Safety Data Sheet
TUTELA HYDROSYSTEM 46 BIO-S
Revision Date: 18/2/2026
version 5

PETRONAS

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

1.1. PRODUCT IDENTIFIER

MIXTURE IDENTIFICATION:
Trade name: **TUTELA HYDROSYSTEM 46 BIO-S**
Trade code: 77436
REGISTRATION NUMBER N/A

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

RECOMMENDED USE:
Lubricant for hydraulic 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)
Aquatic Chronic 2 Toxic to aquatic life with long lasting effects.

PBT Accumulates in the environment and living organisms including in humans.
ADVERSE PHYSICOCHEMICAL, HUMAN HEALTH AND ENVIRONMENTAL EFFECTS:
No other hazards

2.2. LABEL ELEMENTS

Regulation (EC) No 1272/2008 (CLP):

Hazard pictograms and Signal Word

Danger

Hazard statements

EUH440 Accumulates in the environment and living organisms including in humans.

H411 Toxic to aquatic life with long lasting effects.

Precautionary statements

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.

P273 Avoid release to the environment.

P391 Collect spillage.

P501 Dispose of contents/container in accordance with local/regional/national regulation.

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
O,O,O-triphenyl phosphorothioate	CAS: 597-82-0 - EINECS: 209-909-9	0.5-<0.95 %	PBT

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. SUBSTANCES

N.A.

3.2. MIXTURES

TUTELA HYDROSYSTEM 46 BIO-S

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

O,O,O-triphenyl phosphorothioate **0.5-<0.95 %**

CAS: 597-82-0 EC: 209-909-9

Registration Number: 01-2119979545-21-XXXX

Classification: Aquatic Chronic 1, H410; PBT, EUH440, M-Chronic:10

Material Properties: SVHC

Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene **0.3-<0.5 %**

CAS: 68411-46-1 EC: 270-128-1

Registration Number: 01-2119491299-23-XXXX

Classification: Repr. 2, H361f

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:

Wash with plenty of water and soap.

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

For non emergency personnel:

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.
Remove persons to safety.
See protective measures under point 7 and 8.

For emergency responders:

Wear personal protection equipment.

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.
Suitable material for taking up: absorbing material, organic, sand

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.
Suitable material for taking up: absorbing material, organic, sand
Wash with plenty of water.

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.

Avoid contact with skin and eyes, inhaltion of vapours and mists.

Exercise the greatest care when handling or opening the container.

Don't use empty container before they have been cleaned.

Before making transfer operations, assure that there aren't any incompatible material residuals in the containers.

Contamined clothing should be changed before entering eating areas.

Do not eat or drink while working.

See also section 8 for recommended protective equipment.

Advice on general occupational hygiene:

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.

None in particular.

Adequately ventilated premises.

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

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

CHEMICAL-PHYSICAL PROPERTY	VALUE	METHOD
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:	>200 °C (392 °F)	(ASTM D93)
UPPER/LOWER FLAMMABILITY OR EXPLOSIVE LIMITS:	N.A.	
VAPOUR DENSITY:	N.A.	
VAPOUR PRESSURE:	N.A.	
DENSITY	0.920 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	48.8 cSt	(ASTM D445)
EXPLOSIVE PROPERTIES	N.A.	
OXIDIZING PROPERTIES	N.A.	
FLAMMABILITY (SOLID, GAS)	N.A.	
PARTICLE CHARACTERISTICS:		
PARTICLE SIZE:	N.A.	
VOLATILE ORGANIC COMPOUNDS (VOC) CONTENT:	N.A.	

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:
This product is not classified in this hazard class.

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:
No endocrine disruptor substances present in concentration >= 0.1%

SECTION 12: ECOLOGICAL INFORMATION

12.1. TOXICITY

Eco-Toxicological Information:
Toxic to aquatic life with long lasting effects.
Accumulates in the environment and living organisms including in humans.

No endocrine disruptor substances present in concentration >= 0.1%

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

vPvB substances: None - PBT substances: None

List of Eco-Toxicological properties of the components

O,O,O-triphenyl phosphorothioate
CAS: 597-82-0 0.5-<0.95 % PBT

12.6. ENDOCRINE DISRUPTING PROPERTIES

No endocrine disruptors present at concentrations >= 0.1%

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

3082

14.2. UN PROPER SHIPPING NAME

ADR-Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (O,O,O-triphenyl phosphorothioate)

IATA-Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (O,O,O-triphenyl phosphorothioate)

IMDG-Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (O,O,O-triphenyl phosphorothioate)

14.3. TRANSPORT HAZARD CLASS(ES)

ADR-Class: 9

IATA-Class: 9

IMDG-Class: 9

14.4. PACKING GROUP

ADR-Packing Group: III

IATA-Packing group: III

IMDG-Packing group: III

14.5. ENVIRONMENTAL HAZARDS

Most important toxic component: O,O,O-triphenyl phosphorothioate

Toxic ingredients quantity: 0.09

Very toxic ingredients quantity: 0.69

Marine pollutant: Yes

Environmental Pollutant: Yes

IMDG-EMS: F-A, S-F

14.6. SPECIAL PRECAUTIONS FOR USER

Road and Rail (ADR-RID):

ADR exempt: No

ADR-Label: 9

ADR - Hazard identification number: 90

ADR-Special Provisions: 274 335 375 601

ADR-Transport category (Tunnel restriction code): 3 (-)

Air (IATA):

IATA-Passenger Aircraft: 964

IATA-Cargo Aircraft: 964

IATA-Label: 9

IATA-Subsidiary hazards: -

IATA-Erg: 9L

IATA-Special Provisions: A97 A158 A197

Sea (IMDG):

IMDG-Stowage and handling: Category A

IMDG-Segregation: -

IMDG-Subsidiary hazards: -

IMDG-Special Provisions: 274 335 969

14.7. MARITIME TRANSPORT IN BULK ACCORDING TO IMO INSTRUMENTS

N.A.

SECTION 15: REGULATORY INFORMATION

15.1 SAFETY, HEALTH AND ENVIRONMENTAL REGULATIONS/LEGISLATION SPECIFIC FOR THE SUBSTANCE OR MIXTURE

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. 2018/1480 (ATP 13 CLP)
REGULATION (EU) N. 2019/521 (ATP 12 CLP)
REGULATION (EU) N. 2020/217 (ATP 14 CLP)
REGULATION (EU) N. 2020/1182 (ATP 15 CLP)
REGULATION (EU) N. 2021/643 (ATP 16 CLP)
REGULATION (EU) N. 2021/849 (ATP 17 CLP)
REGULATION (EU) N. 2022/692 (ATP 18 CLP)
REGULATION (EU) N. 2023/707
REGULATION (EU) N. 2023/1434 (ATP 19 CLP)
REGULATION (EU) N. 2023/1435 (ATP 20 CLP)
REGULATION (EU) N. 2024/197 (ATP 21 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

Restrictions related to the substances contained: 40

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 1: slightly hazardous for water.

SVHC SUBSTANCES:

Substances in candidate list (Art. 59 Reg. 1907/2006, REACH):

COMPONENT	IDENT. NUMB.	QUANTITY	MATERIAL PROPERTIES
O,O,O-triphenyl phosphorothioate	CAS: 597-82-0 EINECS: 209-909-9	0.5-<0.95 %	SVHC

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
EUH440	Accumulates in the environment and living organisms including in humans.
H361f	Suspected of damaging fertility.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.

CODE	HAZARD CLASS AND HAZARD CATEGORY	DESCRIPTION
3.7/2	Repr. 2	Reproductive toxicity, Category 2
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
4.3/PBT	PBT	Persistent, bioaccumulative and toxic

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

CLASSIFICATION ACCORDING TO REGULATION (EC) NR. 1272/2008	CLASSIFICATION PROCEDURE
Aquatic Chronic 2, H411	Calculation method
PBT, EUH440	Calculation method

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: Lethal 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:

- Safety Data Sheet
- SECTION 1: Identification of the substance/mixture and of the company/undertaking
- SECTION 2: Hazards identification

- SECTION 5: Firefighting measures
- SECTION 6: Accidental release measures
- SECTION 7: Handling and storage
- SECTION 8: Exposure controls/personal protection
- SECTION 10: Stability and reactivity
- SECTION 11: Toxicological information
- SECTION 13: Disposal considerations
- SECTION 14: Transport information
- SECTION 15: Regulatory information