

# Safety Data Sheet

## acc. to OSHA HCS

Printing date 10/09/2018

Reviewed on 04/12/2018

### \* 1 Identification

- **Product identifier**
- **Trade name: ALT Catalyst Powder**
- **Article number:** 130-000-xxxU
- **Application of the substance / the mixture** Hardening agent/ Curing agent
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**

ALT Global, LLC  
 12 Dwight Place  
 Fairfield, NJ 07004  
 USA  
 Tel.: +1 973-287-6158  
 Fax: +1 973-287-6168  
 Internet: www.altglobal.com

- **Information department:**

Division product safety  
 Mr. Bonyadlou  
 Tel.: +1 973-287-6158  
 E-Mail: mbonyadlou@altglobal.com

- **Emergency telephone number:**

For Chemical Emergency  
 Spill Leak Fire Exposure or Accident  
 Call CHEMTREC Day or Night

DOMESTIC NORTH AMERICA 800-424-9300

### 2 Hazard(s) identification

- **Classification of the substance or mixture**



GHS02 Flame

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



GHS08 Health hazard

Repr. 1A H360 May damage fertility or the unborn child.



GHS07

Eye Irrit. 2A H319 Causes serious eye irritation.

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

- **Label elements**

- **GHS label elements**

The product is classified and labeled according to the Globally Harmonized System (GHS).

(Contd. on page 2)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 10/09/2018

Reviewed on 04/12/2018

Trade name: ALT Catalyst Powder

(Contd. of page 1)

· **Hazard pictograms**



GHS02 GHS07 GHS08

· **Signal word** Danger

· **Hazard-determining components of labeling:**

dicyclohexyl phthalate  
 dibenzoyl peroxide

· **Hazard statements**

H242 Heating may cause a fire.  
 H319 Causes serious eye irritation.  
 H317 May cause an allergic skin reaction.  
 H360 May damage fertility or the unborn child.

· **Precautionary statements**

P201 Obtain special instructions before use.  
 P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.  
 P234 Keep only in original container.  
 P280 Wear protective clothing/ eye protection.  
 P308+P313 IF exposed or concerned: Get medical advice/attention.  
 P370+P378 In case of fire: Use for extinction: CO2, powder or water spray.

· **Classification system:**

· **NFPA ratings (scale 0 - 4)**



Health = 2  
 Fire = 2  
 Reactivity = 2

The substance possesses oxidizing properties.

· **HMIS-ratings (scale 0 - 4)**



Health = \*2  
 Fire = 2  
 Reactivity = 2

· **Other hazards**

· **Results of PBT and vPvB assessment**

· **PBT:** Does not meet the PBT-criteria of Annex XIII of REACH (self assessment).  
 · **vPvB:** Does not meet the vPvB-criteria of Annex XIII of REACH (self assessment).

## 3 Composition/information on ingredients

· **Chemical characterization: Mixtures**

· **Description:** Mixture of the substances listed below with nonhazardous additions.

· **Dangerous components:**

CAS: 94-36-0 Index number: 617-008-00-0	dibenzoyl peroxide	25-50%
CAS: 84-61-7 Index number: 607-719-00-4	dicyclohexyl phthalate	25-50%

US

(Contd. on page 3)

## Safety Data Sheet acc. to OSHA HCS

Printing date 10/09/2018

Reviewed on 04/12/2018

Trade name: **ALT Catalyst Powder**

(Contd. of page 2)

### 4 First-aid measures

· **Description of first aid measures**

· **General information:**

Immediately remove any clothing soiled by the product.  
Take affected persons out of danger area and lay down.  
Involve doctor immediately.

· **After inhalation:**

In case of unconsciousness place patient stably in side position for transportation.  
Take affected persons into fresh air and keep quiet.  
Seek medical treatment.

· **After skin contact:**

Immediately wash with water and soap and rinse thoroughly.  
If skin irritation continues, consult a doctor.  
Remove contaminated clothing immediately.

· **After eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.

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

· **Information for doctor:**

For people with pre-existing skin, respiratory and / or central nervous system diseases have an increased risk for exposure to this material could be.

· **Most important symptoms and effects, both acute and delayed**

Skin sensitization.  
Suspected of affecting fertility or damaging the unborn child.  
Irritant to skin, eyes and respiratory system.

· **Indication of any immediate medical attention and special treatment needed**

No further relevant information available.

### 5 Fire-fighting measures

· **Extinguishing media**

· **Suitable extinguishing agents:**

CO<sub>2</sub>, sand, extinguishing powder, foam.  
Water spray

· **For safety reasons unsuitable extinguishing agents:**

Halone  
Water with full jet

· **Special hazards arising from the substance or mixture**

Can form explosive gas-air mixtures.  
At the temperature of self-accelerating decomposition (+60 °C), the product undergoes explosive decomposition.

ATTENTION: Re-ignition possible; the product maintains combustion processes.

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

Carbon monoxide (CO)

CO<sub>2</sub>

Benzoic acid, benzene

· **Advice for firefighters**

· **Protective equipment:**

Do not inhale explosion gases or combustion gases.  
Wear fully protective suit.  
Wear self-contained respiratory protective device.

· **Additional information**

Cool endangered receptacles with water spray.

Evacuate all non- essential persons. Extinguish a small fire with powder or carbon dioxide then apply water to prevent re-ignition.

## Safety Data Sheet acc. to OSHA HCS

Printing date 10/09/2018

Reviewed on 04/12/2018

Trade name: **ALT Catalyst Powder**

(Contd. of page 3)

### 6 Accidental release measures

· **Personal precautions, protective equipment and emergency procedures**

Do not breathe dust.



Keep away from ignition sources

Avoid static electricity.

Cool case of further temperature with a jet of water from a safe distance.

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

Wear protective equipment. Keep unprotected persons away.

· **Environmental precautions:**

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

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

· **Methods and material for containment and cleaning up:**

Do not flush with water or aqueous cleansing agents

Ensure adequate ventilation.

Send for recovery or disposal in suitable receptacles.

First of all dampened with water.

· **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.

· **Protective Action Criteria for Chemicals**

· **PAC-1:**

94-36-0	dibenzoyl peroxide	15 mg/m <sup>3</sup>
7631-86-9	silicon dioxide, chemically prepared	18 mg/m <sup>3</sup>

· **PAC-2:**

94-36-0	dibenzoyl peroxide	1,200 mg/m <sup>3</sup>
7631-86-9	silicon dioxide, chemically prepared	740 mg/m <sup>3</sup>

· **PAC-3:**

94-36-0	dibenzoyl peroxide	7,000 mg/m <sup>3</sup>
7631-86-9	silicon dioxide, chemically prepared	4,500 mg/m <sup>3</sup>

### 7 Handling and storage

· **Handling:**

· **Precautions for safe handling**

Do not refill residue into storage receptacles.

Keep receptacles tightly sealed.

Store in cool, dry place in tightly closed receptacles.

Keep away from heat and direct sunlight.

Wear suitable respiratory protective device when decanting larger quantities without extractor facilities.

Restrict the quantity stored at the work place.

Handle with care. Avoid jolting, friction and impact.

Ensure good ventilation/exhaustion at the workplace.

at least 7-fold air changes per hour

· **Information about protection against explosions and fires:**

Highly volatile, flammable constituents are released during processing.

Keep ignition sources away - Do not smoke.

Use explosion-proof apparatus / fittings and spark-proof tools.

Dust can combine with air to form an explosive mixture.

(Contd. on page 5)

## Safety Data Sheet acc. to OSHA HCS

Printing date 10/09/2018

Reviewed on 04/12/2018

**Trade name: ALT Catalyst Powder**

(Contd. of page 4)

Substance/product is oxidizing when dry.

- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:**
  - Store only in the original receptacle.
  - Prevent any seepage into the ground.
  - Use only receptacles specifically permitted for this substance/product.
  - Store in accordance with local and national regulations.
  - Store in a cool location.
- **Information about storage in one common storage facility:**
  - Organic peroxides shall not be parked or stored together with heavy metal compounds or amines or their preparations.
- **Further information about storage conditions:**
  - Store in cool, dry conditions in well sealed receptacles.
  - Store receptacle in a well ventilated area.
  - Protect from contamination.
  - Store in a cool place.
  - Keep receptacle tightly sealed.
- **Specific end use(s)** For maximum quality store below : +25°C (77 °F)

### 8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **Control parameters**

· **Components with limit values that require monitoring at the workplace:**

**94-36-0 dibenzoyl peroxide (25-50%)**

PEL	Long-term value: 5 mg/m <sup>3</sup>
REL	Long-term value: 5 mg/m <sup>3</sup>
TLV	Long-term value: 5 mg/m <sup>3</sup>

- **Additional information:** The lists that were valid during the creation were used as basis.
- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**
  - Avoid contact with the eyes and skin.
  - Immediately remove all soiled and contaminated clothing.
  - Wash hands before breaks and at the end of work.
  - Use skin protection cream for skin protection.
  - Keep away from foodstuffs, beverages and feed.
  - Avoid close or long term contact with the skin.
  - Avoid contact with the eyes.
- **Breathing equipment:** Not necessary if room is well-ventilated.
- **Protection of hands:**



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

Preventive skin protection by use of skin-protecting agents is recommended.

After use of gloves apply skin-cleaning agents and skin cosmetics.

Check protective gloves prior to each use for their proper condition.

(Contd. on page 6)

## Safety Data Sheet acc. to OSHA HCS

Printing date 10/09/2018

Reviewed on 04/12/2018

**Trade name: ALT Catalyst Powder**

(Contd. of page 5)

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

· **Material of gloves**

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**

Our Recommendation is mainly on a one-time use as a short-term protection Liquid splashes. For other applications, you should contact a glove manufacturer.

The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **For the permanent contact in work areas without heightened risk of injury (e.g. Laboratory) gloves made of the following material are suitable:**

- Fluorocarbon rubber (Viton)
- Neoprene gloves
- Butyl rubber, BR

· **For the permanent contact gloves made of the following materials are suitable:** Butyl rubber, BR

· **Not suitable are gloves made of the following materials:** Leather gloves

· **Eye protection:**



Tightly sealed goggles

· **Body protection:**



Protective work clothing

### 9 Physical and chemical properties

· **Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

**Form:** Powder

**Color:** White

· **Odor:** Weak, characteristic

· **Odor threshold:** not be determined.

· **pH-value:** Not applicable.

· **Change in condition**

**Melting point/Melting range:** Decomposes before melting.

**Boiling point/Boiling range:** Not applicable.

· **Flash point:** Not applicable.

· **Flammability (solid, gaseous):** May cause fire.

· **Decomposition temperature:** 55 °C (131 °F) (SADT)

· **Auto igniting:** Product is not selfigniting.

· **Danger of explosion:** Product does not present an explosion hazard.

· **Explosion limits:**

**Lower:** Not determined.

(Contd. on page 7)

## Safety Data Sheet

### acc. to OSHA HCS

Printing date 10/09/2018

Reviewed on 04/12/2018

Trade name: ALT Catalyst Powder

(Contd. of page 6)

<b>Upper:</b> · <b>Oxidizing properties</b>	Not determined. unavailable
· <b>Vapor pressure:</b>	Not applicable.
· <b>Density at 20 °C (68 °F):</b>	1.23 g/cm <sup>3</sup> (10.26 lbs/gal) (EN ISO 2811-1)
· <b>Relative density</b>	Not determined.
· <b>Vapor density</b>	Not applicable.
· <b>Evaporation rate</b>	Not applicable.
· <b>Solubility in / Miscibility with Water:</b>	Not miscible or difficult to mix.
· <b>Partition coefficient (n-octanol/water):</b>	Not determined.
· <b>Viscosity:</b>	
<b>Dynamic:</b>	Not applicable.
<b>Kinematic:</b>	Not applicable.
· <b>Solvent content:</b>	
<b>Water:</b>	2.0 %
<b>VOC content:</b>	0.00 %
	0.0 g/l / 0.00 lb/gal
· <b>Other information</b>	No further relevant information available.

## 10 Stability and reactivity

- **Reactivity** see Section 10.2
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:**  
 SADT - (Self accelerating decomposition temperature) is the lowest temperature in the self-accelerating decomposition may occur in the shipping container.  
 A dangerous self-accelerating decomposition reaction and, under certain circumstances, explosion or fire can be caused by thermal decomposition at or above the indicated temperature: 55 °C. Contact with incompatible substances can cause decomposition at or below the SADT 55 °C rise.  
 To avoid thermal decomposition do not overheat.  
 Shock, avoid friction, heat, sparks, static electricity.
- **Possibility of hazardous reactions**  
 Reacts with alkali, amines and strong acids.  
 Reacts with certain metals.
- **Conditions to avoid** To maintain the quality under storage temperatures: 77 °F
- **Incompatible materials:**  
 Avoid contact with rust, iron and copper. Hazardous decomposition on contact with incompatible materials such as acids, alkalis, heavy metals and reducing agents. Do not mix with peroxide accelerators. Only use stainless steel according to DIN 1.4571, PVC, polyethylene, or glass-lined equipment.
- **Hazardous decomposition products:**  
 Benzoic acid  
 Benzene
- **Additional information:**  
 Emergency procedures will vary depending on individual circumstances. The customer should have a contingency plan to the workplace may be present.

## 11 Toxicological information

- **Information on toxicological effects** There were no toxicological findings to the mixture.

(Contd. on page 8)

US

## Safety Data Sheet acc. to OSHA HCS

Printing date 10/09/2018

Reviewed on 04/12/2018

**Trade name: ALT Catalyst Powder**

(Contd. of page 7)

· **Acute toxicity:**

· **LD/LC50 values that are relevant for classification:**

**ATE (Acute Toxicity Estimate)**

Oral	LD50	>4,145 mg/kg (mouse)
Inhalative	LC50/4h	>50.4 mg/l (rat)

**94-36-0 dibenzoyl peroxide**

Oral	LD50	>2,000 mg/kg (mouse)
Inhalative	LC50	>24,300 mg/l (rat) (Staub)
	LC50/4h	>24.3 mg/l (rat) (Staub)

**84-61-7 dicyclohexyl phthalate**

Oral	LD50	>5,000 mg/kg (rat)
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· **Primary irritant effect:**

- **on the skin:** very mild irritant
- **on the eye:** Irritating effect.
- **Sensitization:** Sensitization possible through skin contact.

· **Subacute to chronic toxicity:**

**94-36-0 dibenzoyl peroxide**

Oral	NOAEL	200 mg/kg/d (rat) adverse effect observed 500 mg/kg/d (unknown) Concentration at which no adverse effect was observed.
	NOAEL/29d	1,000 mg/kg/d (unknown) Concentration at which no adverse effect was observed.

**84-61-7 dicyclohexyl phthalate**

Oral	NOAEL	50 mg/kg/d (rat) (subchronische orale Toxizität (90d)) Konzentration, bei der kein schädlicher Effekt beobachtet wurde.
		Entwicklungstoxizität: Konzentration, bei der kein schädlicher Effekt beobachtet wurde; 250 mg/kg/d (oral) (Ratte)
		Fruchtbarkeit: Konzentration, bei der kein schädlicher Effekt beobachtet wurde; 16-21 mg/kg/d (oral) (Ratte)

· **Additional toxicological information:**

The product shows the following dangers according to internally approved calculation methods for preparations:  
Irritant

· **Carcinogenic categories**

· **IARC (International Agency for Research on Cancer)**

94-36-0	dibenzoyl peroxide	3
7631-86-9	silicon dioxide, chemically prepared	3

· **NTP (National Toxicology Program)**

None of the ingredients is listed.

· **OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.



## Safety Data Sheet acc. to OSHA HCS

Printing date 10/09/2018

Reviewed on 04/12/2018

**Trade name: ALT Catalyst Powder**

(Contd. of page 8)

### 12 Ecological information

· **Toxicity**

· **Aquatic toxicity:**

**94-36-0 dibenzoyl peroxide**

EC50	35 mg/l (bacteria) (Atmungsinhibierungstest für Belebtschlamm) 0,5 h
EC50/48h	0.11 mg/l (daphnia magna) (OECD-Richtlinie 202)
LC50/96h	0.06 mg/l (fish)
NOEC/72h	0.02 mg/l (Pseudokirchneriella subcapitata) (OECD 201)
EC50/72h	0.0711 mg/l (Pseudokirchneriella subcapitata) (OECD 201)
NOEC	0.077 mg/l (daphnia magna) (OECD-Richtlinie 202) 48 h
	0.0316 mg/l (Rainbow trout) OECD 203 96 h

**84-61-7 dicyclohexyl phthalate**

NOEL	>100 mg/l (bacteria) Activated sludge; 3h-Untere Wirkungsschwelle
EC50/48h	>2 mg/l (daphnia magna) max. erreichbare Konzentration
LC50/96h	>2 mg/l (Oryzias latipes) max. erreichbare Konzentration

· **Persistence and degradability** No further relevant information available.

· **Behavior in environmental systems:**

· **Bioaccumulative potential**

Bioaccumulation is not expected.

Dibenzoyl peroxide:

Partition coefficient: n-octanol/water : log Pow: 3.2 (20 °C)

· **Mobility in soil** No further relevant information available.

· **Ecotoxicological effects:**

· **Remark:** very toxic to aquatic organisms.

· **Remark:**

Abiotic degradation:

Half-life: 2.4 hours at 50 °C.

· **Additional ecological information:**

· **General notes:**

Water hazard class 1 (Self-assessment): slightly hazardous for water

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

· **Results of PBT and vPvB assessment**

· **PBT:** Does not meet the PBT-criteria of Annex XIII of REACH (self assessment).

· **vPvB:** Does not meet the vPvB-criteria of Annex XIII of REACH (self assessment).

· **Other adverse effects** No further relevant information available.

### 13 Disposal considerations

· **Waste treatment methods**

Hazardous waste according to Waste Catalogue (EWC). If recycling is not possible, waste must be in compliance with local regulations to be removed.

(Contd. on page 10)

## Safety Data Sheet acc. to OSHA HCS

Printing date 10/09/2018

Reviewed on 04/12/2018

**Trade name: ALT Catalyst Powder**

(Contd. of page 9)

**· Recommendation:**







Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

Uncured product residues are special waste.  
 Cured product residues are not hazardous waste.  
 Must be specially treated adhering to official regulations.

**· Uncleaned packagings:**

**· Recommendation:** Disposal must be made according to official regulations.

### 14 Transport information

<b>· UN-Number</b>	UN3106
<b>· DOT, ADR, IMDG, IATA</b>	UN3106
<b>· UN proper shipping name</b>	Organic peroxide type D, solid
<b>· DOT</b>	3106 Organic peroxide type D, solid
<b>· ADR</b>	ORGANIC PEROXIDE TYPE D, SOLID, MARINE POLLUTANT
<b>· IMDG</b>	ORGANIC PEROXIDE TYPE D, SOLID
<b>· IATA</b>	ORGANIC PEROXIDE TYPE D, SOLID
<b>· Transport hazard class(es)</b>	
<b>· DOT</b>	
	
<b>· Label</b>	5.2
<b>· ADR, IATA</b>	
	
<b>· Class</b>	5.2 Organic peroxides
<b>· Label</b>	5.2
<b>· IMDG</b>	
 	
<b>· Class</b>	5.2 Organic peroxides
<b>· Label</b>	5.2
<b>· Packing group</b>	Void
<b>· DOT, ADR, IMDG, IATA</b>	Void
<b>· Environmental hazards:</b>	
<b>· Marine pollutant:</b>	Yes Symbol (fish and tree)
<b>· Special precautions for user</b>	Warning: Organic peroxides

(Contd. on page 11)

## Safety Data Sheet acc. to OSHA HCS

Printing date 10/09/2018

Reviewed on 04/12/2018

**Trade name: ALT Catalyst Powder**

(Contd. of page 10)

<b>· Danger code (Kemler):</b>	-
<b>· EMS Number:</b>	F-J,S-R
<b>· Stowage Category</b>	D
<b>· Stowage Code</b>	SW1 Protected from sources of heat.
<b>· Segregation Code</b>	SG35 Stow "separated from" acids. SG36 Stow "separated from" alkalis.
<b>· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b>	Not applicable.
<b>· Transport/Additional information:</b>	
<b>· ADR</b>	
<b>· Excepted quantities (EQ)</b>	Code: E0 Not permitted as Excepted Quantity
<b>· IMDG</b>	
<b>· Limited quantities (LQ)</b>	500 g
<b>· Excepted quantities (EQ)</b>	Code: E0 Not permitted as Excepted Quantity
<b>· UN "Model Regulation":</b>	UN 3106 ORGANIC PEROXIDE TYPE D, SOLID, 5.2

### 15 Regulatory information

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

**· Section 355 (extremely hazardous substances):**

None of the ingredient is listed.

**· Section 313 (Specific toxic chemical listings):**

94-36-0 | dibenzoyl peroxide

**· TSCA (Toxic Substances Control Act):**

All ingredients are listed.

**· Proposition 65**

**· Chemicals known to cause cancer:**

None of the ingredients is listed.

**· Chemicals known to cause reproductive toxicity for females:**

None of the ingredients is listed.

**· Chemicals known to cause reproductive toxicity for males:**

None of the ingredients is listed.

**· Chemicals known to cause developmental toxicity:**

None of the ingredients is listed.

**· Cancerogenity categories**

**· EPA (Environmental Protection Agency)**

None of the ingredients is listed.

**· TLV (Threshold Limit Value established by ACGIH)**

94-36-0 | dibenzoyl peroxide

A4

**· NIOSH-Ca (National Institute for Occupational Safety and Health)**

None of the ingredients is listed.

(Contd. on page 12)

## Safety Data Sheet acc. to OSHA HCS

Printing date 10/09/2018

Reviewed on 04/12/2018

Trade name: **ALT Catalyst Powder**

(Contd. of page 11)

- **National regulations:**
- **Information about limitation of use:**  
Employment restrictions concerning young persons must be observed.  
Employment restrictions concerning pregnant and lactating women must be observed.
- **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

### \* 16 Other information

These figures relate to the product as delivered.

Sector of Use

Relevant identified uses of the mixture

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

SU19 Building and construction work

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

Uses advised against

SU21 Consumer uses: Private households / general public / consumers

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

#### · **Training hints**

Teaching about hazards and precautions to hand the operating instructions (Technical Rule 555).  
Instruction must take place before the start of employment and at least annually thereafter.

#### · **Date of preparation / last revision 10/09/2018 / 31**

#### · **Abbreviations and acronyms:**

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

ICAO: International Civil Aviation Organisation

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

ACGIH: American Conference of Governmental Industrial Hygienists

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)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

VOC: Volatile Organic Compounds (USA, EU)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

vPvB: very Persistent and very Bioaccumulative

NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety & Health

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

Org. Perox. D: Organic peroxides – Type C/D

Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A

Skin Sens. 1: Skin sensitisation – Category 1

Repr. 1A: Reproductive toxicity – Category 1A

#### · **Sources**

[www.gestis.de](http://www.gestis.de)

[www.echa.eu](http://www.echa.eu)

[logkow.cisti.nrc.ca](http://logkow.cisti.nrc.ca)

- \* **Data compared to the previous version altered.**