

Safety data sheet

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

1.1. Product identifier.

Code: 6723.079.S301-S302-S305-S306-S307-S312-S313-S314-S316-S317-S319-S320-S321-S323-S324-S325-S326-S501-S526-S303-S309-S310-S315-S318-S322-S336-S802-R7032-R7035-R9002-R9006-R3002-R5002

Product name: AKCALI SPRAY SYNTHETIC PAINT

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

Identified Uses	Industrial.	Professional.	Consumer.
Spray paint based on acrylic resins solvent phase	✓	✓	✓
Intended use: Spray paint.			

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

Name: AKCALI BOYA VE KIMYA SANAYI TICARET A.S.
 Full address: OSMANGAZI MAH. MARESAL FEVZI CAKMAK CAD. NO:5
 District and Country: KIRAC ESENYURT ISTANBUL-TURKEY
 TURKEY

tel.+90-212-8862343
 faks +90-212-8861811

e-mail address of the competent person.

responsible for the Safety Data Sheet: zekir.senol@akcaliboya.com.tr
 Product distribution by: AKCALI BOYA VE KIMYA SANAYI TICARET A.S.

1.4. Emergency telephone number.

For urgent inquiries refer to: +90 212 886 23 43
 National Toxic Consultation Center: 114 (UZEM)

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 EC Regulation 1907/2006 and subsequent amendments. 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.
Eye irritation, category 2	H319	Causes serious eye irritation.
Specific target organ toxicity - single exposure, category 3	H336	May cause drowsiness or dizziness.

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.
H319 Causes serious eye irritation.
H336 May cause drowsiness or dizziness.

Precautionary statements:

P101 If medical advice is needed, have product container or label at hand.
P102 Keep out of reach of children.
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P211 Do not spray on an open flame or other ignition source.
P251 Do not pierce or burn, even after use.
P261 Avoid breathing dust / fume / gas / mist / vapours / spray.
P280 Wear eye protection / face protection.
P312 Call a POISON CENTER / doctor / if you feel unwell.
P405 Store locked up.
P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50°C / 122°F.
P501 Dispose of contents / container according to national regulations.

Contains: METHYL ACETATE
N-BUTYL ACETATE

VOC (Directive 2004/42/EC) :

Special finishes.

VOC given in g/litre of product in a ready-to-use condition :

Limit value: 840,00

VOC of product : 540,60 gr/ltr

2.3. Other hazards.

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

SECTION 3. Composition/information on ingredients.**3.1. Substances.**

Information not relevant.

3.2. Mixtures.

Contains:

Identification.**METHYL ACETATE**

CAS. 79-20-9

**Classification 1272/2008
(CLP).**

24 ≤ x < 29

Flam. Liq. 2 H225, Eye Irrit. 2

EC. 201-185-2		H319, STOT SE 3 H336
INDEX. 607-021-00-X		
PROPANE		
CAS. 74-98-6	14 ≤ x < 19	Flam. Gas 1 H220
EC. 200-827-9		
INDEX. 601-003-00-5		
N-BUTYL ACETATE		
CAS. 123-86-4	14 ≤ x < 19	Flam. Liq. 3 H226, STOT SE 3 H336
EC. 204-658-1		
INDEX. 607-025-00-1		
Reg. no. 01-2119485493-29		
BUTANE		
CAS. 106-97-8	7 ≤ x < 9	Flam. Gas 1 H220
EC. 203-448-7		
INDEX. 601-004-00-0		
METHANOL		
CAS. 67-56-1	2 ≤ x < 3	Flam. Liq. 2 H225, Acute Tox. 3 H301, Acute Tox. 3 H311, Acute Tox. 3 H331, STOT SE 1 H370
EC. 200-659-6		
INDEX. 603-001-00-X		
2-BUTOXYETHANOL		
CAS. 111-76-2	2 ≤ x < 3	Acute Tox. 4 H302, Acute Tox. 4 H312, Acute Tox. 4 H332, Eye Irrit. 2 H319, Skin Irrit. 2 H315
EC. 203-905-0		
INDEX. 603-014-00-0		
Reg. no. 01-2119475108-36		

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: 30,00 %

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.
For symptoms and effects caused by the contained substances, see chap. 11.

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.

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	MAK-und BAT-Werte-Liste 2012
EST	Eesti	Töökeskkonna keemiliste ohutegurite piirnormid 1. Vastu võetud 18.09.2001 nr 293 RT I 2001, 77, 460 - Redaktsiooni jõustumise kp: 01.01.2008
FRA	France	JORF n°0109 du 10 mai 2012 page 8773 texte n° 102
GBR	United Kingdom	EH40/2005 Workplace exposure limits
ITA	Italia	Decreto Legislativo 9 Aprile 2008, n.81
POL	Polska	ROZPORZĄDZENIE MINISTRA PRACY I POLITYKI SPOŁECZNEJ z dnia 16 grudnia 2011r
SVN	Slovenija	Uradni list Republike Slovenije 15. 6. 2007
TUR	Türkiye	2000/39/EC sayılı Direktifin ekidir
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2016

METHYL ACETATE**Threshold Limit Value.**

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
AGW	DEU	610	200	2440	800

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MAK	DEU	310	100	1240	400	
TLV	EST	450	150	900	300	
VLEP	FRA	610	200	760	250	SKIN.
WEL	GBR	616	200	770	250	
NDS	POL	250		600		
TLV-ACGIH		606	200	757	250	

PROPANE**Threshold Limit Value.**

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
AGW	DEU	1800	1000	7200	4000
MAK	DEU	1800	1000	7200	4000
TLV	EST	1800	1000		
NDS	POL	1800			
MV	SVN	1800	1000		
TLV-ACGIH			1000		

N-BUTYL ACETATE**Threshold Limit Value.**

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
MAK	DEU	480	100	960	200
VLEP	FRA	710	150	940	200
WEL	GBR	724	150	966	200
NDS	POL	200		950	
TLV-ACGIH			50		150

BUTANE**Threshold Limit Value.**

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
AGW	DEU	2400	1000	9600	4000
MAK	DEU	2400	1000	9600	4000
TLV	EST	1500	800		
VLEP	FRA	1900	800		
WEL	GBR	1450	600	1810	750
NDS	POL	1900		3000	
TLV-ACGIH				2377	1000

2-BUTOXYETHANOL**Threshold Limit Value.**

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
AGW	DEU	49	10	196	40	SKIN.
MAK	DEU	49	10	98	20	SKIN.
TLV	EST	98	20	246	50	SKIN.
VLEP	FRA	49	10	246	50	SKIN.

WEL	GBR	123	25	246	50	SKIN.
VLEP	ITA	98	20	246	50	SKIN.
NDS	POL	98		200		
MV	SVN	98	20			SKIN.
ESD	TUR	98	20	246	50	SKIN.
OEL	EU	98	20	246	50	SKIN.
TLV-ACGIH		97	20			

METHANOL**Threshold Limit Value.**

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
AGW	DEU	270	200	1080	800	SKIN.
MAK	DEU	270	200	1080	800	SKIN.
TLV	EST	260	200			SKIN.
VLEP	FRA	260	200	1300	1000	SKIN.
WEL	GBR	266	200	333	250	SKIN.
VLEP	ITA	260	200			SKIN.
NDS	POL	100		300		
OEL	EU	260	200			SKIN.
TLV-ACGIH		262	200	328	250	

_egend:

(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

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

When choosing risk management measures and operating conditions, consult the exposition scenarios attached.

Provide an emergency shower with face and eye wash station.

HAND PROTECTION

None required.

SKIN PROTECTION

Wear category I professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC 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.

For information on controlling environmental exposure, see the exposure scenarios attached to this safety datasheet.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance	aerosol
Colour	according to range of colours
Odour	Solvent
Odour threshold.	Not available.
pH.	Not available.
Melting point / freezing point.	Not available.
Initial boiling point.	Not applicable.
Boiling range.	Not available.
Flash point.	Not applicable.
Evaporation Rate	Not available.
Flammability of solids and gases	Not available.
Lower inflammability limit.	Not available.
Upper inflammability limit.	Not available.
Lower explosive limit.	Not available.
Upper explosive limit.	Not available.
Vapour pressure.	300 mmHg
Vapour density	Not available.
Relative density.	0,75-0,80 Kg/l
Solubility	Not miscible with water
Partition coefficient: n-octanol/water	Not available.
Auto-ignition temperature.	Not available.
Decomposition temperature.	Not available.
Viscosity	Not available.
Explosive properties	Not available.
Oxidising properties	Not available.

9.2. Other information.

VOC (Directive 2010/75/EC) :	Not available.
VOC (volatile carbon) :	Not available.

SECTION 10. Stability and reactivity.

10.1. Reactivity.

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

N-BUTYL ACETATE

Decomposes on contact with: water.

2-BUTOXYETHANOL

Decomposes under the effect of heat.

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.

N-BUTYL ACETATE

Risk of explosion on contact with: strong oxidising agents. May react dangerously with: alkaline hydroxides, potassium tert-butoxide. Forms explosive mixtures with: air.

2-BUTOXYETHANOL

May react dangerously with: aluminium, oxidising agents. Forms peroxides with: air.

10.4. Conditions to avoid.

Avoid overheating. N-

BUTYL ACETATE

Avoid exposure to: moisture, sources of heat, naked flames.

2-BUTOXYETHANOL

Avoid exposure to: sources of heat, naked flames.

10.5. Incompatible materials.

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

N-BUTYL ACETATE

Incompatible with: water, nitrates, strong oxidants, acids, alkalis, zinc.

10.6. Hazardous decomposition products.

2-BUTOXYETHANOL

May develop: hydrogen.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.

METHANOL The minimal lethal dose following ingestion is considered to be in the range of 300-1000 mg/kg. Ingestion of as little as 4-10 ml methanol in adults may cause permanent blindness (IPCS).

N-BUTYL ACETATE In humans the substance's vapours cause irritation to the eyes and nose. In the event of repeated exposure, there is skin irritation, dermatosis (with dryness and flaking of the skin) and keratitis.

ACUTE TOXICITY.

LC50 (Inhalation - vapours) of the mixture: 326,667 mg/l
LC50 (Inhalation - mists / powders) of the mixture: Not classified (no significant component).
LD50 (Oral) of the mixture: 16683,333 mg/kg
LD50 (Dermal) of the mixture: 32666,667 mg/kg

2-BUTOXYETHANOL

LD50 (Oral). 615 mg/kg Rat
LD50 (Dermal). 405 mg/kg Rabbit
LC50 (Inhalation). 2,2 mg/l/4h Rat

N-BUTYL ACETATE

LD50 (Oral). > 6400 mg/kg Rat
LD50 (Dermal). > 5000 mg/kg Rabbit
LC50 (Inhalation). 21,1 mg/l/4h Rat

SKIN CORROSION / IRRITATION.

Does not meet the classification criteria for this hazard class.

SERIOUS EYE DAMAGE / IRRITATION.

Causes serious eye irritation.

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.

May cause drowsiness or dizziness.

STOT - REPEATED EXPOSURE.

Does not meet the classification criteria for this hazard class.

ASPIRATION HAZARD.

Does not meet the classification criteria for this hazard class.

SECTION 12. Ecological information.**12.1. Toxicity.**

Information not available.

12.2. Persistence and degradability.**BUTANE**

Solubility in water. 0,1 - 100 mg/l

Rapidly biodegradable.

PROPANE

Solubility in water. 0,1 - 100 mg/l

Rapidly biodegradable.

METHANOL

Solubility in water. 1000 - 10000 mg/l

Rapidly biodegradable.

2-BUTOXYETHANOL

Solubility in water. 1000 - 10000 mg/l

Rapidly biodegradable.

METHYL ACETATE

Solubility in water. 243500 mg/l

Rapidly biodegradable.

N-BUTYL ACETATE

Solubility in water. 1000 - 10000 mg/l

12.3. Bioaccumulative potential.

BUTANE

Partition coefficient: n-octanol/water. 1,09

PROPANE

Partition coefficient: n-octanol/water. 1,09

METHANOL

Partition coefficient: n-octanol/water. -0,77

BCF. 0,2

2-BUTOXYETHANOL

Partition coefficient: n-octanol/water. 0,81

METHYL ACETATE

Partition coefficient: n-octanol/water. 0,18

N-BUTYL ACETATE

Partition coefficient: n-octanol/water. 2,3

BCF. 15,3

12.4. Mobility in soil.

METHYL ACETATE

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Partition coefficient:
soil/water. 0,18

N-BUTYL ACETATE

Partition coefficient:
soil/water. < 3

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 greater than 0,1%.

12.6. Other adverse effects.

Information not available.

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.

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

ADR / RID, IMDG, 1950
IATA:

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

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:	Maximum quantity: 100 Kg	Packaging instructions: 130
	Pass.:	Maximum quantity: 25 Kg	Packaging instructions: 130
	Special Instructions:	A802	

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:

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006.

Product.

Point. 40

Substances in Candidate List (Art. 59 REACH).

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.

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.

No chemical safety assessment has been processed for the mixture and the substances it contains.

SECTION 16. Other information.

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

Flam. Gas 1	Flammable gas, category 1
Aerosol 1	Aerosol, category 1
Aerosol 3	Aerosol, category 3
Flam. Liq. 2	Flammable liquid, category 2
Flam. Liq. 3	Flammable liquid, category 3
Acute Tox. 3	Acute toxicity, category 3
STOT SE 1	Specific target organ toxicity - single exposure, category 1
Acute Tox. 4	Acute toxicity, category 4
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
STOT SE 2	Specific target organ toxicity - single exposure, category 2
H220	Extremely flammable gas.
H222	Extremely flammable aerosol.
H229	Pressurised container: may burst if heated.
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H301	Toxic if swallowed.
H311	Toxic in contact with skin.
H331	Toxic if inhaled.
H370	Causes damage to organs.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H336	May cause drowsiness or dizziness.
H371	May cause damage to organs.
EUH066	Repeated exposure may cause skin dryness or cracking.

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- 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
- 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 (EU) 1907/2006 (REACH) of the European Parliament
 2. Regulation (EU) 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
- 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
 - ECHA website

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.

Changes to previous review:

The following sections were modified:

01 / 02 / 03 / 04 / 08 / 09 / 10 / 11 / 12 / 14 / 15 / 16.