



## Informazioni sul prodotto

### Suniso GS

#### Descrizione

SUNISO GS è una gamma di lubrificanti ad elevata qualità "hydrotratted" per compressori frigoriferi, formulati per utilizzo con i refrigeranti tradizionali. Altamente stabili ed essenzialmente privi di paraffine, vantano una lunga serie di soddisfacenti prestazioni su molti tipi di macchinari. Sono approvati dalla maggior parte dei produttori sia come fluidi di primo riempimento sia come lubrificanti per la manutenzione.

#### Applicazioni

I lubrificanti SUNISO GS sono utilizzabili in qualsiasi impianto a prescindere dalla temperatura di compressori ed evaporatori. Ideali per sistemi operanti a bassa temperatura dove la temperatura dell'evaporatore non supera i  $-18^{\circ}\text{C}$ , compresi i sistemi di condizionamento e refrigerazione commerciali e domestici. Sono particolarmente adatti a refrigeranti HCFC E CFC come R-22, R-502 e R-12. Inoltre i lubrificanti SUNISO sono adatti anche a refrigeranti naturali come R-17, R-600° e R-290.

#### Prestazioni

- Stabilità chimica allunga la durata di esercizio, con conseguente riduzione dei costi di manutenzione.
- Minore formazione di depositi e guasti dovuti al bloccaggio delle valvole
- Eccellenti prestazioni alle basse temperature grazie all'assenza di depositi di paraffina che intaserebbero il sistema.
- Approvazione ottenuta da molti costruttori primari.

#### Caratteristiche tipiche:

prodotto	3	3,5	4
Densità a $15^{\circ}\text{C}$ , kg/l	0,914	0,914	0,916
Viscosità a $40^{\circ}\text{C}$ / cSt	30	43	55
Viscosità a $100^{\circ}\text{C}$ / cSt	4,4	5,3	5,9
Punto di infiammabilità $^{\circ}\text{C}$	168	175	179
Punto di scorrimento $^{\circ}\text{C}$	- 40	-37	-36
Punto di flocculazione $^{\circ}\text{C}$	- 54	-50	-48
Punto di anilina $^{\circ}\text{C}$	74	76	77
Colore ASTM D1500	1.0	1.0	1.0

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

#### 1.1. PRODUCT IDENTIFIER

IDENTIFICATION OF THE SUBSTANCE:

TRADE NAME:

**SUNISO 3 GS**

Trade code: 79872

CAS NUMBER: 64742-52-5

EC NUMBER: 265-155-0

Registration Number 01-2119467170-45-XXXX

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

RECOMMENDED USE:

Lubricant base oil.

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](mailto: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)

0 The product is not classified as dangerous according to Regulation EC 1272/2008 (CLP).

ADVERSE PHYSICOCHEMICAL, HUMAN HEALTH AND ENVIRONMENTAL EFFECTS:

No other hazards

#### 2.2. LABEL ELEMENTS

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The product is not classified as dangerous according to Regulation EC 1272/2008 (CLP).

Special provisions according to Annex XVII of REACH and subsequent amendments:

None

### 2.3. OTHER HAZARDS

No PBT Ingredients are present

## **SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS**

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### 3.1. SUBSTANCES

Substance Identifications: Distillates (petroleum) hydrotreated heavy naphthenic  
CAS number: 64742-52-5  
EC number: 265-155-0  
Registration Number 01-2119467170-45-XXXX

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.

### 3.2. MIXTURES

Severely refined mineral and/or synthetic oils, additives.

N.A.

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

## **SECTION 4: FIRST AID MEASURES**

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### 4.1. DESCRIPTION OF FIRST AID MEASURES

#### 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 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.

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Obtain immediate medical attention to assess eye conditions and the correct treatment to be practiced.

IN CASE OF SKIN CONTACT:

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

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**

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#### 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 (CO<sub>2</sub>).

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.

#### 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**

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#### 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 aerosols.

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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**

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### 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 aerosol. Don't smoke or use open 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**

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### 8.1. CONTROL PARAMETERS

OEL: oil mists - TLV/TWA (8 h) : 5 mg/m<sup>3</sup> - TLV/STEL: 10 mg/m<sup>3</sup>

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Derived No Effect Level. (DNEL)

<b>WORKER INDUSTRIAL</b>	<b>WORKER PROFESSIONAL</b>	<b>CONSUMER</b>	<b>EXPOSURE ROUTE</b>	<b>EXPOSURE FREQUENCY</b>	<b>REMARK</b>
	5.400		Human Inhalation	Long Term, local effects	mg/m <sup>3</sup>

### 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

<b>CHEMICAL-PHYSICAL PROPERTY</b>	<b>VALUE</b>	<b>METHOD</b>
PHYSICAL STATE	LIQUID	
APPEARANCE AND COLOUR	VISCOUS	
ODOUR	NOT RELEVANT	
ODOUR THRESHOLD	NOT RELEVANT	
PH	N.A.	
MELTING POINT / FREEZING POINT	N.A.	
INITIAL BOILING POINT AND BOILING RANGE	>230 °C (446 °F)	( ASTM D1120 )
FLASH POINT	>93.4 °C (200.1 °F)	( ASTM D93 )
EVAPORATION RATE	N.A.	
UPPER/LOWER FLAMMABILITY OR EXPLOSIVE LIMITS	N.A.	

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VAPOUR DENSITY	N.A.	
VAPOUR PRESSURE	N.A.	
DENSITY	0.914 g/cm <sup>3</sup>	( 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	4.4 cSt	( ASTM D445 )
KINEMATIC VISCOSITY AT 40°C	30 cSt	( ASTM D445 )
EXPLOSIVE PROPERTIES	N.A.	
OXIDIZING PROPERTIES	N.A.	
FLAMMABILITY (SOLID, GAS):	N.A.	

### 9.2. OTHER INFORMATION

#### CHEMICAL-PHYSICAL PROPERTY

CHEMICAL-PHYSICAL PROPERTY	VALUE	METHOD
SUBSTANCE GROUPS RELEVANT PROPERTIES	N.A.	
MISCIBILITY	N.A.	
CONDUCTIVITY	N.A.	
FREEZING POINT:	N.A.	
POUR POINT	N.A.	
DROPPING POINT	N.A.	

### SECTION 10: STABILITY AND REACTIVITY

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#### 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.

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### 10.6. HAZARDOUS DECOMPOSITION PRODUCTS

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

## **SECTION 11: TOXICOLOGICAL INFORMATION**

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### 11.1. INFORMATION ON TOXICOLOGICAL EFFECTS

#### SKIN CONTACT:

Prolonged or repeated skin contact sometimes may cause irritations and dermatitis.

#### EYE CONTACT:

Contact may cause slight irritations.

#### INHALATION:

Inhalation of mists and vapours generated at elevated temperatures may cause respiratory irritation.

#### INGESTION:

Unlike to cause harm if accidentally swallowed in small doses, though ingestion of large quantities may cause gastro-intestinal effects.

#### CARCINOGENICITY:

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

#### MUTAGENICITY:

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

#### TOXICITY FOR REPRODUCTION:

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

Toxicological information on main components of the mixture: No Data Available

## **SECTION 12: ECOLOGICAL INFORMATION**

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### 12.1. TOXICITY

#### Eco-Toxicological Information:

This product is not classified dangerous for the environment.

#### List of Eco-Toxicological properties of the product

No Data Available

### 12.2. PERSISTENCE AND DEGRADABILITY



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Data on biodegradability of product are not available.

N.A.

### 12.3. BIOACCUMULATIVE POTENTIAL

Not available.

### 12.4. MOBILITY IN SOIL

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

N.A.

### 12.5. RESULTS OF PBT AND VPVB ASSESSMENT

Not available.

### 12.6. OTHER ADVERSE EFFECTS

No effect known.

## **SECTION 13: DISPOSAL CONSIDERATIONS**

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### 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 is to be considered a special waste to be classified in accordance to Directive 2008/98/EC on wastes and related legislation.

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

## **SECTION 14: TRANSPORT INFORMATION**

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### 14.1. UN 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)

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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 quantity: 0.00  
Very toxic ingredients quantity: 0.00  
Marine pollutant: No  
Environmental Pollutant: No

### 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 Provisions: N/A

#### Sea (IMDG):

IMDG-Stowage Code: N/A  
IMDG-Stowage Note: N/A  
IMDG-Subsidiary hazards: N/A  
IMDG-Special Provisions: N/A  
IMDG-Page: N/A  
IMDG-Label: N/A  
IMDG-EMS: N/A  
IMDG-MFAG: N/A

### 14.7. TRANSPORT IN BULK ACCORDING TO ANNEX II OF MARPOL AND THE IBC CODE

N.A.

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### SECTION 15: REGULATORY INFORMATION

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#### 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 830/2015 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, together with its national realization, about improvement of worker safety and health

Directives 98/24/EC and all following updates, together with its national realization, 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. 1221/2015 (ATP 7 CLP)

Regulation (EU) n. 918/2016 (ATP 8 CLP)

Regulation (EU) n. 1179/2016 (ATP 9 CLP)

Regulation (EU) n. 776/2017 (ATP 10 CLP)

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

N.A.

GERMAN WATER HAZARD CLASS.

N.A.

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: None

RESTRICTIONS RELATED TO THE SUBSTANCES CONTAINED: None

VOLATILE ORGANIC COMPOUNDS - VOCS = N.A.

#### 15.2. CHEMICAL SAFETY ASSESSMENT

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

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### **SECTION 16: OTHER INFORMATION**

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Sheet complies with the criteria of Regulation (EU) No. 830/2015 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:

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

The product is not classified as dangerous according to Regulation EC 1272/2008 (CLP).

Classification procedure : 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.

ADN: 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

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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.