

Printing date 02/16/2021 Reviewed on 12/14/2020

### 1 Identification

- · Product identifier
- · Trade name: ALT 900 Catalyst Powder
- · Article number: 900-000-yyyU
- · 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.



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).

· Hazard pictograms





GHS02 GHS07

- · Signal word Danger
- Hazard-determining components of labeling: dibenzoyl peroxide

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#### Hazard statements

H242 Heating may cause a fire.

H319 Causes serious eye irritation.

H317 May cause an allergic skin reaction.

#### **Precautionary statements**

Keep away from heat/sparks/open flames/hot surfaces. - No smoking. P210

P234 Keep only in original container. P273 Avoid release to the environment. P280 Wear protective clothing/ eye protection.

P370+P378 In case of fire: Use for extinction: CO2, powder or water spray.

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

- · Classification system:
- NFPA ratings (scale 0 4)



Health = 2 Fire = 3Reactivity = 0

The substance possesses oxidizing properties.

HMIS-ratings (scale 0 - 4)



Health = 2

REACTIVITY 0 Reactivity = 0

- 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.

<ul> <li>Dangerous</li> </ul>	components	:
-------------------------------	------------	---

CAS: 94-36-0 dibenzoyl peroxide Index number: 617-008-00-0

25-50%

## 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.

If symptoms or in all cases of doubt, see a doctor. Never give anything by mouth to an unconscious person. If unconscious, place in a stable lateral position and seek medical advice.

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.

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

· After swallowing:

Rinse mouth with water (only if person is conscious).

Do not induce vomiting; immediately call for medical help.

- · Information for doctor:
- · Most important symptoms and effects, both acute and delayed 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

In the case of decomposition without fire, there is a risk of explosion due to the resulting vapour-air mixture. Caution: reignition may occur. Decomposition under the influence of heat. Do not inhale in case of fire and/or explosion.

At the temperature of self-accelerating decomposition (+55 °C), the product undergoes explosive decomposition.

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

In Fire will produce dense black smoke. Exposure to decomposition products may cause a health hazard. 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.

## 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.

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#### · 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/m³
7631-86-9	-9 silicon dioxide, chemically prepared	
PAC-2:		
94-36-0	dibenzoyl peroxide	1,200 mg/m³
7631-86-9	silicon dioxide, chemically prepared	740 mg/m³
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.

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.

Use only receptacles specifically permitted for this substance/product.

Prevent any seepage into the ground.

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.

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## · Further information about storage conditions:

Store in cool, dry conditions in well sealed receptacles.

Store in a cool place.

max. Storage temperature 30 ° C

Store receptacle in a well ventilated area.

Protect from contamination.

Keep contents moist.

Keep receptacle tightly sealed.

· Storage class:

Lagerklasse 5.2 "Organische Peroxide und selbstzersetzliche Gefahrstoffe" nach TRGS 510

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

# 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/m³
REL Long-term value: 5 mg/m³
TLV Long-term value: 5 mg/m³

- 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:

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

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.

### 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.

Protective gloves according to EN 374

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### · 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:

Neoprene gloves

Nitrile rubber, NBR

- · 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 a General Information Appearance:	and chemical properties	
Form:	Powder	
Color:	White	
· Odor:	Weak, characteristic	
· Odor threshold:	not be determined.	
	7	

· Odor threshold:	not be determined.	
· pH-value at 20 °C (68 °F):	7	
<ul> <li>Change in condition</li> <li>Melting point/Melting range:</li> <li>Boiling point/Boiling range:</li> </ul>	58 °C (136.4 °F) (Dekompozycja) Not applicable (decomposes)	
· Flash point:	Not applicable.	
· Flammability (solid, gaseous):	Decomposition products may be flammable. May cause fire.	
· Decomposition temperature:	Decomposition temperature SADT - (Self Accelerating Decomposition Temperature) is the lowest temperature at which self accelerating decomposition may occur in the transport packaging. A dangerous self-accelerating decomposition reaction under unfavorable conditions, explosions or fire may be caused by thermal decomposition at or above the SADT.	

packaging. A dangerous self-accelerating decomposition reaction under unfavorable conditions, explosions or fire may be caused by thermal decomposition at or above the SADT. Contact with incompatible substances may also cause decomposition below the SADT.

Temperature of self-accelerating decomposition (SADT): 55 °C

Auto igniting: Decomposition product(s) may be flammable.Danger of explosion: Product does not present an explosion hazard.

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Not determined. Not determined. unavailable  Not applicable.  Not determined.  640 kg/m³ Not determined. Not applicable. Not applicable. Not applicable. Not miscible or difficult to mix.
Not determined. unavailable  Not applicable.  Not determined.  640 kg/m³  Not determined.  Not applicable.  Not applicable.  Not applicable.
unavailable  Not applicable.  Not determined.  640 kg/m³  Not determined.  Not applicable.  Not applicable.
Not applicable.  Not determined.  640 kg/m³  Not determined.  Not applicable.  Not applicable.
Not determined.  640 kg/m³  Not determined.  Not applicable.  Not applicable.
640 kg/m³ Not determined. Not applicable. Not applicable.
Not determined. Not applicable. Not applicable.
Not applicable. Not applicable.
Not applicable.
· ·
Not miscible or difficult to mix.
Not miscible or difficult to mix.
log POW 3.2 at 22 °C (OECD 107)
Not applicable.
Not applicable.
0.00 %
A k t i v s a u e r s t o f 3,24 - 3,47 %
0.

# 10 Stability and reactivity

- · Reactivity see Section 10.2
- · Chemical stability
- · Thermal decomposition / conditions to be avoided:

ADT - (Self-accelerating decomposition temperature) is the lowest temperature at which self-accelerating decomposition may occur in the transport packaging. A dangerous self-accelerating decomposition reaction, explosion or fire under unfavourable circumstances, may be caused by thermal decomposition at or above the temperature specified: 55 °C. Contact with incompatible substances may cause decomposition at or below the SADT 55 °C.

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

Shock, avoid friction, heat, sparks, static electricity.

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:

In case of fire: see section 5.

SADT - (self-accelerating decomposition temperature) is the lowest temperature at which self-accelerating decomposition can occur in the transport packaging. A dangerous self-accelerating decomposition reaction under unfavorable circumstances, explosion or fire can be caused by thermal decomposition at or above the SADT. Contact with incompatible substances can cause decomposition at or below the SADT.

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### · 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.
- · Acute toxicity:

7 10 010 1071		
· LD/LC50 values that are relevant for classification:		
ATE (Acute Toxicity Estimate)		
Oral	LD50	>2,010 mg/kg
94-36-0 dibenzoyl peroxide		
Oral	LD50	>2,000 mg/kg (mouse)
Inhalative	LC50	>24,300 mg/l (rat) (Staub)
94-49-5 Ethylene dibenzoate		
Oral	LD50	>2,000 mg/kg (rat) (OECD 423)
	NOAEL	300 mg/kg (rat) (OECD 422)

- · Primary irritant effect:
- on the skin: Irritability
- on the eye: Irritating effect.
- · Sensitization: Sensitization possible through skin contact.

	Contract Contract possible an ough of the contract.		
	· Subacute to chro		onic toxicity:
94-36-0 dibenzoyl peroxide		l 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.

## · Additional toxicological information:

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

Irritant

· Carcinogenic categories

· IARC (Inte	rnational 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.				

# 12 Ecological information

•	Toxicity
	·Oxioity

## 94-49-5 Ethylene dibenzoate

EC50/3h (static) >1,280 mg/l (activated sludge) (OECD 209)

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EC50/21d	1.4 mg/l (daphnia magna) (OECD 211)
EC10/21d (static)	0.79 mg/l (daphnia magna) (OECD 211)

### · Aquatic toxicity:

NOEC

### 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-Richtline 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)

0.077 mg/l (daphnia magna) (OECD-Richtline 202)

48 h

0.0316 mg/l (Rainbow trout)

OECD 203 96 h

### 94-49-5 Ethylene dibenzoate

LC50/96h (static) >0.434 mg/l (Danio rerio) (Acute toxicity to fish)

ErC50/72h (static) >0.87 mg/l (Pseudokirchneriella subcapitata) (OECD 201) NOEC/72h (static) 0.045 mg/l (Pseudokirchneriella subcapitata) (OECD 201)

NOEC/21d (static) 0.65 mg/l (daphnia magna) (OECD 211) NOEC (static) 0.073 mg/l (Danio rerio) (OECD 210)

## · Persistence and degradability

Ethylene glycol dibenzoate

Biodegradability: Type of test: Closed bottle test

Biological degradation: 81 %

Exposure time: 28 d

Method: OECD test guideline 301D

GLP: yes

Easily biodegradable.

### Dibenzoyl peroxide

Biodegradability: Result: Potentially biodegradable

· Behavior in environmental systems:

#### · Bioaccumulative potential

Dibenzoyl peroxide:

Partition coefficient: n-octanol/water : log Pow: 3.2 (20 °C) · **Mobility in soil** Dibenzoyl peroxide log Koc: 6310 (22 °C)

· Ecotoxical effects:

#### · Remark:

very toxic to aquatic organisms.

Toxic for fish

# · Additional ecological information:

#### General notes:

Water hazard class 2 (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.

Also poisonous for fish and plankton in water bodies.

Toxic for aquatic organisms

## 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).

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· 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.

· Recommendation:



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

Must be specially treated adhering to official regulations.

- · Uncleaned packagings:
- · Recommendation:

Packaging must be emptied of all residues and must be disposed of properly in accordance with the statutory provisions.

Packaging that has not been completely emptied must be disposed of in coordination with the regional disposal company.

Disposal must be made according to official regulations.

# 14 Transport information

nzoyl
zoyl
zoyl
ZC

- · Transport hazard class(es)
- · DOT





• Class 5.2 Organic peroxides • Label 5.2

· ADR



· Class 5.2 (P1) Organic peroxides

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· Label 5.2

· IMDG



5.2 Organic peroxides · Class

 Label 5.2

·IATA



5.2 Organic peroxides Class

5.2 · Label

· Packing group

DOT, ADR, IMDG, IATA Void

· Environmental hazards:

· Marine pollutant: Yes

Symbol (fish and tree)

· Special marking (ADR): Symbol (fish and tree)

· Special precautions for user Warning: Organic peroxides

· Hazard identification number (Kemler code): 539 · EMS Number: F-J,S-R

 Stowage Category D

· Stowage Code SW1 Protected from sources of heat. · Segregation Code SG35 Stow "separated from" SGG1-acids SG36 Stow "separated from" SGG18-alkalis.

SG72 See 7.2.6.3.2.

Transport in bulk according to Annex II of

MARPOL73/78 and the IBC Code Not applicable.

· Transport/Additional information:

· DOT

· Remarks: Classification according to viscosity clause [(173.120 (2)

(d) and 173.121 (b) (iv)]

Special marking with the symbol (fish and tree).

· ADR

 Excepted quantities (EQ) Code: E0

Not permitted as Excepted Quantity

· IMDG

· Limited quantities (LQ) 500 g Excepted quantities (EQ) Code: E0

Not permitted as Excepted Quantity

· UN "Model Regulation": UN 3106 ORGANIC PEROXIDE TYPE D, SOLID

(DIBENZOYL PEROXIDE), 5.2



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# 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 components have the value ACTIVE.

· Hazardous Air Pollutants

None of the ingredients is 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)

94-36-0 dibenzoyl peroxide

A4

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

None of the ingredients is listed.

- · 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



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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 02/16/2021 / -
- 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 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

DOT: US Department of Transportation

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)

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

### Sources

www.gestis.de

www.echa.eu

logkow.cisti.nrc.ca

\* Data compared to the previous version altered.

US -