Safety Data Sheet
PETRONAS TUTELA AXLE 300 LS 80W-90

Revision Date: 11/5/2023
version 3

PETRONAS

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

1.1. PRODUCT IDENTIFIER

MIXTURE IDENTIFICATION:
Trade name: **PETRONAS TUTELA AXLE 300 LS 80W-90**
Trade code: 76629
Registration Number N/A

1.2. RELEVANT IDENTIFIED USES OF THE SUBSTANCE OR MIXTURE AND USES ADVISED AGAINST

RECOMMENDED USE: Lubricant for transmission system.
USES ADVISED AGAINST: This product should not be used for other purposes than those specified without the advice of an expert.

1.3. DETAILS OF THE SUPPLIER OF THE SAFETY DATA SHEET

COMPANY: PETRONAS LUBRICANTS ITALY S.P.A.
Via Santena 1
10029 Villastellone (Torino)
Tel: +39.01196131 Fax : +39.0119613313

COMPETENT PERSON FOR SAFETY DATA OF PRODUCT:
Information on the legislation compliance info-regulation.eu@pli-petronas.com

1.4. EMERGENCY TELEPHONE NUMBER

Emergency Answer Service (24h/7d):
+44 1235 239670

SECTION 2: HAZARDS IDENTIFICATION

2.1. CLASSIFICATION OF THE SUBSTANCE OR MIXTURE

Regulation (EC) n. 1272/2008 (CLP)
No specific hazards are encountered under normal product use.
Adverse physicochemical, human health and environmental effects:
No other hazards

2.2. LABEL ELEMENTS

Special Provisions:
EUH208 Contains Reaction products of 4-methyl-2- pentanol and diphosphorus pentasulfide, propoxylated, esterified with diphosphorus pentaoxide, and salted by amines, C12-14- tert-alkyl. May produce an allergic reaction.

EUH208	Contains Reaction product of 1,3,4-thiadiazolidine-2,5-dithione, formaldehyde and phenol, heptyl derivs. May produce an allergic reaction.
EUH210	Safety data sheet available on request.

Special provisions according to Annex XVII of REACH and subsequent amendments:
None

2.3. OTHER HAZARDS

PBT, vPvB or endocrine disruptor substances present in concentration >= 0,1%:

COMPONENT	IDENT. NUMB.	QUANTITY	MATERIAL PROPERTIES
Reaction product of 1,3,4-thiadiazolidine-2,5-dithione, formaldehyde and phenol, heptyl derivs	CAS: Confidential - EINECS: 939-460-0	0.1-<0.25 %	SVHC – Endocrine disruptor

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. SUBSTANCES

N.A.

3.2. MIXTURES

Severely refined mineral and/or synthetic oils, additives.

Hazardous components within the meaning of the CLP regulation and related classification:

QTY	NAME	IDENT. NUMB.	CLASSIFICATION	REGISTRATION NUMBER	MATERIAL PROPERTIES
1.5-<2.0 %	Reaction products of 4-methyl-2- pentanol and diphosphorus pentasulfide, propoxylated, esterified with diphosphorus pentaoxide, and salted by amines, C12-14- tert-alkyl	CAS: Confidential EC:931-384-6	Acute Tox. 4, H302 Eye Irrit. 2, H319 Aquatic Chronic 2, H411 Skin Sens. 1, H317 Specific Concentration Limits: C ≥ 9.39%: Skin Sens. 1 H317 C ≥ 50%: Eye Irrit. 2 H319	01-2119493620-38-XXXX	
1.0-<1.5 %	Severely refined paraffinic mineral and synthetic oils,	CAS:Mixture EC:Mixture	Asp. Tox. 1, H304, DECLL(*)		

	viscosity 40°C <=20.5 cSt (**)				
1.0-<1.5 %	Reaction Products of alcohols, C14-18, C18 unsat., esterified with phosphorus pentoxide and salted with amines, C12-14,-tert-alkyl	CAS: 1471315-74-8 EC:939-591-3	Aquatic Chronic 3, H412	01-2119978530-33-XXXX	
1.0-<1.5 %	Distillates (petroleum), solvent-dewaxed heavy paraffinic	CAS:64742-65-0 EC:265-169-7	Asp. Tox. 1, H304, DECLL(*)	01-2119471299-27-XXXX	
0.5-<0.95 %	(Z)-octadec-9-enylamine, C16-18-(even numbered, saturated and unsaturated)-alkylamines	CAS: 1213789-63-9 EC:627-034-4	Acute Tox. 4, H302; Skin Corr. 1B, H314; Eye Dam. 1, H318; STOT SE 3, H335; STOT RE 2, H373; Asp. Tox. 1, H304; Aquatic Acute 1, H400; Aquatic Chronic 1, H410, M-Chronic:10, M-Acute:10	01-2119473797-19-XXXX	
0.1-<0.25 %	Reaction product of 1,3,4-thiadiazolidine-2,5-dithione, formaldehyde and phenol, heptyl derivs	CAS: Confidential EC:939-460-0	Flam. Liq. 3, H226; Skin Irrit. 2, H315; Skin Sens. 1B, H317; Eye Dam. 1, H318; Aquatic Chronic 3, H412	01-2119971727-23-XXXX	SVHC Endocrine disruptor
70.0-<90.0 %	Not classified oils				

(*)DECLL The mineral base oils contained in this product are severely refined and contain less than 3% DMSO extract according to IP 346 method, and are therefore not classified as carcinogen according to Regulation (EC) No 1272/2008, note 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.

(**) Contains one or more among the following: CAS:64742-65-0; 64742-54-7; 64742-55-8; 101316-72-7; 72623-87-1; 64741-89-5 / EC: 265-169-7; 265-157-1; 265-158-7; 309-877-7; 276-738-4; 265-091-3 / Registration numbers: 01-2119471299-27-XXXX; 01-2119484627-25-XXXX; 01-2119487077-29-XXXX; 01-2119489969-06-XXXX; 01-2119474889-13-XXXX; 01-2119487067-30-XXXX

H-phrases and list of abbreviations: see heading 16.

SECTION 4: FIRST AID MEASURES

4.1. DESCRIPTION OF FIRST AID MEASURES

IN CASE OF SKIN CONTACT:

Remove contaminated clothes and shoes and rinse thoroughly with plenty of water and soap.

IN CASE OF EYES CONTACT:

Rinse thoroughly with plenty of water for at least 10 minutes keeping eyelids open. Remove contact

lenses if this can be done easily. Obtain medical attention in case of development and persistence of pain and redness. In case of contact with hot product, rinse thoroughly with plenty of water to dissipate heat. Obtain immediate medical attention to assess eye conditions and the correct treatment to be practiced.

IN CASE OF INGESTION:

Do not induce vomiting to avoid aspiration into the respiratory tracts. Wash out thoroughly the mouth with water. Obtain immediate medical attention.

IN CASE OF INHALATION:

Expose affected person to fresh air and obtain medical attention if necessary.

4.2. MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED

Refer to section 11.

4.3. INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED

Refer to section 4.1.

SECTION 5: FIREFIGHTING MEASURES

5.1. EXTINGUISHING MEDIA

This product has no special fire risk. In case of fire use foam, carbon dioxide, dry chemical powder and water mist.

Cool down with water the containers don't get involved in fire to avoid their possible explosion.

Avoid high pressure water jet. Use water jet only to cool down surfaces exposed to fire.

SUITABLE EXTINGUISHING MEDIA:

Water.

Carbon dioxide (CO2).

EXTINGUISHING MEDIA WHICH MUST NOT BE USED FOR SAFETY REASONS:

None in particular.

5.2. SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE

Don't breathe combustion fumes: fire can form harmful compounds.

Do not inhale explosion and combustion gases.

Burning produces heavy smoke.

HAZARDOUS COMBUSTION PRODUCTS: Oxides of carbon, compounds of sulphur, phosphorus, nitrogen and products of incomplete combustion.

5.3. ADVICE FOR FIREFIGHTERS

Use suitable breathing apparatus .

Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

Move undamaged containers from immediate hazard area if it can be done safely.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES

Avoid ingestion of product. Avoid contact with skin and eyes by wearing appropriate protective clothing. Avoid to breathe fumes and aereosols.
Surfaces on which the product has been spilled may become slippery.
Wear personal protection equipment.
See protective measures under point 7 and 8.

6.2. ENVIRONMENTAL PRECAUTIONS

Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains.
Retain contaminated washing water and dispose it.
In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.

6.3. METHODS AND MATERIAL FOR CONTAINMENT AND CLEANING UP

Avoid flame and/or spark near leak and produced waste. Do not smoke. In case of large spills dike, absorb and shovel up into suitable containers for disposal. Contain small spills with absorbent material. Put dirty material in suitable container. Dispose of dirty material in accordance with local or national regulations.

6.4. REFERENCE TO OTHER SECTIONS

See also section 8 and 13

SECTION 7: HANDLING AND STORAGE

7.1. PRECAUTIONS FOR SAFE HANDLING

Avoid ingestion. Avoid frequent and prolonged skin contact and contact with eyes. Provide adequate ventilation to avoid mist or aereosol. Don't smoke or use spare flames; avoid contact with spark or other sources of ignition. Don't work near open container to avoid high concentration of vapours. Don't eat or drink during use.

7.2. CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES

Store under cover in the original container securely closed away from heat and sources of ignition. Do not store in the open air. Assure a correct ventilation of premises and the control of possible leak. Keep out of flame or spark and avoid the accumulation of electrostatic charges. Keep out of reach of children and away from food and drink.
Storage class (TRGS 510, Germany): 10

7.3. SPECIFIC END USE(S)

Refer to the uses listed in Section 1.2.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. CONTROL PARAMETERS

OEL: oil mists - TLV/TWA (8 h) : 5 mg/m3 - TLV/STEL: 10 mg/m3

No data available

8.2. EXPOSURE CONTROLS

TECHNICAL PRECAUTIONS:

Avoid production and diffusion of mist and aerosol with utilization of localized ventilation/aspiration or other required precautions. Adopt all required precaution to avoid product immission in environment (e.g., blasting systems, catch basins, ...).

EYE PROTECTION:

Chemical goggles and face shield in case of oil splashes.

PROTECTION FOR SKIN:

Wear suitable protective clothing (for further information, refer to CEN-EN 14605); change it immediately in case of large contamination and wash it before subsequent use.

Practice reasonable personal cleanliness.

PROTECTION FOR HANDS:

Wear suitable gloves (i.e. neoprene, nitrile). Gloves should be changed when they show wear. The kind of gloves and the term of use must be decided from employer with regard to processing and to allow for DPI legislation and glove producer's indications. Wear gloves only with clean hands.

RESPIRATORY PROTECTION:

None required under normal conditions of use. Use approved full face respirator with organic vapour filter cartridge if the recommended exposure limits are exceeded.

ENVIRONMENTAL EXPOSURE CONTROLS:

Refer to technical precautions and also to sections 6.2, 6.3, 7.2, 12 and 13.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE LIQUID
APPEARANCE AND COLOUR: VISCOUS AMBER
ODOUR: NOT RELEVANT
ODOUR THRESHOLD: NOT RELEVANT
PH: N.A.
MELTING POINT / FREEZING POINT: N.A.
INITIAL BOILING POINT AND BOILING RANGE: >300 °C (572 °F) (ASTM D2887)
FLASH POINT: 168 °C (334 °F) (ASTM D93)
UPPER/LOWER FLAMMABILITY OR EXPLOSIVE LIMITS: N.A.
VAPOUR DENSITY: N.A.
VAPOUR PRESSURE: N.A.
DENSITY 0.90 G/CM3 (ASTM D4052)
SOLUBILITY IN WATER: IMMISCIBLE

SOLUBILITY IN OIL: N.A.
PARTITION COEFFICIENT (N-OCTANOL/WATER): N.A.
AUTO-IGNITION TEMPERATURE: N.A.
DECOMPOSITION TEMPERATURE: N.A.
KINEMATIC VISCOSITY AT 100°C N.A.
KINEMATIC VISCOSITY AT 40°C 136.60 CST
EXPLOSIVE PROPERTIES: N.A.
OXIDIZING PROPERTIES: N.A.
FLAMMABILITY: N.A.
VOLATILE ORGANIC COMPOUNDS - VOCS = N.A.
PARTICLE CHARACTERISTICS:
PARTICLE SIZE: N.A.

9.2. OTHER INFORMATION

FREEZING POINT N.A.
POUR POINT N.A.
DROPPING POINT N.A.
SUBSTANCE GROUPS RELEVANT PROPERTIES
MISCIBILITY: N.A.
CONDUCTIVITY: N.A.
NO OTHER RELEVANT INFORMATION

SECTION 10: STABILITY AND REACTIVITY

10.1. REACTIVITY

Read carefully all information provided in other sections of heading 10.

10.2. CHEMICAL STABILITY

The product is stable under normal conditions of use.

10.3. POSSIBILITY OF HAZARDOUS REACTIONS

Not expected under normal conditions of use.

10.4. CONDITIONS TO AVOID

This product must be kept far from heat sources. In any case, avoid exposing product to temperatures above the flash point.

10.5. INCOMPATIBLE MATERIALS

Strong oxidizing agents, hard acids and bases.

10.6. HAZARDOUS DECOMPOSITION PRODUCTS

Oxides of carbon, compounds of sulphur, phosphorus, nitrogen and hydrogen sulfide.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. INFORMATION ON HAZARD CLASSES AS DEFINED IN REGULATION (EC) NO 1272/2008

ACUTE TOXICITY:

This product is not classified in this hazard class.

While to not cause harm if accidentally swallowed in small doses, ingestion of large quantities may cause gastro-intestinal effects.

SKIN CORROSION OR IRRITATION:

This product is not classified in this hazard class, but prolonged or repeated skin contact sometimes may cause irritations and dermatitis.

SERIOUS EYE DAMAGE OR EYE IRRITATION:

This product is not classified in this hazard class, but direct contact may cause slight irritations.

RESPIRATORY SENSITIZATION:

This product is not classified in this hazard class.

SKIN SENSITIZATION:

The product contains sensitizing substances, but is not classified in this way. Product is not an irritant, but prolonged or repeated contacts may cause irritations or dermatitis.

In a sensitized individual the allergic dermatitis may not appear until after several days or weeks of frequent and prolonged contact. Therefore, even though the skin irritation potential is slight, skin contact should be avoided.

Once sensitization has occurred, exposure of the skin to very small quantities of the material may cause erythema and edema.

Reaction products of 4-methyl-2-pentanol and diphosphorus pentasulfide, propoxylated, esterified with diphosphorus pentaoxide, and salted by amines, C12-14- tert-alkyl: our supplier have tested this substance, and the results of this testing show a Specific Concentration Limits (SCL) of 9.39%; these results are also available in the toxicological studies that are part of the REACH registration dossier.

GERM CELL MUTAGENICITY:

Based on available data, the classification criteria are not met.

CARCINOGENICITY:

Based on available data, the classification criteria are not met.

REPRODUCTIVE TOXICITY:

Based on available data, the classification criteria are not met.

SPECIFIC TARGET ORGAN TOXICITY (STOT) – SINGLE EXPOSURE:

This product is not classified in this hazard class, but inhalation of mists and vapours generated at elevated temperatures sometimes may cause respiratory irritation.

SPECIFIC TARGET ORGAN TOXICITY (STOT) – REPEATED EXPOSURE:
This product is not classified in this hazard class.

ASPIRATION HAZARD:
This product is not classified in this hazard class.

11.2 INFORMATION ON OTHER HAZARDS

Endocrine disrupting properties:
N.A.

SECTION 12: ECOLOGICAL INFORMATION

12.1. TOXICITY

Eco-Toxicological Information:
This product is not classified dangerous for the environment.

List of Eco-Toxicological properties of the product

COMPONENT	ECOTOX DATA
PETRONAS TUTELA AXLE 300 LS 80W-90	b) Aquatic chronic toxicity : EC50 Daphnia > 100 mg/L OECD 211 - 21 days - Based on available data, the classification criteria are not met b) Aquatic chronic toxicity : NOEC Daphnia 100 mg/L OECD 211 - 21 days - Based on available data, the classification criteria are not met Ecotoxicity test performed on mixtures containing the additive package at treat rates used in this product. Using read-across/bridging principles, the data - provided by additive supplier - indicate that this product would not be expected to be classified under the relevant classification and labelling schemes: CLP (Reg.UE 1272/2008) and transport requirements.

List of Eco-Toxicological properties of the components

COMPONENT	IDENT. NUMB.	ECOTOX DATA
(Z)-octadec-9-enylamine, C16-18-(even numbered, saturated and unsaturated)-alkylamines	CAS: 1213789-63-9 - EINECS: 627-034-4	a) Aquatic acute toxicity : LD50 Fish Pimephales promelas = 0.11 mg/L 96h a) Aquatic acute toxicity : EC50 Daphnia = 0.011 mg/L 48h b) Aquatic chronic toxicity : NOEC Daphnia = 0.013 mg/L

N.A.

12.2. PERSISTENCE AND DEGRADABILITY

Data on biodegradability of product are not available.

12.3. BIOACCUMULATIVE POTENTIAL

Not available.

12.4. MOBILITY IN SOIL

As the dispersion in the environment may result in contamination of environmental matrix (soil, subsoil, surface water and groundwater), do not release in the environment.

12.5. RESULTS OF PBT AND VPVB ASSESSMENT

Not available.

12.6. ENDOCRINE DISRUPTING PROPERTIES

No effect known.

12.7 OTHER ADVERSE EFFECTS

No effect known.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. WASTE TREATMENT METHODS

Prevent contamination of soil, drains and surface waters. Do not discharge in sewers, tunnels or water courses. Dispose in accordance with local or national regulations via authorised person/licensed waste disposal contractor.

The used product has to be considered a special waste to be classified in accordance to Directive 2008/98/EC on waste and related legislation.

Recover if possible. In so doing, comply with the local and national regulations currently in force.

SECTION 14: TRANSPORT INFORMATION

14.1. UN NUMBER OR ID NUMBER

N/A

14.2. UN PROPER SHIPPING NAME

ADR-Shipping Name: N/A
IATA-Technical name: N/A

IMDG-Technical name: N/A

14.3. TRANSPORT HAZARD CLASS(ES)

ADR-Class: N/A
IATA-Class: N/A
IMDG-Class: N/A

14.4. PACKING GROUP

ADR-Packing Group: N/A
IATA-Packing group: N/A
IMDG-Packing group: N/A

14.5. ENVIRONMENTAL HAZARDS

Toxic Ingredients Qty: 0.00
High Toxicity Ingredients Qty: 0.00
Marine pollutant: No
Environmental Pollutant: No
IMDG-EMS: N/A

14.6. SPECIAL PRECAUTIONS FOR USER

Road and Rail (ADR-RID) :
ADR-Label: N/A
ADR - Hazard identification number: N/A
ADR-Special Provisions: N/A
ADR-Transport category (Tunnel restriction code): N/A
Air (IATA) :
IATA-Passenger Aircraft: N/A
IATA-Cargo Aircraft: N/A
IATA-Label: N/A
IATA-Subsidiary hazards: N/A
IATA-Erg: N/A
IATA-Special Provisioning: N/A
Sea (IMDG) :
IMDG-Stowage Code: N/A
IMDG-Stowage Note: N/A
IMDG-Subsidiary hazards: N/A
IMDG-Special Provisioning: N/A

14.7. MARITIME TRANSPORT IN BULK ACCORDING TO IMO INSTRUMENTS

N.A.

SECTION 15: REGULATORY INFORMATION

15.1. SAFETY, HEALTH AND ENVIRONMENTAL REGULATIONS SPECIFIC FOR THE PRODUCT IN QUESTION

Regulation (EC) No 1272/2008, with all National and European related legislations - on classification, labelling and packaging of substances and mixtures - and following adjustments to technical and scientific progress.

Regulation (EC) No 790/2009 amending, for the purposes of its adaptation to technical and scientific progress, Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures

Regulation (EC) No 1907/2006, with all National and European related legislations - concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)

Regulation (EU) No 878/2020 amending Regulation (EC) No 1907/2006 on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)

Directives 89/391/EC, 89/654/EC, 89/655/EC, 89/656/EC, 90/269/EC, 90/270/EC, 90/394/EC, 90/679/EC and all following updates, togeher with its national implementation about improvement of worker safety and health.

Directives 98/24/EC and all following updates, together with its national implementation about protection of worker safety and health against chemical agent risks.

Directive 1991/156/EC and all following updates, together with national waste legislation

EC directives and national environment protection legislation (air, water and soil)

Regulation 648/2004/EC on detergents

Directive 2012/18/UE, together with its national realization, on the control of major-accident hazards involving dangerous substances.

REGULATION (EU) N. 286/2011 (ATP 2 CLP)
REGULATION (EU) N. 618/2012 (ATP 3 CLP)
REGULATION (EU) N. 487/2013 (ATP 4 CLP)
REGULATION (EU) N. 944/2013 (ATP 5 CLP)
REGULATION (EU) N. 605/2014 (ATP 6 CLP)
REGULATION (EU) N. 2015/1221 (ATP 7 CLP)
REGULATION (EU) N. 2016/918 (ATP 8 CLP)
REGULATION (EU) N. 2016/1179 (ATP 9 CLP)
REGULATION (EU) N. 2017/776 (ATP 10 CLP)
REGULATION (EU) N. 2018/669 (ATP 11 CLP)
REGULATION (EU) N. 2021/849 (ATP 17 CLP)

RESTRICTIONS RELATED TO THE PRODUCT OR THE SUBSTANCES CONTAINED ACCORDING TO ANNEX XVII REGULATION (EC) 1907/2006 (REACH) AND SUBSEQUENT MODIFICATIONS:

Restrictions related to the product: 3, 40

Restrictions related to the substances contained: NONE

PROVISIONS RELATED TO DIRECTIVE EU 2012/18 (SEVESO III):

N.A.

REGULATION (EU) NO 649/2012 (PIC REGULATION)

No substances listed

GERMAN WATER HAZARD CLASS.

Class 2: hazardous for water.

SVHC SUBSTANCES:

Substances subject to authorisation (Annex XIV Reg. 1907/2006, REACH):

COMPONENT	IDENT. NUMB.	QUANTITY	MATERIAL PROPERTIES
Reaction product of 1,3,4-thiadiazolidine-2,5-dithione, formaldehyde and phenol, heptyl derivs	CAS: Confidential	0.1-<0.25 %	SVHC
	EINECS: 939-460-0		Endocrine disruptor

15.2. CHEMICAL SAFETY ASSESSMENT

No Chemical Safety Assessment has been carried out for the mixture.

SECTION 16: OTHER INFORMATION

Sheet complies with the criteria of Regulation (EU) No. 878/2020 as well as with Regulation (EC) No. 1272/2008 and following adjustments.

This document was prepared by a competent person who has received appropriate training.

This product must not be used in applications other than recommended without first seeking the advice of the Technical Department.

This SDS cancels and replaces any preceding release.

This product must be stored, handled and used according to correct industrial hygienic practices and in compliance with laws in force.

The information contained herein is based on the present state of our knowledge and is intended to describe our products from the point of view of safety requirements. It should not therefore be considered as any guarantee of specific properties.

Caption about heading 3, H-statements:

CODE	DESCRIPTION
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.
H319	Causes serious eye irritation.
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.

CODE	HAZARD CLASS AND HAZARD CATEGORY	DESCRIPTION

2.6/3	Flam. Liq. 3	Flammable liquid, Category 3
3.1/4/Oral	Acute Tox. 4	Acute toxicity (oral), Category 4
3.10/1	Asp. Tox. 1	Aspiration hazard, Category 1
3.2/1B	Skin Corr. 1B	Skin corrosion, Category 1B
3.2/2	Skin Irrit. 2	Skin irritation, Category 2
3.3/1	Eye Dam. 1	Serious eye damage, Category 1
3.3/2	Eye Irrit. 2	Eye irritation, Category 2
3.4.2/1	Skin Sens. 1	Skin Sensitisation, Category 1
3.4.2/1B	Skin Sens. 1B	Skin Sensitisation, Category 1B
3.8/3	STOT SE 3	Specific target organ toxicity — single exposure, Category 3
3.9/2	STOT RE 2	Specific target organ toxicity — repeated exposure, Category 2
4.1/A1	Aquatic Acute 1	Acute aquatic hazard, category 1
4.1/C1	Aquatic Chronic 1	Chronic (long term) aquatic hazard, category 1
4.1/C2	Aquatic Chronic 2	Chronic (long term) aquatic hazard, category 2
4.1/C3	Aquatic Chronic 3	Chronic (long term) aquatic hazard, category 3

Legend to abbreviations and acronyms used in the safety data sheet:
ACGIH: American Conference of Governmental Industrial Hygienists
ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.
AND: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ATE: Acute Toxicity Estimate
ATEmix: Acute toxicity Estimate (Mixtures)
BCF: Biological Concentration Factor
BEI: Biological Exposure Index
BOD: Biochemical Oxygen Demand
CAS: Chemical Abstracts Service (division of the American Chemical Society).
CAV: Poison Center
CE: European Community
CLP: Classification, Labeling, Packaging.
CMR: Carcinogenic, Mutagenic and Reprotoxic
COD: Chemical Oxygen Demand
COV: Volatile Organic Compound
CSA: Chemical Safety Assessment
CSR: Chemical Safety Report
DMEL: Derived Minimal Effect Level
DNEL: Derived No Effect Level.
DPD: Dangerous Preparations Directive
DSD: Dangerous Substances Directive
EC50: Half Maximal Effective Concentration
ECHA: European Chemicals Agency
EINECS: European Inventory of Existing Commercial Chemical Substances.
ES: Exposure Scenario

GefStoffVO: Ordinance on Hazardous Substances, Germany.
GHS: Globally Harmonized System of Classification and Labeling of Chemicals.
IARC: International Agency for Research on Cancer
IATA: International Air Transport Association.
IATA-DGR: Dangerous Goods Regulation by the "International Air Transport Association" (IATA).
IC50: half maximal inhibitory concentration
ICAO: International Civil Aviation Organization.
ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO).
IMDG: International Maritime Code for Dangerous Goods.
INCI: International Nomenclature of Cosmetic Ingredients.
IRCCS: Scientific Institute for Research, Hospitalization and Health Care
KAFH: Keep away from heat
KSt: Explosion coefficient.
LC50: Lethal concentration, for 50 percent of test population.
LD50: Lethal dose, for 50 percent of test population.
LDLo: Leathal Dose Low
N.A.: Not Applicable
N/A: Not Applicable
N/D: Not defined/ Not available
NA: Not available
NIOSH: National Institute for Occupational Safety and Health
NOAEL: No Observed Adverse Effect Level
OSHA: Occupational Safety and Health Administration.
PBT: Persistent, Bioaccumulative and Toxic
PGK: Packaging Instruction
PNEC: Predicted No Effect Concentration.
PSG: Passengers
RID: Regulation Concerning the International Transport of Dangerous Goods by Rail.
STEL: Short Term Exposure limit.
STOT: Specific Target Organ Toxicity.
TLV: Threshold Limiting Value.
TWATLV: Threshold Limit Value for the Time Weighted Average 8 hour day. (ACGIH Standard).
vPvB: Very Persistent, Very Bioaccumulative.
WGK: German Water Hazard Class.

Paragraphs modified from the previous revision:

- SECTION 1: Identification of the substance/mixture and of the company/undertaking
- SECTION 2: Hazards identification
- SECTION 8: Exposure controls/personal protection
- SECTION 10: Stability and reactivity
- SECTION 11: Toxicological information
- SECTION 14: Transport information
- SECTION 15: Regulatory information