

SAFETY DATA SHEET
according to 1907/2006/EC, Article 31

Revision date: 25.11.2022

1- IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY/UNDERTAKING

Product details**Trade name:** Hardener for putty**Article number:****Relevant identified uses of the substance or mixture and uses advised against**

Formulation and packing into small containers. Industrial use as polymerisation initiator for production of polymers, and as cross-linking agent for the manufacture of resins. Professional use as hardener for coating resins. SU 9, SU 10, SU12, SU 22] [PROC 3, PROC 5, PROC 7, PROC 8a, PROC 8b, PROC 9, PROC 10, PROC 11, PROC 13, PROC 14, PROC 19, PROC 21

Intended use: Car refinishing Product/Hardening agent/ Curing agent**Manufacturer/Supplier:** Chamäleon GmbH

Rudolf-Diesel-Straße, 8a, 69115 Heidelberg -- Germany

Further information obtainable from: Product Safety Department**Information in case of emergency:** + 49 70024112112 (CH)

2 – HAZARDS IDENTIFICATION

Classification of the substance or mixture**Classification according to Regulation (EC) No 1272/2008**

Org. Perox. E H242 Heating may cause a fire.

Eye Irrit. 2 H319 Causes serious eye irritation.

Skin Sens. 1 H317 May cause an allergic skin reaction.

Aquatic Acute 1 H400 Very toxic to aquatic life.

Aquatic Chronic 1 H410 Very toxic to aquatic life with long lasting effects.

Label elements**Labelling according to Regulation (EC) No 1272/2008**

The product is classified and labelled according to the CLP regulation.

Hazard pictograms

GHS02



GHS07



GHS09

Signal word Warning

Hazard-determining components of labelling:

dibenzoyl peroxide

Hazard statements

H242 Heating may cause a fire.

H319 Causes serious eye irritation.

H317 May cause an allergic skin reaction.

H410 Very toxic to aquatic life with long lasting effects.

Precautionary statements

P101 If medical advice is needed, have product container or label at hand.

P102 Keep out of reach of children.

P280 Wear protective gloves / eye protection / face protection.

P302+P352 IF ON SKIN: Wash with plenty of soap and water.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P403+P235 Store in a well-ventilated place. Keep cool.

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

Other hazards

Results of PBT and vPvB assessment

PBT: Not applicable.

vPvB: Not applicable.

3- COMPOSITION/INFORMATION ON INGREDIENTS

Mixtures

Description: Mixture of substances listed below with nonhazardous additions.

Components:		
CAS: 94-36-0 EINECS: 202-327-6 Index number: 617-008-00-0	dibenzoyl peroxide	45-52%
	Org. Perox. B, H241; Aquatic Acute 1, H400 (M=10); Aquatic Chronic 1, H410 (M=10); Eye Irrit. 2, H319; Skin Sens. 1, H317	
CAS: 131-11-3 EINECS: 205-011-6	dimethyl phthalate substance with a Community workplace exposure limit	25-35%
CAS: 107-21-1 EINECS: 203-473-3 Index number: 603-027-00-1	ethanediol	0.1-9.9%
	STOT RE 2, H373; Acute Tox. 4, H302	

Additional information: For the wording of the listed hazard phrases refer to section 16.

4- FIRST AID MEASURES

Description of first aid measures

After inhalation:

Supply fresh air and to be sure call for a doctor.

In case of unconsciousness place patient stably in side position for transportation.

After skin contact:

If skin irritation continues, consult a doctor.

Immediately wash with water and soap and rinse thoroughly.

After eye contact: Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

After swallowing: Do not induce vomiting; call for medical help immediately.

Most important symptoms and effects, both acute and delayed No further relevant information available.

Indication of any immediate medical attention and special treatment needed

No further relevant information available.

5- FIRE - FIGHTING MEASURE

Extinguishing media

Suitable extinguishing agents:

CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

Use fire extinguishing methods suitable to surrounding conditions.

Special hazards arising from the substance or mixture

In case of fire, the following can be released:

Carbonic anhydride (CO₂)

Carbon monoxide (CO)

Benzoic acid

Benzene

Biphenyl

Phenyl benzoate

Under certain fire conditions, traces of other toxic gases cannot be excluded.

Advice for firefighters

Protective equipment:

Do not inhale explosion gases or combustion gases.

Mouth respiratory protective device.

Wear suitable fire protection equipment.

Additional information

Cool endangered receptacles with water spray.

Collect contaminated fire fighting water separately. It must not enter the sewage system.

6- ACCIDENTAL RELEASE MEASURE

Personal precautions, protective equipment and emergency procedures

Keep away from ignition sources.

Wear protective equipment. Keep unprotected persons away.

Ensure adequate ventilation

Use respiratory protective device against the effects of fumes/dust/aerosol.

Environmental precautions:

Inform respective authorities in case of seepage into water course or sewage system.

Do not allow to enter sewers/ surface or ground water.

Methods and material for containment and cleaning up:

Pick up mechanically.

Do not allow to dry out

Ensure adequate ventilation.

Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

7- HANDLING AND STORAGE

Precautions for safe handling

Use only in well ventilated areas.

Ensure good ventilation/exhaustion at the workplace.

Keep away from heat and direct sunlight.

Protect against electrostatic charges.

Information about fire - and explosion protection:

Substance/product is oxidising when dry.

Keep ignition sources away - Do not smoke.

Conditions for safe storage, including any incompatibilities

Storage:

Requirements to be met by storerooms and receptacles:

Store in a cool location.

Store only in the original receptacle.

Information about storage in one common storage facility:

Do not store together with reducing agents, heavy-metal compounds, acids and alkalis.

Further information about storage conditions:

Store receptacle in a well ventilated area.

Prevent from drying out.

Keep container tightly sealed.

Protect from heat and direct sunlight.

The product, stored in the original containers, away from sunlight, maintains its properties for 12 months from the production date.

Recommended storage temperature: +5°C / +25°C

Specific end use(s) No further relevant information available.

8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

Additional information about design of technical facilities: No further data; see item 7.

Control parameters

Ingredients with limit values that require monitoring at the workplace:	
94-36-0 dibenzoyl peroxide	
WEL (Great Britain)	Long-term value: 5 mg/m ³
PEL (USA)	Long-term value: 5 mg/m ³
REL (USA)	Long-term value: 5 mg/m ³
TLV (USA)	Long-term value: 5 mg/m ³
131-11-3 dimethyl phthalate	
WEL (Great Britain)	Short-term value: 10 mg/m ³ Long-term value: 5 mg/m ³
PEL (USA)	Long-term value: 5 mg/m ³
REL (USA)	Long-term value: 5 mg/m ³
TLV (USA)	Long-term value: 5 mg/m ³
107-21-1 ethanediol	
IOELV (EU)	Short-term value: 104 mg/m ³ , 40 ppm Long-term value: 52 mg/m ³ , 20 ppm Skin
WEL (Great Britain)	Short-term value: 104** mg/m ³ , 40** ppm Long-term value: 10* 52** mg/m ³ , 20** ppm Sk *particulate **vapour
TLV (USA)	Short-term value: 10** mg/m ³ , 50* ppm Long-term value: 25* ppm *vapor fraction:**inh. fraction, aerosol only
WEEL (USA)	I (2)

Regulatory information

WEL (Great Britain): EH40/2020

PEL (USA): Guide to Occupational Exposure Values (OSHA PELs)

REL (USA): Guide to Occupational Exposure Values (NIOSH RELs)

TLV (USA): Guide to Occupational Exposure Values (ACGIH)

IOELV (EU): (EU) 2019/1831

WEEL (USA): Guide to Occupational Exposure Values (AIHA WEELs)

DNELs		
94-36-0 dibenzoyl peroxide		
Oral	DNEL / Long term exposure - Systemic effects	2 mg/kg bw/d (general population)
Dermal	DNEL / Long term exposure - Systemic effects	13.3 mg/kg bw/d (workers)
	DNEL / Long term exposure - Local effects	0.034 mg/kg (workers)
Inhalative	DNEL / Long term exposure - Systemic effects	39 mg/m ³ (workers)
131-11-3 dimethyl phthalate		
Oral	DNEL / Long term exposure - Systemic effects	9.4 mg/kg bw/d (general population)
Dermal	DNEL / Long term exposure - Systemic effects	67.5 mg/kg bw/d (general population) 135 mg/kg bw/d (workers)
Inhalative	DNEL / Long term exposure - Systemic effects	16.3 mg/m ³ (general population) 66.1 mg/m ³ (workers)
107-21-1 ethanediol		
Dermal	DNEL / Long term exposure - Systemic effects	53 mg/kg bw/d (general population) 106 mg/kg bw/d (workers)
Inhalative	DNEL / Long term exposure - Local effects	7 mg/m ³ (general population) 35 mg/m ³ (workers)
PNECs		
94-36-0 dibenzoyl peroxide		
PNEC / aqua	0.00002 mg/l (freshwater) 0.000602 mg/l (intermittent releases) 0.000002 mg/l (marine water)	
PNEC / sediment	0.0127 mg/kg dw (freshwater) 0.00127 mg/kg dw (marine water)	
PNEC / soil	0.0025 mg/kg dw	
PNEC / STP	0.35 mg/l (sewage treatment plant)	
131-11-3 dimethyl phthalate		
PNEC / aqua	0.192 mg/l (freshwater) 0.39 mg/l (intermittent releases) 0.0192 mg/l (marine water)	
PNEC / sediment	1.3 mg/kg dw (freshwater) 0.13 mg/kg dw (marine water)	
PNEC / soil	3.16 mg/kg dw	
PNEC / STP	4 mg/l (sewage treatment plant)	

107-21-1 ethanediol	
PNEC / aqua	10 mg/l (freshwater) 10 mg/l (intermittent releases) 1 mg/l (marine water)
PNEC / sediment	37 mg/kg dw (freshwater) 3.7 mg/kg dw (marine water)
PNEC / soil	1.53 mg/kg dw
PNEC / STP	199.5 mg/l (sewage treatment plant)

Additional information: The lists valid during the making were used as basis.

Exposure controls

Appropriate engineering controls No further data; see item 7.

Individual protection measures, such as personal protective equipment

General protective and hygienic measures:

Do not eat, drink, smoke or sniff while working.

The usual precautionary measures are to be adhered to when handling chemicals.

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing

Wash hands before breaks and at the end of work.

Do not inhale gases / fumes / aerosols.

Avoid contact with the eyes and skin.

Respiratory protection: Use suitable respiratory protective device in case of insufficient ventilation.

Hand protection

Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

Material of gloves

Neoprene gloves

Nitrile rubber, NBR

Recommended thickness of the material: 0.14 mm

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

Penetration time of glove material:

The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed. For the mixture of chemicals mentioned, the penetration time has to be at least 30 minutes (Permeation according to EN 374 Part 3: Level 2).

Eye/face protection: Tightly sealed goggles

Body protection: Light weight protective clothing

9 – PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

General Information

Physical state

Form:	<i>Solid</i>
Colour:	<i>Different according to colouring</i>
Odour:	<i>Characteristic</i>
Odour threshold:	<i>Not determined.</i>

Melting point/freezing point: *0 °C*

Boiling point or initial boiling point and boiling range *Not applicable.
Prior to or during boiling decomposition occurs*

Flammability *May cause fire.*

Lower and upper explosion limit

Lower:	<i>Not applicable.</i>
Upper:	<i>Not applicable.</i>
Flash point:	<i>Not applicable. Above the SADT value.</i>

Decomposition temperature: *SADT = 50 °C
SADT: Self Accelerating Decomposition*

pH at 20 °C *4-5*

Viscosity:	
Kinematic viscosity	<i>172000-754000 m²/s</i>
Dynamic:	<i>(Brookfield, 20°C) 215000-867000 mPa·s</i>

Solubility

water: *Insoluble.*

Partition coefficient n-octanol/water (log value) *Not applicable.*

Vapour pressure: *Not applicable.*

Density and/or relative density

Density at 20 °C: *1.15-1.25 g/cm³*

Vapour density *Not applicable.*

Particle characteristics *Pasty solid*

Other information**Appearance:****Form:** *Pasty***Important information on protection of health and environment, and on safety.****Auto-ignition temperature:** *Not applicable.***Explosive properties:** *Product does not present an explosion hazard.***Change in condition****Evaporation rate** *Not determined.***Information with regard to physical hazard classes****Explosives** *Void***Flammable gases** *Void***Aerosols** *Void***Oxidising gases** *Void***Gases under pressure** *Void***Flammable liquids** *Void***Flammable solids** *Void***Self-reactive substances and mixtures** *Void***Pyrophoric liquids** *Void***Pyrophoric solids** *Void***Self-heating substances and mixtures** *Void***Substances and mixtures, which emit flammable gases****in contact with water** *Void***Oxidising liquids** *Void***Oxidising solids** *Void***Organic peroxides**

Heating may cause a fire.

Corrosive to metals *Void***Desensitised explosives** *Void***10- STABILITY AND REACTIVITY****Reactivity** No further relevant information available.**Chemical stability****Thermal decomposition / conditions to be avoided:**

No decomposition if used and stored according to specifications. Exothermic thermal decomposition.

Visible decomposition with spontaneous ignition on heating.

SADT = 50°C

SADT (Self accelerating decomposition temperature) is the lowest temperature at which self accelerating decomposition may occur with a substance in the packaging as used in transport.

A dangerous self-accelerating decomposition reaction and, under certain circumstances, explosion or fire can be caused by thermal decomposition at and above the SADT.

Contact with incompatible substances can cause decomposition at or below the SADT.

Possibility of hazardous reactions

Reacts with reducing agents.

Reacts with heavy metals.

Reacts with alkali, amines and strong acids.

Conditions to avoid No further relevant information available.

Incompatible materials:

Reducing agents like amines, acids, alkali, compounds based on heavy metals (p.e. accelerators)

Hazardous decomposition products:

Benzoic acid

Benzene

Biphenyl

Phenyl benzoate

11- TOXICOLOGICAL INFORMATION

Information on hazard classes as defined in Regulation (EC) No 1272/2008

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

LD/LC50 values relevant for classification:		
94-36-0 dibenzoyl peroxide		
Oral	LD0	>2,000 mg/kg (mouse) (OECD TG 401: Acute Oral Toxicity)
Inhalative	LC0	24.3 mg/l (rat) (OECD TG 403: Acute Inhalation Toxicity)
131-11-3 dimethyl phthalate		
Oral	LD50	8,200 mg/kg (rat)
Dermal	LD50	12,000 mg/kg (rabbit)
107-21-1 ethanediol		
Oral	LD50	7,712 mg/kg (rat)
Dermal	LD50	>3,500 mg/kg (rabbit)
Inhalative	LC50 / 6h	>2.5 mg/l (mouse)

Skin corrosion/irritation Based on available data, the classification criteria are not met.

Serious eye damage/irritation

Causes serious eye irritation.

Respiratory or skin sensitisation

May cause an allergic skin reaction.

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.

STOT-single exposure Based on available data, the classification criteria are not met.

STOT-repeated exposure Based on available data, the classification criteria are not met.

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

Information on other hazards

Endocrine disrupting properties
None of the ingredients is listed.

12 – ECOLOGICAL INFORMATION

Toxicity

Aquatic toxicity:	
94-36-0 dibenzoyl peroxide	
LC50 / 96h	0.0602 mg/l (fish - Oncorhynchus mykiss) (OECD TG 203: Fish, Acute Toxicity Test)
EC50 / 48h	0.11 mg/l (crustacea - Daphnia magna) (OECD TG 202: Daphnia sp. Acute Immobilisation Test)
ErC50 / 72h	0.0711 mg/l (algae - Pseudokirchneriella subcapitata) (OECD TG 201: Alga, Growth Inhibition Test)
M Factor Acute	10
NOEC / 96h	0.0316 mg/l (fish - Oncorhynchus mykiss) (OECD TG 203: Fish, Acute Toxicity Test)
EC10 / 21d	0.001 mg/l (crustacea - Daphnia magna) (OECD TG 211: Daphnia magna Reproduction Test)
NOEC / 72 h	0.02 mg/l (algae - Pseudokirchneriella subcapitata) (OECD TG 201: Alga, Growth Inhibition Test)
M Factor Chronic	10
131-11-3 dimethyl phthalate	
LC50 / 96h	39 mg/l (fish - Pimephales promelas)
EC50 / 48h	>52 mg/l (crustacea - Daphnia magna)
ErC50 / 72h	259.76 mg/l (algae - Scenedesmus subspicatus)
NOEC / 21d	9.6 mg/l (crustacea - Daphnia magna)
107-21-1 ethanediol	
LC50 / 96h	72,860 mg/l (fish - Pimephales promelas)
EC50 / 48h	>100 mg/l (crustacea - Daphnia magna) (OECD TG 202: Daphnia sp. Acute Immobilisation Test)
ErC50 / 96h	6,500-13,000 mg/l (algae - Pseudokirchneriella subcapitata)
NOEC / 7d	8,590 mg/l (crustacea - Ceriodaphnia dubia)

Persistence and degradability	
94-36-0 dibenzoyl peroxide	
Ready Biodegradability in water / 28d	71 % (OECD TG 301 D: Ready Biodegradability: Closed Bottle Test)
131-11-3 dimethyl phthalate	
Ready Biodegradability in water / 11d	91 % (OECD TG 301 E: Ready biodegradability: Modified OECD Screening Test)
107-21-1 ethanediol	
Ready Biodegradability in water / 10d	90-100 % (OECD TG 301A: Ready Biodegradability: DOC Die Away Test)
Bioaccumulative potential	
94-36-0 dibenzoyl peroxide	
Log Kow	3.2 /(22°C) (OECD TG 117: Partition Coefficient (n-octanol / water), HPLC Method))
131-11-3 dimethyl phthalate	
Log Kow	1.54 /(25°C) (OECD TG 107: Partition Coefficient (n-octanol / water), Shake Flask Method)
BCF	57 /21d (fish - Lepomis macrochirus)
Mobility in soil	
94-36-0 dibenzoyl peroxide	
Log Koc	3.8 /(22°C) (OECD TG 121: (Estimation of the Adsorption Coefficient (Koc) on Soil and on Sewage Sludge using High Performance Liquid Chromatography (HPLC))
131-11-3 dimethyl phthalate	
Log Koc	1.5

Results of PBT and vPvB assessment

PBT: Not applicable.

vPvB: Not applicable.

Endocrine disrupting properties The product does not contain substances with endocrine disrupting properties.

Other adverse effects

Remark: Very toxic for fish

Additional ecological information:

General notes:

Very toxic for aquatic organisms

Also poisonous for fish and plankton in water bodies.

Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water

Do not allow product to reach ground water, water course or sewage system.

Danger to drinking water if even small quantities leak into the ground.

13- DISPOSAL CONSIDERATION

Waste treatment methods

Recommendation

Must not be disposed together with household garbage. Do not allow product to reach sewage system. Disposal must be made according to official regulations.

Uncleaned packaging:

Recommendation:

Disposal must be made according to official regulations. Packagings that may not be cleansed are to be disposed of in the same manner as the product.

14- TRANSPORT INFORMATION

UN number or ID number

ADR, IMDG, IATA UN3108

UN proper shipping name

ADR ORGANIC PEROXIDE TYPE E, SOLID (dibenzoyl peroxide), ENVIRONMENTALLY HAZARDOUS
IMDG, IATA ORGANIC PEROXIDE TYPE E, SOLID (dibenzoyl peroxide)

Transport hazard class(es)

ADR



Class 5.2 Organic peroxides.
Label 5.2

IATA, IMDG



Class 5.2 Organic peroxides.
Label 5.2

Packing group
ADR, IMDG, IATA

Void

Environmental hazards:

Marine pollutant: Yes
Special marking (ADR): Symbol (fish and tree)

Special precautions for user

Warning: Organic peroxides.

Hazard identification number (Kemler code): -

EMS Number: F-J,S-R

Stowage Category: D

Stowage Code SW1 Protected from sources of heat.

Segregation Code SG35 Stow "separated from" acids. SGG1-acids

SG36 Stow "separated from" alkalis. SGG18-alkalis.

SG72 See 7.2.6.3.2.

Maritime transport in bulk according to IMO instruments

Not applicable.

Transport/Additional information:

ADR

Limited quantities (LQ) 500 g

Transport category 2

Tunnel restriction code D

IMDG

Limited quantities (LQ) 500 g

UN "Model Regulation":

UN 3108 ORGANIC PEROXIDE TYPE E, SOLID (PEROXIDE), 5.2, ENVIRONMENTALLY HAZARDOUS

15 – REGULATORY INFORMATION

Safety, health and environmental regulations/legislation specific for the substance or mixture.

Regulation (EC) No 1907/2006 (UK REACH - Registration, Evaluation, Authorisation and Restriction of Chemicals)

Regulation (EC) No 1272/2008 (GB CLP - Classification, Labelling and Packaging of substances and mixtures)

Directive 2012/18/EU (Seveso)

Named dangerous substances - ANNEX I None of the ingredients is listed.

Seveso category

P6b SELF-REACTIVE SUBSTANCES AND MIXTURES and ORGANIC PEROXIDES

E1 Hazardous to the Aquatic Environment

Qualifying quantity (tonnes) for the application of lower-tier requirements 50 t**Qualifying quantity (tonnes) for the application of upper-tier requirements 200 t****Chemical safety assessment:**

A Chemical Safety Assessment has been carried out for

Dibenzoyl peroxide - CAS 94-36-0

16-OTHER INFORMATION**Relevant phrases**

H241 Heating may cause a fire or explosion.

H302 Harmful if swallowed.

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

H373 May cause damage to organs through prolonged or repeated exposure.

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

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

No further relevant information available.

Sector of Use

SU3 Industrial uses: Uses of substances as such or in preparations at industrial sites

SU9 Manufacture of fine chemicals

SU10 Formulation [mixing] of preparations and/or re-packaging (excluding alloys)

SU12 Manufacture of plastics products, including compounding and conversion

SU22 Professional uses: Public domain (administration, education, entertainment, services, craftsmen)

Process category

PROC3 Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition

PROC5 Mixing or blending in batch processes

PROC7 Industrial spraying

PROC8a Transfer of substance or mixture (charging and discharging) at non-dedicated facilities

PROC8b Transfer of substance or mixture (charging and discharging) at dedicated facilities

PROC9 Transfer of substance or mixture into small containers (dedicated filling line, including weighing)

PROC10 Roller application or brushing

PROC11 Non industrial spraying

PROC13 Treatment of articles by dipping and pouring

PROC14 Tableting, compression, extrusion, pelletisation, granulation

PROC19 Manual activities involving hand contact

PROC21 Low energy manipulation and handling of substances bound in/on materials or articles

Environmental release category

ERC2 Formulation into mixture

ERC6d Use of reactive process regulators in polymerisation processes at industrial site (inclusion or not into/onto article)

ERC8b Widespread use of reactive processing aid (no inclusion into or onto article, indoor)

ERC8e Widespread use of reactive processing aid (no inclusion into or onto article, outdoor)

Abbreviations and acronyms:

UK REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)

ICAO-TI: Technical Instructions by the "International Civil Aviation Organisation" (ICAO)

GB CLP: Classification, Labelling and Packaging

TLV: Threshold Limit Value

TLV-TWA: Threshold Limit Value - Time Weighted Average

TLV-STEL: Threshold Limit Value - Short Term Exposure Limit

PEL: Permissible Exposure Limits (Limiti di esposizione consentiti)

REL: Recommended Exposure Limits (Limiti di esposizione raccomandati)

IOELV: Indicative Occupational Exposure Limit Value

WEELs: Workplace Environmental Exposure Limits (Limiti di esposizione ambientale sul posto di lavoro)

BEI: Biological Exposure Indices

LD50: Lethal dose, 50 percent

LC50: Lethal Concentration, 50 percent

LC0: Lethal Concentration 0 - no effect

Kow: Octanol-Water partition coefficient

Koc: Organic Carbon partition Coefficient

BCF: BioConcentration Factor

LC50: LC50: Lethal Concentration, 50 percent

EC50: Effective Concentration, 50 percent

EC10: Effective Concentration, 10 percent

ErC50: Effective Concentration, 50 percent, growth rate

NOEC: No-Observed Effect Concentration.

WGK: Wassergefährdungsklasse - Water hazard class [Germany]

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

DNEL: Derived No-Effect Level (UK REACH)
PNEC: Predicted No-Effect Concentration (UK REACH)
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
Org. Perox. B: Organic peroxides – Type B
Org. Perox. E: Organic peroxides – Type E/F
Acute Tox. 4: Acute toxicity – Category 4
Eye Irrit. 2: Serious eye damage/eye irritation – Category 2
Skin Sens. 1: Skin sensitisation – Category 1
STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2
Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1
Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard – Category 1

The information contained in these sheets is based on the present state of knowledge and current national legislation. It provides guidance on health, safety and environmental aspects and should not be construed as any guarantee of technical performance or suitability for particular applications.



CHAMALEON GMBH / RUDOLF-DIESEL-STRASSE 8A / 69115 HEIDELBERG / GERMANY

CHAMALEON GMBH
RUDOLF-DIESEL-STRASSE 8A
69115 HEIDELBERG
GERMANY

FON 0049 (0) 6221 - 520 440
FAX 0049 (0) 6221 - 520 449
MAIL INFO@CHAMAELEON-PRODUKTION.DE
WEB WWW.CHAMAELEON-PRODUKTION.DE

■

STEUERNUMMER/TAX NR.: DE 231468544
EORI NR./CUSTOMS NR.: DE 6029442 / HRB 9778
GESCHÄFTSFÜHRER/CEO: SASCHA HAGEMANN

BANK HEIDELBERGER VOLKSBANK EG
IBAN DE78 6729 0000 0042 8627 03
BIC GENODE61HDI