not contain substances that are included in the list of substances with endocrine disrupting properties established in accordance with Article 59 of the REACH Regulation, in a concentration ≥ 0.1 w/w %. The mixture does not contain substances identified as substances with endocrine disrupting properties according to the criteria of Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605, in a concentration ≥ 0.1 w/w %.

12.7 Other adverse effects

No information.

12.8 Additional information

For product

Product is not classified as hazardous for environment. Do not allow undiluted product or large quantities of it to reach ground water, water bodies or sewage system.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product / Packaging disposal

Waste chemical

The generation of waste should be avoided or minimized wherever possible. Dispose of in accordance with applicable waste disposal regulation. Dispose the product to an authorised collector/remover of waste/company performing waste recovery. Do not allow product to reach drains/sewage systems.

Waste codes / waste designations according to LoW

No information.

Packaging

Dispose of in accordance with applicable waste disposal regulation. Deliver completely emptied containers to approved waste disposal authorities. Empty containers or liners may contain product residues. Recycle, if possible.

Waste codes / waste designations according to LoW

No information.

Waste treatment-relevant information

No information.

Sewage disposal-relevant information

No information.

Other disposal recommendations

No information.

SECTION 14: TRANSPORT INFORMATION

ADR/RID	IMDG	IATA	ADN
14.1 UN number or ID number			
Not dangerous according to transport regulations.	Not dangerous according to transport regulations.	Not dangerous according to transport regulations.	Not dangerous according to transport regulations.
14.2 UN proper shipping name			
Not given/not applicable	Not given/not applicable	Not given/not applicable	Not given/not applicable
14.3 Transport hazard class(es)			
Not given/not applicable	Not given/not applicable	Not given/not applicable	Not given/not applicable
14.4 Packing group			
Not given/not applicable	Not given/not applicable	Not given/not applicable	Not given/not applicable
14.5 Environmental hazards			
NO	NO	NO	NO
14.6 Special precautions for user			
Limited quantities Not given/not applicable	Limited quantities Not given/not applicable		Limited quantities Not given/not applicable
14.7 Maritime transport in bulk according to IMO instruments			
	Not given/not applicable		

SECTION 15: REGULATORY INFORMATION

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

- Regulation (EC) No 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (including last amendment Commission Regulation (EU) 2020/878)

- Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures

Information according 2004/42/EC about limitation of emissions of volatile organic compounds (VOC-guideline)
not applicable

Ingredients according to Regulation (EC) No 648/2004 on detergents
No information.

Special instructions
No information.

15.2 Chemical Safety Assessment
No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

SECTION 16: OTHER INFORMATION

Indication of changes
No information.

Key literature references and sources for data
No information.

Abbreviations and acronyms
ATE - Acute Toxicity Estimate
ADR - Agreement concerning the International Carriage of Dangerous Goods by Road
ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
CEN - European Committee for Standardisation
C&L - Classification and Labelling
CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
CAS# - Chemical Abstracts Service number
CMR - Carcinogen, Mutagen, or Reproductive Toxicant
CSA - Chemical Safety Assessment
CSR - Chemical Safety Report
DMEL - Derived Minimal Effect Level
DNEL - Derived No Effect Level
DPD - Dangerous Preparations Directive 1999/45/EC
DSD - Dangerous Substances Directive 67/548/EEC
DU - Downstream User
EC - European Community
ECHA - European Chemicals Agency
EC-Number - EINECS and ELINCS Number (see also EINECS and ELINCS)
EEA - European Economic Area (EU + Iceland, Liechtenstein and Norway)
EEC - European Economic Community
EINECS - European Inventory of Existing Commercial Substances
ELINCS - European List of notified Chemical Substances
EN - European Standard
EQS - Environmental Quality Standard
EU - European Union
Euphrac - European Phrase Catalogue
EWC - European Waste Catalogue (replaced by LoW – see below)
GES - Generic Exposure Scenario
GHS - Globally Harmonized System
IATA - International Air Transport Association
ICAO-TI - Technical Instructions for the Safe Transport of Dangerous Goods by Air
IMDG - International Maritime Dangerous Goods
IMSBC - International Maritime Solid Bulk Cargoes
IT - Information Technology
IUCLID - International Uniform Chemical Information Database
IUPAC - International Union for Pure Applied Chemistry
JRC - Joint Research Centre

Kow - octanol-water partition coefficient
LC50 - Lethal Concentration to 50 % of a test population
LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose)
LE - Legal Entity
LoW - List of Wastes (see http://ec.europa.eu/environment/waste/framework/list.htm)
LR - Lead Registrant
M/I - Manufacturer / Importer
MS - Member States
MSDS - Material Safety Data Sheet
OC - Operational Conditions
OECD - Organization for Economic Co-operation and Development
OEL - Occupational Exposure Limit
OJ - Official Journal
OR - Only Representative
OSHA - European Agency for Safety and Health at work
PBT - Persistent, Bioaccumulative and Toxic substance
PEC - Predicted Effect Concentration
PNEC(s) - Predicted No Effect Concentration(s)
PPE - Personal Protection Equipment
(Q)SAR - Qualitative Structure Activity Relationship
REACH - Registration, Evaluation, Authorisation and Restriction of Chemicals (Regulation (EC) No 1907/2006)
RID - Regulations concerning the International Carriage of Dangerous Goods by Rail
RIP - REACH Implementation Project
RMM - Risk Management Measure
SCBA - Self-Contained Breathing Apparatus
SDS - Safety data sheet
SIEF - Substance Information Exchange Forum
SME - Small and Medium sized Enterprises
STOT - Specific Target Organ Toxicity
(STOT) RE - Repeated Exposure
(STOT) SE - Single Exposure
SVHC - Substances of Very High Concern
UN - United Nations
vPvB - Very Persistent and Very Bioaccumulative

List of relevant H phrases

H304 May be fatal if swallowed and enters airways.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.
H411 Toxic to aquatic life with long lasting effects.



- [x] Provided correct labelling of the product
- [x] Compliance with the local legislation
- [x] Provided correct classification of the product
- [x] Provided adequate transport data

© BENS Consulting | www.bens-consulting.com

The information of this SDS is based on the present state of our knowledge and meets the requirements of EU and national laws. The user's working conditions however, are beyond our knowledge and control. The product is not to be used for purposes other than those specified under section 1 without a written permission. It remains the responsibility of the user to ensure that the necessary steps are taken to meet the laws and regulations. Handling of the product may only be done by people above 18 years of age, who are satisfactorily informed of how to do the work, the hazardous

properties and necessary safety precautions. The information given in this SDS is to describe the product only in terms of health and safety requirements and should not, therefore, be construed as guaranteeing specific properties.