according to Regulation (EC) No 1907/2006

International Calibration Standard: ICS-R3 ("DCHA-Rho")

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

#### 1.1. Product identifier

International Calibration Standard: ICS-R3 ("DCHA-Rho")

Abbreviation: DCHA-Rho; Rho Standard

CAS No: 16892-01-6

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

#### Use of the substance/mixture

Industrial use

## Uses advised against

Any non-intended use.

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

Company name: Labor Veritas AG Place: CH-8027 Zürich

Telephone: +41 44 283 29 37 Telefax: +41 44 201 42 49

e-mail: admin@laborveritas.ch

Contact person: Markus Lüönd

e-mail: m.luond@laborveritas.ch www.laborveritas.ch

Responsible Department:

Dr. Gans-Eichler

e-mail: info@tge-consult.de

Chemieberatung GmbH Tel.: +49(0)2534 6441185 Otto-Hahn-Str. 36 www.tge-consult.de

D-48161 Münster

**1.4. Emergency telephone** +41 44 283 29 37 Only available during office hours.

number:

### **Further Information**

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (amended by Regulation (EU) No 2020/878)

# **SECTION 2: Hazards identification**

## 2.1. Classification of the substance or mixture

### Regulation (EC) No 1272/2008

This substance is not classified as hazardous in accordance with Regulation (EC) No 1272/2008.

# 2.2. Label elements

# Additional advice on labelling

Labelling according to Regulation (EC) No. 1272/2008 [CLP]: none

# 2.3. Other hazards

The substances in the mixture (>0,1%) do not meet the PBT/vPvB criteria according to REACH, annex XIII.

This product does not contain a substance (> 0,1 %) that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

No risks worthy of mention. Please observe the information on the safety data sheet at all times.

# **SECTION 3: Composition/information on ingredients**

## 3.1. Substances

#### Chemical characterization

The product does not contain dangerous substances according to REGULATION (EU) No. 2020/878, Annex II,

Part A, 3.1/3.2. that must be mentioned in Chapter 3.

Sum formula: C 32 H 53 NO 5 & C 33 H 55 NO 5

Molecular weight: 534 & 546 Da

according to Regulation (EC) No 1907/2006

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#### **Hazardous components**

none (according to Regulation (EC) No 1907/2006 (REACH))

#### **Further Information**

Product does not contain listed SVHC substances > 0,1 % according to Regulation (EC) No. 1907/2006 Article 59 (REACH)

# **SECTION 4: First aid measures**

## 4.1. Description of first aid measures

#### General information

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

#### After inhalation

In case of accident by inhalation: remove casualty to fresh air and keep at rest. In case of respiratory tract irritation, consult a physician.

#### After contact with skin

Gently wash with plenty of soap and water. In case of skin irritation, seek medical treatment.

#### After contact with eves

Rinse cautiously with water for several minutes. In case of troubles or persistent symptoms, consult an ophthalmologist.

## After ingestion

Rinse mouth thoroughly with water. Let water be drunken in little sips (dilution effect). Do NOT induce vomiting. In all cases of doubt, or when symptoms persist, seek medical advice.

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

No information available.

#### 4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

## **SECTION 5: Firefighting measures**

# 5.1. Extinguishing media

#### Suitable extinguishing media

Carbon dioxide (CO2). Dry extinguishing powder. alcohol resistant foam. Atomized water.

#### Unsuitable extinguishing media

High power water jet.

## 5.2. Special hazards arising from the substance or mixture

Can be released in case of fire: Carbon monoxide Carbon dioxide (CO2). Nitrogen oxides (NOx).

## 5.3. Advice for firefighters

In case of fire: Wear self-contained breathing apparatus.

### Additional information

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

 $\label{lem:co-ordinate} \mbox{ Co-ordinate fire-fighting measures to the fire surroundings.}$ 

# **SECTION 6: Accidental release measures**

# 6.1. Personal precautions, protective equipment and emergency procedures

#### General advice

Avoid dust formation.

Do not breathe dust.

according to Regulation (EC) No 1907/2006

## International Calibration Standard: ICS-R3 ("DCHA-Rho")

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#### For non-emergency personnel

Wear personal protection equipment (refer to section 8).

### For emergency responders

No special measures are necessary.

#### 6.2. Environmental precautions

Discharge into the environment must be avoided.

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

#### For containment

Take up mechanically.

Treat the recovered material as prescribed in the section on waste disposal.

#### For cleaning up

Clean contaminated objects and areas thoroughly observing environmental regulations.

### 6.4. Reference to other sections

Safe handling: see section 7

Personal protection equipment: see section 8

Disposal: see section 13

# **SECTION 7: Handling and storage**

## 7.1. Precautions for safe handling

## Advice on safe handling

Wear personal protection equipment (refer to section 8).

# Advice on protection against fire and explosion

Usual measures for fire prevention. Dust clouds may present an explosion hazard.

## Advice on general occupational hygiene

Always close containers tightly after the removal of product. Do not eat, drink, smoke or sneeze at the workplace. Wash hands before breaks and after work.

# Further information on handling

Avoid generation of dust.

General protection and hygiene measures: refer to chapter 8

# 7.2. Conditions for safe storage, including any incompatibilities

### Requirements for storage rooms and vessels

Keep container tightly closed in a cool, well-ventilated place.

### Hints on joint storage

Do not store together with: Explosives. Oxidizing solids. Oxidizing liquids. Radioactive substances. Infectious substances. Food and animal feedingstuff.

## Further information on storage conditions

Keep the packing dry and well sealed to prevent contamination and absorbtion of humidity.

Recommended storage temperature: -20 / -10°C

Protect against: frost. UV-radiation/sunlight. heat. Humidity

#### 7.3. Specific end use(s)

See section 1.

# **SECTION 8: Exposure controls/personal protection**

# 8.1. Control parameters

# Additional advice on limit values

To date, no national critical limit values exist.

#### 8.2. Exposure controls

according to Regulation (EC) No 1907/2006

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### Appropriate engineering controls

Technical measures and the application of suitable work processes have priority over personal protection equipment.

Dust should be exhausted directly at the point of origin.

### Individual protection measures, such as personal protective equipment

#### Eye/face protection

Dust protection goggles.

#### Hand protection

In case of prolonged or frequently repeated skin contact:

Wear suitable gloves.

Suitable material:

FKM (fluororubber). - Thickness of glove material: 0,4 mm

Breakthrough time >= 8 h

Butyl rubber. - Thickness of glove material: 0,5 mm

Breakthrough time >= 8 h

CR (polychloroprenes, Chloroprene rubber). - Thickness of glove material: 0,5 mm

Breakthrough time >= 8 h

NBR (Nitrile rubber). - Thickness of glove material: 0,35 mm

Breakthrough time >= 8 h

PVC (Polyvinyl chloride). - Thickness of glove material: 0,5 mm

Breakthrough time >= 8 h

The selected protective gloves have to satisfy the specifications of EU Directive EC/2016/425 and the standard EN 374 derived from it.

Before using check leak tightness / impermeability. In the case of wanting to use the gloves again, clean them before taking off and air them well.

#### Skin protection

Suitable protective clothing: Protective clothing.

Minimum standard for preventive measures while handling with working materials are specified in the TRGS 500 (D).

## Respiratory protection

With correct and proper use, and under normal conditions, breathing protection is not required.

Respiratory protection necessary at:

- -Exceeding exposure limit values
- -Insufficient ventilation and Generation/formation of dust

Suitable respiratory protective equipment: particulates filter device (DIN EN 143). type: P1-3

The filter class must be suitable for the maximum contaminant concentration (gas/vapour/aerosol/particulates) that may arise when handling the product. If the concentration is exceeded, self-contained breathing apparatus must be used.

#### Thermal hazards

Material handled at elevated temperature may cause thermal burns by contact with molten product.

#### **Environmental exposure controls**

No special precautionary measures are necessary.

## **SECTION 9: Physical and chemical properties**

#### 9.1. Information on basic physical and chemical properties

Physical state: Powder
Colour: white
Odour: characteristic
Odour threshold: not determined

#### Changes in the physical state

Melting point/freezing point: 183 - 185 °C

according to Regulation (EC) No 1907/2006

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Boiling point or initial boiling point and

not determined

boiling range:

Sublimation point:

Softening point:

Pour point:

Flash point:

not determined
not determined
not determined
not relevant

**Flammability** 

Solid/liquid: not determined
Gas: not relevant

**Explosive properties** 

Dust clouds may present an explosion hazard.

Lower explosion limits:

Upper explosion limits:

not relevant

not relevant

Auto-ignition temperature:

not relevant

Self-ignition temperature

Solid: not determined Gas: not relevant not determined Decomposition temperature: pH-Value: not determined Viscosity / dynamic: not determined Viscosity / kinematic: not relevant Flow time: not applicable Water solubility: slightly soluble

Solubility in other solvents

Soluble in: Alcohol.; Water. pH 8 - 11

Dissolution rate: not relevant Partition coefficient n-octanol/water: SECTION 12: Ecological information Dispersion stability: not relevant Vapour pressure: not determined not determined Density: Bulk density: not determined Relative vapour density: not relevant not determined Particle characteristics:

9.2. Other information

Information with regard to physical hazard classes

Sustaining combustion: Not sustaining combustion

Oxidizing properties

none

Other safety characteristics

Solvent separation test:

Solvent content:

not applicable
not determined
Solid content:

not determined
Evaporation rate:

not applicable

**Further Information**No information available.

according to Regulation (EC) No 1907/2006

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### **SECTION 10: Stability and reactivity**

#### 10.1. Reactivity

No information available.

## 10.2. Chemical stability

The product is chemically stable under recommended conditions of storage, use and temperature.

### 10.3. Possibility of hazardous reactions

No hazardous reaction when handled and stored according to provisions.

Refer to chapter 10.5.

# 10.4. Conditions to avoid

Protect against: UV-radiation/sunlight. heat.

### 10.5. Incompatible materials

Materials to avoid: Oxidizing agents, strong. Reducing agents, strong.

#### 10.6. Hazardous decomposition products

Can be released in case of fire: Carbon monoxide Carbon dioxide (CO2). Nitrogen oxides (NOx).

## **SECTION 11: Toxicological information**

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

## Toxicocinetics, metabolism and distribution

No data available.

#### Acute toxicity

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

### Irritation and corrosivity

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

#### Sensitising effects

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

# Carcinogenic/mutagenic/toxic effects for reproduction

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.

# Specific effects in experiment on an animal

No data available.

# 11.2. Information on other hazards

#### **Endocrine disrupting properties**

This product does not contain a substance (> 0,1 %) that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

#### Other information

No data available.

# **SECTION 12: Ecological information**

#### 12.1. Toxicity

The product has not been tested.

### 12.2. Persistence and degradability

according to Regulation (EC) No 1907/2006

# International Calibration Standard: ICS-R3 ("DCHA-Rho")

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The product has not been tested.

### 12.3. Bioaccumulative potential

No indication of bioaccumulation potential.

### 12.4. Mobility in soil

No data available.

### 12.5. Results of PBT and vPvB assessment

This substance does not meet the PBT/vPvB criteria of REACH, annex XIII.

The aforementioned statement applies to substances contained in the product with a minimum content of 0.1%.

#### 12.6. Endocrine disrupting properties

This substance does not have endocrine disrupting properties with respect to non-target organisms.

The aforementioned statement applies to substances contained in the product with a minimum content of 0.1%.

#### 12.7. Other adverse effects

No data available.

#### **Further information**

Do not allow to enter into surface water or drains.

# **SECTION 13: Disposal considerations**

# 13.1. Waste treatment methods

### **Disposal recommendations**

Observe in addition any national regulations! Consult the local waste disposal expert about waste disposal.

Non-contaminated packages may be recycled.

According to (EWC) European Waste Catalogue, allocation of waste identity numbers/waste descriptions must be carried out in a specific way for every industry and process.

Control report for waste code/ waste marking according to (EWC) European Waste Catalogue:

## List of Wastes Code - residues/unused products

160306 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; off-specification batches and unused

products; organic wastes other than those mentioned in 16 03 05

## List of Wastes Code - used product

160306 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; off-specification batches and unused

products; organic wastes other than those mentioned in 16 03 05

# List of Wastes Code - contaminated packaging

150106 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND

PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED; packaging (including separately

collected municipal packaging waste); mixed packaging

# Contaminated packaging

Handle contaminated packages in the same way as the substance itself.

## **SECTION 14: Transport information**

### Land transport (ADR/RID)

14.1. UN number or ID number:	No dangerous good in sense of this transport regulation.
14.2. UN proper shipping name:	No dangerous good in sense of this transport regulation.
14.3. Transport hazard class(es):	No dangerous good in sense of this transport regulation.
14.4. Packing group:	No dangerous good in sense of this transport regulation.

#### Inland waterways transport (ADN)

14.1. UN number or ID number:	No dangerous good in sense of this transport regulation.
14.2. UN proper shipping name:	No dangerous good in sense of this transport regulation.
14.3. Transport hazard class(es):	No dangerous good in sense of this transport regulation.

according to Regulation (EC) No 1907/2006

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14.4. Packing group: No dangerous good in sense of this transport regulation.

Marine transport (IMDG)

14.1. UN number or ID number:No dangerous good in sense of this transport regulation.14.2. UN proper shipping name:No dangerous good in sense of this transport regulation.14.3. Transport hazard class(es):No dangerous good in sense of this transport regulation.14.4. Packing group:No dangerous good in sense of this transport regulation.

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number or ID number:No dangerous good in sense of this transport regulation.14.2. UN proper shipping name:No dangerous good in sense of this transport regulation.14.3. Transport hazard class(es):No dangerous good in sense of this transport regulation.14.4. Packing group:No dangerous good in sense of this transport regulation.

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: No

14.6. Special precautions for user

refer to chapter 6 - 8

### 14.7. Maritime transport in bulk according to IMO instruments

not relevant

## **SECTION 15: Regulatory information**

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

#### **EU** regulatory information

2010/75/EU (VOC): No information available. 2004/42/EC (VOC): No information available.

Information according to 2012/18/EU Not subject to 2012/18/EU (SEVESO III)

(SEVESO III):

#### **Additional information**

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (amended by Regulation (EU) No 2020/878)

The mixture is classified as not hazardous according to regulation (EC) No 1272/2008 [CLP].

REACH 1907/2006 Appendix XVII, No (mixture): not relevant

#### **National regulatory information**

Water hazard class (D): 3 - highly hazardous to water

### 15.2. Chemical safety assessment

For the following substances of this mixture a chemical safety assessment has been carried out:

# **SECTION 16: Other information**

#### Changes

Rev. 1.0; Initial release 08.01.2018

Rev. 2.0; 26.01.2023, Changes in chapter: 1 - 16.

# Abbreviations and acronyms

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement

concerning the International Carriage of Dangerous Goods by Road)

CAS: Chemical Abstracts Service

CLP: Classification, Labelling and Packaging of substances and mixtures

DNEL: Derived No Effect Level

d: day(s)

EINECS: European INventory of Existing Commercial chemical Substances

ELINCS: European LIst of Notified Chemical Substances

ECHA: European Chemicals Agency EWC: European Waste Catalogue

according to Regulation (EC) No 1907/2006

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IARC: INTERNATIONAL AGENCY FOR RESEARCH ON CANCER

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

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

ICAO: International Civil Aviation Organization

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

GHS: Globally Harmonized System of Classification and Labelling of Chemicals GefStoffV: Gefahrstoffverordnung (Ordinance on Hazardous Substances, Germany)

h: hour

LOAEL: Lowest observed adverse effect level

LOAEC: Lowest observed adverse effect concentration

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

NOAEL: No observed adverse effect level

NOAEC: No observed adverse effect concentration

NLP: No-Longer Polymers

N/A: not applicable

OECD: Organisation for Economic Co-operation and Development

PNEC: predicted no effect concentration PBT: Persistent bioaccumulative toxic

RID: Reglement international concernant le transport des marchandises dangereuses par chemin de

fer (Regulations Concerning the International Transport of Dangerous Goods by Rail )

REACH: Registration, Evaluation, Authorisation of Chemicals

SVHC: substance of very high concern TRGS: Technische Regeln für Gefahrstoffe

**UN: United Nations** 

VOC: Volatile Organic Compounds

## **Further Information**

Classification according to Regulation (EC) No 1272/2008 [CLP] - Classification procedure:

Health hazards: Calculation method.
Environmental hazards: Calculation method.

Physical hazards: On basis of test data and / or calculated and / or estimated.

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.