

**CHEMISOL ALL-IN-ONE 400 ml CHEMITOOL**

# Safety Data Sheet

According to Annex II to REACH - Regulation 2015/830

## SECTION 1. Identification of the substance/mixture and of the company/undertaking

### 1.1. Product identifier

Code: **CHC040106**  
Product name: **CHEMISOL ALL-IN-ONE 400 ml CHEMITOOL**  
UFI: **D720-30K4-X006-VWU6**

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

Intended use: **Aerosol product 10 functions in 1: unlocking, lubricating, protective, penetrating, degreasing, anti-corrosion, anti-scuff, waterproof, dissolves rust, resistant to high temperatures.**

Identified Uses	Industrial	Professional	Consumer
Consumer	-	-	✓
Industrial Use	✓	-	-
Professional Use	-	✓	-

### 1.3. Details of the supplier of the safety data sheet

Name: **LUSAVOUGA – Máquinas e Acessórios Industriais, S.A.**  
Full address: **Edifício Lusavouga  
Avenida Europa, 375  
3800-533 Cacia  
Portugal**  
tel. **+351 234 915 010**  
fax **+351 234 915 015**

e-mail address of the competent person

responsible for the Safety Data Sheet: **qualidade@lusavouga.pt**

### 1.4. Emergency telephone number

For urgent inquiries refer to: **American Association of Poison Control Centers (USA): Tel. +1 (800) 222 1222**

## SECTION 2. Hazards identification

### 2.1. Classification of the substance or mixture

The product is classified as hazardous pursuant to the provisions set forth in (EC) Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of (EU) Regulation 2015/830. Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Hazard classification and indication:

Aerosol, category 1	H222 H229	Extremely flammable aerosol. Pressurised container: may burst if heated.
Aspiration hazard, category 1	H304	May be fatal if swallowed and enters airways.

**CHEMISOL ALL-IN-ONE 400 ml CHEMITOOL****2.2. Label elements**

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:



Signal words:                      Danger

Hazard statements:

**H222**                                      Extremely flammable aerosol.  
**H229**                                      Pressurised container: may burst if heated.  
**EUH066**                                   Repeated exposure may cause skin dryness or cracking.

Precautionary statements:

**P210**                                      Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
**P251**                                      Do not pierce or burn, even after use.  
**P410+P412**                              Protect from sunlight. Do not expose to temperatures exceeding 50°C / 122°F.  
**P211**                                      Do not spray on an open flame or other ignition source.  
**P102**                                      Keep out of reach of children.

Statements on the aspiration toxicity classification were not included in the label elements, based on section 1.3.3. of Annex I to CLP.

**2.3. Other hazards**

On the basis of available data, the product does not contain any PBT or vPvB in percentage  $\geq$  than 0,1%.

**SECTION 3. Composition/information on ingredients****3.2. Mixtures**

Contains:

Identification	x = Conc. %	Classification 1272/2008 (CLP)
<b>Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, &lt;2% aromatics</b>		
CAS -	$47 \leq x < 51$	Asp. Tox. 1 H304, EUH066
EC 918-481-9		
INDEX -		

**CHEMISOL ALL-IN-ONE 400 ml CHEMITOOL**

Reg. no. 01-2119457273-39-XXXX

**Distillates (petroleum),  
hydrotreated light naphthenic**

CAS 64742-53-6

15 ≤ x &lt; 19

Asp. Tox. 1 H304, Classification note according to Annex VI to the CLP  
Regulation: L

EC 265-156-6

INDEX 649-466-00-2

Reg. no. 01-2119480375-34-XXXX

**Propane**

CAS 74-98-6

11 ≤ x &lt; 15

Flam. Gas 1A H220, Press. Gas (Liq.) H280, Classification note according to  
Annex VI to the CLP Regulation: U

EC 200-827-9

INDEX 601-003-00-5

Reg. no. 01-2119486944-21-0046

**Butane**

CAS 106-97-8

5 ≤ x &lt; 7

Flam. Gas 1A H220, Press. Gas (Liq.) H280, Classification note according to  
Annex VI to the CLP Regulation: C U

EC 203-448-7

INDEX 601-004-00-0

Reg. no. 01-2119474691-32-XXXX

**Benzenesulfonic acid, mono-C19-  
28-alkyl derivs., sodium salts**

CAS 70024-73-6

1 ≤ x &lt; 3

Aquatic Chronic 4 H413

EC 274-265-8

INDEX -

**Polytetrafluorethylene (PTFE)**

CAS 9002-84-0

1 ≤ x &lt; 3

EC 618-337-2

INDEX -

The full wording of hazard (H) phrases is given in section 16 of the sheet.

The product is an aerosol containing propellants. For the purposes of calculation of the health hazards, propellants are not considered (unless they have health hazards). The percentages indicated are inclusive of the propellants.

Percentage of propellants: 19,30 %

**SECTION 4. First aid measures****4.1. Description of first aid measures**

**EYES:** Remove contact lenses, if present. Wash immediately with plenty of water for at least 15 minutes, opening the eyelids fully. If problem persists, seek medical advice.

**SKIN:** Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention immediately. Wash contaminated clothing before using it again.

**INHALATION:** Remove to open air. If the subject stops breathing, administer artificial respiration. Get medical advice/attention immediately.

**INGESTION:** Get medical advice/attention immediately. Do not induce vomiting. Do not administer anything not explicitly authorised by a doctor.

**4.2. Most important symptoms and effects, both acute and delayed**

Specific information on symptoms and effects caused by the product are unknown.

**CHEMISOL ALL-IN-ONE 400 ml CHEMITOOL****4.3. Indication of any immediate medical attention and special treatment needed**

Information not available

**SECTION 5. Firefighting measures****5.1. Extinguishing media****SUITABLE EXTINGUISHING EQUIPMENT**

The extinguishing equipment should be of the conventional kind: carbon dioxide, foam, powder and water spray.

**UNSUITABLE EXTINGUISHING EQUIPMENT**

None in particular.

**5.2. Special hazards arising from the substance or mixture****HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE**

If overheated, aerosol cans can deform, explode and be propelled considerable distances. Put a protective helmet on before approaching the fire. Do not breathe combustion products.

**5.3. Advice for firefighters****GENERAL INFORMATION**

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear.

**SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS**

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

**SECTION 6. Accidental release measures****6.1. Personal precautions, protective equipment and emergency procedures**

Eliminate all sources of ignition (cigarettes, flames, sparks, etc.) from the leakage site. Send away individuals who are not suitably equipped. Wear protective gloves / protective clothing / eye protection / face protection.

**6.2. Environmental precautions**

Do not disperse in the environment.

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

Use inert absorbent material to soak up leaked product. Make sure the leakage site is well aired. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

**6.4. Reference to other sections**

Any information on personal protection and disposal is given in sections 8 and 13.

**SECTION 7. Handling and storage****7.1. Precautions for safe handling**

Avoid bunching of electrostatic charges. Do not spray on flames or incandescent bodies. Vapours may catch fire and an explosion may occur; vapour accumulation is therefore to be avoided by leaving windows and doors open and ensuring good cross ventilation. Do not eat, drink or smoke during use. Do not breathe spray.

## CHEMISOL ALL-IN-ONE 400 ml CHEMITOOL

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

Store in a place where adequate ventilation is ensured, away from direct sunlight at a temperature below 50°C / 122°F, away from any combustion sources.

### 7.3. Specific end use(s)

Information not available

## SECTION 8. Exposure controls/personal protection

### 8.1. Control parameters

Regulatory References:

DEU	Deutschland	TRGS 900 - Seite 1 von 69 (Fassung 29.03.2019)- Liste der Arbeitsplatzgrenzwerte und Kurzzeitwerte
ESP	España	LÍMITES DE EXPOSICIÓN PROFESIONAL PARA AGENTES QUÍMICOS EN ESPAÑA 2019 (INSST)
FRA	France	Valeurs limites d'exposition professionnelle aux agents chimiques en France. ED 984 - INRS
ITA	Italia	Decreto Legislativo 9 Aprile 2008, n.81
PRT	Portugal	Ministério da Economia e do Emprego Consolida as prescrições mínimas em matéria de protecção dos trabalhadores contra os riscos para a segurança e a saúde devido à exposição a agentes químicos no trabalho - Diário da República, 1.ª série - N.º 111 - 11 de junho de 2018
POL	Polska	ROZPORZĄDZENIE MINISTRA RODZINY, PRACY I POLITYKI SPOŁECZNEJ z dnia 12 czerwca 2018 r
GBR	United Kingdom	EH40/2005 Workplace exposure limits (Third edition, published 2018)
	TLV-ACGIH	ACGIH 2020

### Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, <2% aromatics

Predicted no-effect concentration - PNEC

Normal value for the atmosphere

NPI

### Distillates (petroleum), hydrotreated light naphthenic

Predicted no-effect concentration - PNEC

Normal value for the food chain (secondary poisoning)

9,33

mg/kg

### Health - Derived no-effect level - DNEL / DMEL

Route of exposure	Effects on consumers				Effects on workers			
	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Inhalation					5.4 mg/m <sup>3</sup> 8h			

### Propane

#### Threshold Limit Value

Type	Country	TWA/8h	STEL/15min		Remarks / Observations
		mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>	
AGW	DEU	1800	1000	7200	4000
MAK	DEU	1800	1000	7200	4000
VLA	ESP		1000		
NDS/NDSCh	POL	1800			

## CHEMISOL ALL-IN-ONE 400 ml CHEMITOOL

### Butane

#### Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
AGW	DEU	2400	1000	9600	4000	
MAK	DEU	2400	1000	9600	4000	
VLA	ESP		1000			Gases
VLEP	FRA	1900	800			
NDS/NDSch	POL	1900		3000		
WEL	GBR	1450	600	1810	750	
WEL	GBR		4			RESP
TLV-ACGIH					1000	

### Polytetrafluorethylene (PTFE)

#### Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
TLV-ACGIH		10				POLVERI

### Isobutane

#### Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
TLV-ACGIH			800			

### Distillates (petroleum), hydrotreated heavy naphthenic

#### Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks / Observations
		mg/m3	ppm	mg/m3	ppm	
VLA	ESP	5		10		
VLEP	ITA	5				INHAL
VLE	PRT	5		10		
NDS/NDSch	POL	5				

#### Predicted no-effect concentration - PNEC

Normal value for the food chain (secondary poisoning)	9,33	mg/kg
---	------	-------

#### Legend:

(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.  
 VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified.

### 8.2. Exposure controls

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.

When choosing personal protective equipment, ask your chemical substance supplier for advice.

Personal protective equipment must be CE marked, showing that it complies with applicable standards.

**CHEMISOL ALL-IN-ONE 400 ml CHEMITOOL****HAND PROTECTION**

None required.

**SKIN PROTECTION**

Wear category I professional long-sleeved overalls and safety footwear (see Regulation 2016/425 and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.

**EYE PROTECTION**

Wear airtight protective goggles (see standard EN 166).

**RESPIRATORY PROTECTION**

If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, a mask with a type AX filter combined with a type P filter should be worn (see standard EN 14387).

Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.

**ENVIRONMENTAL EXPOSURE CONTROLS**

The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

**SECTION 9. Physical and chemical properties****9.1. Information on basic physical and chemical properties**

Appearance	aerosol
Colour	straw yellow
Odour	characteristic of solvent
Odour threshold	Not available
pH	Not available
Melting point / freezing point	Not available
Initial boiling point	Not available
Boiling range	Not available
Flash point	< 0 °C
Evaporation Rate	Not available
Flammability of solids and gases	flammable gas
Lower inflammability limit	Not available
Upper inflammability limit	Not available
Lower explosive limit	Not available
Upper explosive limit	Not available
Vapour pressure	0,5 hPa 20°C
Vapour density	Not available
Relative density	0, 76 ÷ 0,80 g/ml 20°C
Solubility	insoluble in water
Partition coefficient: n-octanol/water	Not available
Auto-ignition temperature	Not available
Decomposition temperature	Not available
Viscosity	< 8 mm <sup>2</sup> /s 40°C
Explosive properties	not applicable

**CHEMISOL ALL-IN-ONE 400 ml CHEMITOOL**

Oxidising properties not applicable

**9.2. Other information**

VOC (Directive 2010/75/EC) : 89,43 % - 697,51 g/litre

**SECTION 10. Stability and reactivity****10.1. Reactivity**

There are no particular risks of reaction with other substances in normal conditions of use.

**10.2. Chemical stability**

The product is stable in normal conditions of use and storage.

**10.3. Possibility of hazardous reactions**

No hazardous reactions are foreseeable in normal conditions of use and storage.

**10.4. Conditions to avoid**

Avoid overheating.

Polytetrafluorethylene (PTFE)

Avoid exposure to: >400 °C.

**10.5. Incompatible materials**

Strong reducing or oxidising agents, strong acids or alkalis, hot material.

Polytetrafluorethylene (PTFE)

May react dangerously if exposed to: metals in powder form from 370 ° C.

**10.6. Hazardous decomposition products**

Polytetrafluorethylene (PTFE)

May develop: hydrofluoric acid, carbonyl fluoride, tetrafluoroethylene, hexafluoropropylene, perfluoroisobutylene.

**SECTION 11. Toxicological information**

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.

It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

**11.1. Information on toxicological effects**

Metabolism, toxicokinetics, mechanism of action and other information



**CHEMISOL ALL-IN-ONE 400 ml CHEMITOOL**

Information not available

Information on likely routes of exposure

Information not available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Information not available

Interactive effects

Information not available

ACUTE TOXICITY

ATE (Inhalation) of the mixture:  
Not classified (no significant component)  
ATE (Oral) of the mixture:  
Not classified (no significant component)  
ATE (Dermal) of the mixture:  
Not classified (no significant component)

Distillates (petroleum), hydrotreated light naphthenic

LD50 (Oral) 5000 mg/kg bw rat

LD50 (Dermal) 3500 mg/kg bw rabbit

LC50 (Inhalation) 3,85 mg/l/4h rat

Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, <2% aromatics

LD50 (Oral) > 5000 mg/kg bw rat

LD50 (Dermal) 2000 mg/kg bw rat

LC50 (Inhalation) > 4 mg/l/4h rat

Butane

LC50 (Inhalation) > 1442,738 mg/l/15min rat

Propane

LC50 (Inhalation) 800000 ppm 15 min

SKIN CORROSION / IRRITATION

Repeated exposure may cause skin dryness or cracking.

**CHEMISOL ALL-IN-ONE 400 ml CHEMITOOL**SERIOUS EYE DAMAGE / IRRITATION

Does not meet the classification criteria for this hazard class

RESPIRATORY OR SKIN SENSITISATION

Does not meet the classification criteria for this hazard class

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

STOT - SINGLE EXPOSURE

Does not meet the classification criteria for this hazard class

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

ASPIRATION HAZARD

Toxic for aspiration

**SECTION 12. Ecological information**

Use this product according to good working practices. Avoid littering. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation.

**12.1. Toxicity**

Hydrocarbons, C10-C13, n-alkanes,  
isoalkanes, cyclics, <2% aromatics

Chronic NOEC for Algae / Aquatic Plants

1000 mg/l 72 hours

Butane

LC50 - for Fish

> 24,11 mg/l/96h

Propane

LC50 - for Fish

85,82 mg/l/96h

EC50 - for Crustacea

41,82 mg/l/48h

**CHEMISOL ALL-IN-ONE 400 ml CHEMITOOL****12.2. Persistence and degradability**

Propane

Global Warming Potential (GWP): 3. Ozone Depletion Potential (ODP): 0.

Distillates (petroleum), hydrotreated light  
naphthenic

Degradability: information not available

Echa sources

Hydrocarbons, C10-C13, n-alkanes,  
isoalkanes, cyclics, <2% aromatics

Rapidly degradable

But failing the 10-day window (100%).

Butane

Solubility in water 0,1 - 100 mg/l

Rapidly degradable

Propane

Solubility in water 0,1 - 100 mg/l

Rapidly degradable

Benzenesulfonic acid, mono-C19-28-alkyl  
derivs., sodium salts

Degradability: information not available

**12.3. Bioaccumulative potential**

Butane

Partition coefficient: n-octanol/water 1,09

Propane

Partition coefficient: n-octanol/water 1,09

**12.4. Mobility in soil**

Information not available

**12.5. Results of PBT and vPvB assessment**On the basis of available data, the product does not contain any PBT or vPvB in percentage  $\geq$  than 0,1%.**12.6. Other adverse effects**

Information not available

**CHEMISOL ALL-IN-ONE 400 ml CHEMITOOL****SECTION 13. Disposal considerations****13.1. Waste treatment methods**

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.

Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.

Waste transportation may be subject to ADR restrictions.

**CONTAMINATED PACKAGING**

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

Product residues are considered hazardous special waste. Do not dispose of in wastewater.

Empty cylinders, although completely emptied, should not be dispersed in the environment.

The overheated aerosol container at a temperature above 50 °C may burst even if it contains a small gas residue.

Waste transport may be subject to ADR.

Refer to applicable regulations.

European Waste Catalog (contaminated containers):

Aerosol as a household waste is excluded from the application of the above standard.

The exhausted commercial / industrial aerosol can be classified as: 15.01.10 \*: packaging containing residues of dangerous or contaminated substances.

**SECTION 14. Transport information****14.1. UN number**

ADR / RID, IMDG, IATA: 1950

**14.2. UN proper shipping name**

ADR / RID: AEROSOLS  
IMDG: AEROSOLS  
IATA: AEROSOLS, FLAMMABLE

**14.3. Transport hazard class(es)**

ADR / RID: Class: 2 Label: 2.1

IMDG: Class: 2 Label: 2.1

IATA: Class: 2 Label: 2.1

**14.4. Packing group**

ADR / RID, IMDG, IATA: -

**14.5. Environmental hazards**

ADR / RID: NO  
IMDG: NO  
IATA: NO

**CHEMISOL ALL-IN-ONE 400 ml CHEMITOOL****14.6. Special precautions for user**

ADR / RID:	HIN - Kemler: --	Limited Quantities: 1 L	Tunnel restriction code: (D)
IMDG:	Special Provision: - EMS: F-D, S-U	Limited Quantities: 1 L	
IATA:	Cargo:  Pass.:  Special Instructions:	Maximum quantity: 150 Kg Maximum quantity: 75 Kg A145, A167, A802	Packaging instructions: 203 Packaging instructions: 203

**14.7. Transport in bulk according to Annex II of Marpol and the IBC Code**

Information not relevant

**SECTION 15. Regulatory information****15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

Seveso Category - Directive 2012/18/EC: P3a

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006Product Point  
40Substances in Candidate List (Art. 59 REACH)On the basis of available data, the product does not contain any SVHC in percentage  $\geq$  than 0,1%.Substances subject to authorisation (Annex XIV REACH)

None

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:

None

Substances subject to the Rotterdam Convention:

None

Substances subject to the Stockholm Convention:

None

**CHEMISOL ALL-IN-ONE 400 ml CHEMITOOL**Healthcare controls

Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the workers' health and safety are modest and that the 98/24/EC directive is respected.

**15.2. Chemical safety assessment**

A chemical safety assessment has not been performed for the preparation/for the substances indicated in section 3.

**SECTION 16. Other information**

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

<b>Flam. Gas 1A</b>	Flammable gas, category 1A
<b>Aerosol 1</b>	Aerosol, category 1
<b>Aerosol 3</b>	Aerosol, category 3
<b>Press. Gas (Liq.)</b>	Liquefied gas
<b>Asp. Tox. 1</b>	Aspiration hazard, category 1
<b>Aquatic Chronic 4</b>	Hazardous to the aquatic environment, chronic toxicity, category 4
<b>H220</b>	Extremely flammable gas.
<b>H222</b>	Extremely flammable aerosol.
<b>H229</b>	Pressurised container: may burst if heated.
<b>H280</b>	Contains gas under pressure; may burst if heated.
<b>H304</b>	May be fatal if swallowed and enters airways.
<b>H413</b>	May cause long lasting harmful effects to aquatic life.
<b>EUH066</b>	Repeated exposure may cause skin dryness or cracking.

**LEGEND:**

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008
- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit

**CHEMISOL ALL-IN-ONE 400 ml CHEMITOOL**

- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

**GENERAL BIBLIOGRAPHY**

1. Regulation (EC) 1907/2006 (REACH) of the European Parliament
  2. Regulation (EC) 1272/2008 (CLP) of the European Parliament
  3. Regulation (EU) 790/2009 (I Atp. CLP) of the European Parliament
  4. Regulation (EU) 2015/830 of the European Parliament
  5. Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament
  6. Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament
  7. Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament
  8. Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament
  9. Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament
  10. Regulation (EU) 2015/1221 (VII Atp. CLP) of the European Parliament
  11. Regulation (EU) 2016/918 (VIII Atp. CLP) of the European Parliament
  12. Regulation (EU) 2016/1179 (IX Atp. CLP)
  13. Regulation (EU) 2017/776 (X Atp. CLP)
  14. Regulation (EU) 2018/669 (XI Atp. CLP)
  15. Regulation (EU) 2018/1480 (XIII Atp. CLP)
  16. Regulation (EU) 2019/521 (XII Atp. CLP)
- The Merck Index. - 10th Edition
  - Handling Chemical Safety
  - INRS - Fiche Toxicologique (toxicological sheet)
  - Patty - Industrial Hygiene and Toxicology
  - N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
  - IFA GESTIS website
  - ECHA website
  - Database of SDS models for chemicals - Ministry of Health and ISS (Istituto Superiore di Sanità) - Italy

**Note for users:**

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

This document must not be regarded as a guarantee on any specific product property.

The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.

Provide appointed staff with adequate training on how to use chemical products.

**CALCULATION METHODS FOR CLASSIFICATION**

Chemical and physical hazards: Product classification derives from criteria established by the CLP Regulation, Annex I, Part 2. The data for evaluation of chemical-physical properties are reported in section 9.

Health hazards: Product classification is based on calculation methods as per Annex I of CLP, Part 3, unless determined otherwise in Section 11.

Environmental hazards: Product classification is based on calculation methods as per Annex I of CLP, Part 4, unless determined otherwise in Section 12.

**Changes to previous review:**

The following sections were modified:

01.