# Scharlau

## Safety data sheet according to 1907/2006/EC, Article 31 Commission regulation (EU) 2020/878

Printing date 07.03.2023

Version number 6.0 (replaces version 5.0)

Revision: 07.03.2023

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

- · 1.1 Product identifier
- · Trade name: n-Hexane, 96%, HPLC BASIC
- · Article number: HE0247
- · CAS Number: 110-54-3
- **EC number:** 203-777-6
- Index number: 601-037-00-0
- **1.2 Relevant identified uses of the substance or mixture and uses advised against** No further relevant information available.
- Application of the substance / the preparation: Organic solvent Laboratory reagent
- · 1.3 Details of the supplier of the safety data sheet
- Manufacturer/Supplier: Scharlab, S.L. C/Gato Pérez, 33. Pol.Ind. Mas d'en Cisa 08181 Sentmenat (Barcelona) SPAIN Tel: (+34) 93 745 64 00 - FAX: (+34) 93 715 27 65 email: scharlab@scharlab.com Internet Web Site: www.scharlab.com

# • **Regional representation:** Scharlab, S.L.

C/Gato Pérez, 33. Pol.Ind. Mas d'en Cisa 08181 Sentmenat (Barcelona) SPAIN Tel: (+34) 93 745 64 00 - FAX: (+34) 93 715 27 65 email: scharlab@scharlab.com Internet Web Site: www.scharlab.com

· Further information obtainable from: technical department

#### • 1.4 Emergency telephone number:

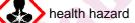
Please contact the regional Scharlab distributor/dealer in your country During normal opening times: Scharlab, S.L. (+34) 93 715 18 11

# **SECTION 2: Hazards identification**

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



H225 Highly flammable liquid and vapour.



Repr. 2	H361f Suspected of damaging fertility (causing atrophy of the testes).
STOT RE 2	H373 May cause damage to organs through prolonged or repeated exposure.
Asp. Tox. 1	H304 May be fatal if swallowed and enters airways.

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Aquatic Chronic 2 H411 Toxic to aquatic life with long lasting effects.



Skin Irrit. 2H315 Causes skin irritation.STOT SE 3H336 May cause drowsiness or dizziness.

2.2 Label elements

#### · Labelling according to Regulation (EC) No 1272/2008

- The substance is classified and labelled according to the GB CLP regulation.
- Hazard pictograms



#### Signal word Danger

- Hazard statements
- H225 Highly flammable liquid and vapour.
- H315 Causes skin irritation.
- H361f Suspected of damaging fertility (causing atrophy of the testes).
- H336 May cause drowsiness or dizziness.
- H373 May cause damage to organs through prolonged or repeated exposure.
- H304 May be fatal if swallowed and enters airways.
- H411 Toxic to aquatic life with long lasting effects.

#### Precautionary statements

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor.

P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].

P370+P378	In case of fire: Use CO2, powder or water spray to extinguish.
P405	Store locked up.
P501	Dispose of contents/container in accordance with local/regional/national/
	international regulations.

· 2.3 Other hazards

- · Results of PBT and vPvB assessment
- •**PBT:** Not applicable.

vPvB: Not applicable.

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

- · 3.1 Substances
- · CAS No. Description
- 110-54-3 n-hexane
- Identification number(s)
- EC number: 203-777-6

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· Index number: 601-037-00-0

# SECTION 4: First aid measures

· 4.1 Description of first aid measures

General information:

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

After inhalation: Take affected persons into fresh air and keep quiet. In case of unconsciousness place patient stably in side position for transportation.

Use a respiratory bag or breathing device.

Do not use mouth to mouth or mouth to nose resuscitation.

Seek medical treatment.

After skin contact:

Immediately wash with water and soap and rinse thoroughly. Immediately remove contaminated clothing. Wash contaminated clothing before reuse.

After eye contact:

Rinse opened eye for several minutes under running water.

Eye contact causes painful burns that can cause permanent visual impairment or blindness. Seek medical treatment.

After swallowing:

Never give anything by mouth to an unconscious person.

Rinse mouth and drink water (2 glasses) if the affected is conscious. Seek medical help immediately.

A person vomiting while laying on their back should be turned onto their side. Do not induce vomiting. Risk of perforation.

Call a doctor immediately.

- · 4.2 Most important symptoms and effects, both acute and delayed
- The main symptoms are described for different cases of contact: Skin, eyes, inhalation and ingestion.
- 4.3 Indication of any immediate medical attention and special treatment needed Treat symptomatically.

# **SECTION 5: Firefighting measures**

- · 5.1 Extinguishing media
- · Suitable extinguishing agents:

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

- · For safety reasons unsuitable extinguishing agents: Water with full jet
- 5.2 Special hazards arising from the substance or mixture Highly flammable liquid and vapor.

5.3 Advice for firefighters

Protective equipment:

In the work of extinction it is necessary to provide respiratory protection and full chemical protective clothing.

Wear self-contained respiratory protective device.

Wear fully protective suit.

Stay in danger area only with artificial systems and independent breathing apparatus. Additional information

In the event of a major fire and large quantities, evacuate the area and fight the fire from a distance given the risk of explosion.

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

Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

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Cool endangered receptacles with water spray.

# **SECTION 6: Accidental release measures**

- · 6.1 Personal precautions, protective equipment and emergency procedures Ensure adequate ventilation Evacuate and restrict access. Eliminate all sources of ignition. Keep away from ignition sources. Use respiratory protective device against the effects of fumes/dust/aerosol. Wear protective clothing. Wear protective equipment. Keep unprotected persons away. 6.2 Environmental precautions: Do not allow product to reach sewage system or any water course. Inform respective authorities in case of seepage into water course or sewage system. Do not allow to enter sewers/ surface or ground water. 6.3 Methods and material for containment and cleaning up: Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust). Dispose contaminated material as waste according to item 13. Ensure adequate ventilation. 6.4 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.

## **SECTION 7: Handling and storage**

- 7.1 Precautions for safe handling
   Do not eat, drink or smoke during use.
   Wash hands after any manipulation.
   Keep away from heat and sources of ignition.
   Avoid breathing mist/vapours/spray.
- Information about fire and explosion protection: Keep ignition sources away - Do not smoke. Protect against electrostatic charges.
- 7.2 Conditions for safe storage, including any incompatibilities
- · Storage:
- **Requirements to be met by storerooms and receptacles:** Store in a cool, dry, well-ventilated place. Store only in unopened original receptacles. Store in a cool location.
- · Information about storage in one common storage facility: Store away from foodstuffs.
- Further information about storage conditions:
- Keep container tightly sealed. Store in cool, dry conditions in well sealed receptacles. See product's label for recommended storage temperature.
- · 7.3 Specific end use(s) No further relevant information available.

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

- · 8.1 Control parameters
- · Ingredients with limit values that require monitoring at the workplace: Not required.

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· DNELs

- DNEL for workers, cronic. Systematic effects:
- Inhalative: 3.25 mg/m3
- Dermic: 25.9 mg/kg body weight
- · Additional information: The lists valid during the making were used as basis.
- · 8.2 Exposure controls
- · Appropriate engineering controls No further data; see item 7.
- · Individual protection measures, such as personal protective equipment
- General protective and hygienic measures: Keep away from foodstuffs, beverages and feed. Immediately remove all soiled and contaminated clothing Wash hands before breaks and at the end of work. Avoid contact with the skin. Avoid contact with the eyes and skin.
- Respiratory protection:
- In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.
- · Hand protection



Protective gloves

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

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

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

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.

· Penetration time of glove material

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

Eye/face protection



Tightly sealed goggles

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

- 9.1 Information on basic physical and chemical properties
- General Information
- · Physical state
- · Colour:
- · Odour:
- · Odour threshold:
- Melting point/freezing point:
- · Boiling point or initial boiling point and
- boiling range
   Flammability

Fluid Colourless Petrol-like Not determined. -95 °C

69 °C Highly flammable.

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· Lower and upper explosion limit

· Lower:

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- · Upper:
- · Flash point:
- · Ignition temperature:
- · Decomposition temperature:
- · pH
- · Viscosity:
- · Kinematic viscosity
- · Dynamic:
- · Solubility
- · water at 20 °C:
- Partition coefficient n-octanol/water (log value)
- Vapour pressure at 25 °C:
- · Density and/or relative density
- · Density at 20 °C:
- · Relative density
- · Vapour density
- · 9.2 Other information
- Appearance:
- · Form:
- Important information on protection of health and environment, and on safety.
- · Auto-ignition temperature:
- · Explosive properties:
- · Molecular weight
- · Change in condition
- · Evaporation rate
- Information with regard to physical hazard classes
- · Explosives
- · Flammable gases
- · Aerosols
- · Oxidising gases
- · Gases under pressure
- · Flammable liquids
- · Flammable solids
- · Self-reactive substances and mixtures
- · Pyrophoric liquids
- · Pyrophoric solids
- Self-heating substances and mixtures • Substances and mixtures, which emit
- flammable gases in contact with water • Oxidising liquids
- Oxidising solids
- · Organic peroxides
- · Corrosive to metals
- · Desensitised explosives

1.2 Vol % 8.3 Vol % -22 °C 240 °C Not determined. Not determined.

Not determined. Not determined.

0.06 g/l

0.34242-0.716 190 hPa

0.67 g/cm<sup>3</sup> Not determined. Not determined.

Fluid

Not determined. Product is not explosive. However, formation of explosive air/vapour mixtures are possible. 85.2 g/mol

Not determined.

Void
Void
Void
Void
Void
Highly flammable liquid and vapour.
Void
Void

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#### SECTION 10: Stability and reactivity

- · 10.1 Reactivity No further relevant information available.
- · 10.2 Chemical stability Stable at room temperature.
- Thermal decomposition / conditions to be avoided:
- No decomposition if used according to specifications.
- · 10.3 Possibility of hazardous reactions No dangerous reactions known.
- · 10.4 Conditions to avoid
- Heat, open flames and sparks Electrostatic charges
- · 10.5 Incompatible materials: Oxidising agents.
- · 10.6 Hazardous decomposition products: No dangerous decomposition products known.

## SECTION 11: Toxicological information

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

- Acute toxicity
- LD/LC50 values relevant for classification:

Oral LD50 16,750 mg/kg (rat)

- Dermal LD50 3,350 mg/kg (rabbit)
- Inhalative LC50/4 h 259,350 mg/l (rat)
- Skin corrosion/irritation Causes skin irritation.
- Reproductive toxicity Suspected of damaging fertility (causing atrophy of the testes).
- · STOT-single exposure May cause drowsiness or dizziness.
- · STOT-repeated exposure May cause damage to organs through prolonged or repeated exposure.
- · Aspiration hazard May be fatal if swallowed and enters airways.
- 11.2 Information on other hazards
- · Endocrine disrupting properties Substance is not listed.

## **SECTION 12: Ecological information**

- · 12.1 Toxicity
- Aquatic toxicity:
- Toxicity to fish
- CL50 Oryzias latipes (Carp) 13.37 mg/L (96h)
- NOEC Oryzias latipes (Carpa) 2.99 mg/L (28h)
- 12.2 Persistence and degradability Biodegradability
- Result: 98 % (Exposure time: 28 days) OECD 301F
- Easily biodegradable
- 12.3 Bioaccumulative potential Log Pow: 2.2 - 5.2 (25°C)
- Bioconcentration factor (BCF): 10 2500
- May be accumulated in organism
- · 12.4 Mobility in soil No further relevant information available.
- · 12.5 Results of PBT and vPvB assessment
- · PBT: Not applicable.
- · vPvB: Not applicable.
- 12.6 Endocrine disrupting properties
- The product does not contain substances with endocrine disrupting properties.

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12.7 Other adverse effects

- · Remark: Toxic for fish
- Additional ecological information:
- · General notes:

Water hazard class 2 (German Regulation) (Assessment by list): 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

## **SECTION 13: Disposal considerations**

- · 13.1 Waste treatment methods
- Recommendation

Must be specially treated adhering to official regulations.

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

- · Uncleaned packaging:
- · Recommendation:

Dispose of packaging according to regulations on the disposal of packagings. Packagings that may not be cleansed are to be disposed of in the same manner as the product.

### **SECTION 14: Transport information** 14.1 UN number or ID number · ADR, IMDG, IATA UN1208 14.2 UN proper shipping name · ADR 1208 HEXANES, ENVIRONMENTALLY HAZARDOUS · IMDG HEXANES, MARINE POLLUTANT · IATA HEXANES 14.3 Transport hazard class(es) · ADR, IMDG · Class 3 Flammable liquids. Label З · IATA · Class 3 Flammable liquids. · Label 3 · 14.4 Packing group · ADR, IMDG, IATA · 14.5 Environmental hazards: Environmentally hazardous substance, liquid; Marine Pollutant (Contd. on page 9)

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Yes (P)

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· Marine pollutant:

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- · Special marking (ADR):
- 14.6 Special precautions for user
- · Hazard identification number (Kemler code): 33
- · EMS Number:
- Stowage Category
- 14.7 Maritime transport in bulk according to IMO instruments
- Transport/Additional information:
- · ADR
- · Limited quantities (LQ)
- Transport category
- Tunnel restriction code
- UN "Model Regulation":

Symbol (fish and tree) Symbol (fish and tree) Warning: Flammable liquids. F-E,S-D

Not applicable.

D/E UN 1208 HEXANES, 3, II, ENVIRONMENTALLY HAZARDOUS

#### SECTION 15: Regulatory information

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

- Directive 2012/18/EU
- Named dangerous substances ANNEX I -
- Seveso category E2 Hazardous to the Aquatic Environment P5c FLAMMABLE LIQUIDS
- · Qualifying quantity (tonnes) for the application of lower-tier requirements 200 t
- Qualifying quantity (tonnes) for the application of upper-tier requirements 500 t
- · 15.2 Chemical safety assessment: A Chemical Safety Assessment has been carried out.

## **SECTION 16: Other information**

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.

- Department issuing SDS: product safety department
- Contact: msds@scharlab.com
- 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
- IATA: International Air Transport Association
- P: Marine Pollutant
- GHS: Globally Harmonised System of Classification and Labelling of Chemicals
- EINECS: European Inventory of Existing Commercial Chemical Substances
- CAS: Chemical Abstracts Service (division of the American Chemical Society) DNEL: Derived No-Effect Level (UK REACH)
- LC50: Lethal concentration, 50 percent
- LD50: Lethal dose, 50 percent
- PBT: Persistent, Bioaccumulative and Toxic
- vPvB: very Persistent and very Bioaccumulative
- Flam. Liq. 2: Flammable liquids Category 2
- Skin Irrit. 2: Skin corrosion/irritation Category 2 Repr. 2: Reproductive toxicity - Category 2

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STOT SE 3: Specific target organ toxicity (single exposure) – Category 3 STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2 Asp. Tox. 1: Aspiration hazard – Category 1 Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2

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## Annex: Exposure scenario 1

- · 1 Short title of the exposure scenario Industrial use
- Sector of Use
- SU3 Industrial uses: Uses of substances as such or in preparations at industrial sites
- · Process category PROC15 Use as laboratory reagent
- Environmental release category ERC2 Formulation into mixture
- ERC4 Use of non-reactive processing aid at industrial site (no inclusion into or onto article) • Description of the activities / processes covered in the Exposure Scenario
- See section 1 of the annex to the Safety Data Sheet.
- · 2 Conditions of use
- · Duration and frequency

8hrs (full working shift).

5 workdays/week.

Emission days (days/year): 20

#### · Environment

Estimated substance removal from wastewater via domestic sewage treatment (%): 96 Maximum allowable site tonnage based on release following total wastewater treatment removal (kg/day): 2400

Wastewater is to be treated by a municipal STP. Municipal STP discharge rate <2E3 m3/d.

- Physical parameters
- · Physical state Fluid
- · Concentration of the substance in the mixture Raw material.
- · Used amount per time or activity

2 tons per year

100 kg per day

- Other operational conditions
- · Other operational conditions affecting environmental exposure

Fraction released to air from process (initial release previous to MGR): 0.025 Fraction released to residual water from process (initial release previous to MGR): 0.02 Fraction released to ground from process (initial release previous to MGR): 0.0001 Use only on hard ground.

Other operational conditions affecting worker exposure

Avoid contact with the skin.

Take precautionary measures against static discharge.

Keep away from sources of ignition - No smoking.

Assumes use at not more than 20 °C above ambient temperature, unless stated differently. Do not taste or swallow.

Do not ingest.

Do not induce vomiting

- Risk management measures
- Worker protection

#### Organisational protective measures

It is recommended to follow the current ATEX directive to explosive atmospheres

Ensure good ventilation. This can be achieved by using a local exhaustion or general exhaust system. If these measures are insufficient to keep the solvent vapour concentration below the workplace limit, wear an adequate respiratory protective device. Handle in a fume cupboard or under extract ventilation

Provide a good standard of controlled ventilation (10 to 15 air changes per hour)

Do not apply industrial sludge to natural soils. Sludge should be incinerated, contained or reclaimed. *Technical protective measures* 

Provide explosion-proof electrical equipment.

Ensure that suitable extractors are available on processing machines

Use product only in enclosed systems.

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Ensure good ventilation/exhaustion at the workplace. Use only in well ventilated areas.

Restrict line velocity during pumping to avoid generation of electrostatic discharge.

#### Personal protective measures

Do not inhale gases / fumes / aerosols.

Avoid contact with the skin. Change contaminated clothing immediately.

Protective gloves

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

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

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

Wear suitable protective gloves and protective goggles /face protection during work.

· Measures for consumer protection Ensure adequate labelling.

#### · Environmental protection measures

· Air No special measures required.

#### · Water

Generally, prior to the introduction of wastewater into wastewater treatment plants a neutralisation is required.

Do not allow to reach sewage system.

Soil Prevent contamination of soil.

#### · Disposal measures

Disposal must be made according to official regulations. Ensure that waste is collected and contained.

· Disposal procedures

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

· Waste type Partially emptied and uncleaned packaging

#### · 3 - Exposure estimation

· Worker (oral)

The exposure estimation was carried out in accordance with ECETOC TRA. The calculated value is smaller than the DNEL.

Detailed information on the exposure estimation can be found at http://www.ecetoc.org/tra.

· Worker (dermal)

The exposure estimation was carried out in accordance with ECETOC TRA. The calculated value is smaller than the DNEL.

Detailed information on the exposure estimation can be found at http://www.ecetoc.org/tra. • *Worker (inhalation)* 

The exposure estimation was carried out in accordance with ECETOC TRA. The calculated value is smaller than the DNEL.

Detailed information on the exposure estimation can be found at http://www.ecetoc.org/tra.

#### Environment

The Hydrocarbon Block Method has been used to calculate environmental exposure with the Petrorisk model.

#### 4 - Guidance for downstream users

Whether the downstream user acts within the scope of the Exposure Scenario can be verified based on the information in sections 1 to 8.

Whether the downstream user uses the substance / the mixture within the scope of the Exposure Scenario can be determined by means of a technical assessment.

For the risk assessment, the tools recommended by ECHA can be used.

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#### Annex: Exposure scenario 2

- · 1 Short title of the exposure scenario Laboratory use
- Sector of Use
- SU22 Professional uses: Public domain (administration, education, entertainment, services, craftsmen)
- Process category PROC15 Use as laboratory reagent
- · Environmental release category
- ERC8a Widespread use of non-reactive processing aid (no inclusion into or onto article, indoor) • Description of the activities / processes covered in the Exposure Scenario
- See section 1 of the annex to the Safety Data Sheet.
- · 2 Conditions of use
- *Duration and frequency* 8hrs (full working shift).
- 5 workdays/week.
- Emission days (days/year): 365

#### · Environment

Estimated substance removal from wastewater via domestic sewage treatment (%): 96 Maximum allowable site tonnage based on release following total wastewater treatment removal (kg/day): 370

Wastewater is to be treated by a municipal STP. Municipal STP discharge rate <2E3 m3/d.

- Physical parameters
- · Physical state Fluid
- · Concentration of the substance in the mixture Raw material.
- · Used amount per time or activity
- 0.0028 tons per year
- 0.0075 kg per day
- Other operational conditions
- · Other operational conditions affecting environmental exposure

Fraction released to air from process (initial release previous to MGR): 0.5 Fraction released to residual water from process (initial release previous to MGR): 0.5 Fraction released to ground from process (initial release previous to MGR): 0 Use only on hard ground.

Other operational conditions affecting worker exposure

Avoid contact with the skin.

Take precautionary measures against static discharge.

Keep away from sources of ignition - No smoking.

Assumes use at not more than 20 °C above ambient temperature, unless stated differently. Do not taste or swallow.

Do not ingest.

Do not induce vomiting

- Risk management measures
- Worker protection

#### Organisational protective measures

It is recommended to follow the current ATEX directive to explosive atmospheres

Ensure good ventilation. This can be achieved by using a local exhaustion or general exhaust system. If these measures are insufficient to keep the solvent vapour concentration below the workplace limit, wear an adequate respiratory protective device. Handle in a fume cupboard or under extract ventilation

Provide a good standard of controlled ventilation (10 to 15 air changes per hour)

Do not apply industrial sludge to natural soils. Sludge should be incinerated, contained or reclaimed. *Technical protective measures* 

Provide explosion proof electrical or

Provide explosion-proof electrical equipment.

Ensure that suitable extractors are available on processing machines Use product only in enclosed systems.

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Ensure good ventilation/exhaustion at the workplace. Use only in well ventilated areas.

Restrict line velocity during pumping to avoid generation of electrostatic discharge.

#### Personal protective measures

Do not inhale gases / fumes / aerosols.

Avoid contact with the skin. Change contaminated clothing immediately.

Protective gloves

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

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

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

Wear suitable protective gloves and protective goggles /face protection during work.

Measures for consumer protection Ensure adequate labelling.

#### Environmental protection measures

Air No special measures required.

#### · Water

Generally, prior to the introduction of wastewater into wastewater treatment plants a neutralisation is required.

Do not allow to reach sewage system.

Soil Prevent contamination of soil.

#### **Disposal measures**

Disposal must be made according to official regulations. Ensure that waste is collected and contained.

· Disposal procedures

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

- · Waste type Partially emptied and uncleaned packaging
- · 3 Exposure estimation
- Worker (oral)

The exposure estimation was carried out in accordance with ECETOC TRA. The calculated value is smaller than the DNEL.

Detailed information on the exposure estimation can be found at http://www.ecetoc.org/tra.

Worker (dermal)

The exposure estimation was carried out in accordance with ECETOC TRA. The calculated value is smaller than the DNEL.

Detailed information on the exposure estimation can be found at http://www.ecetoc.org/tra. · Worker (inhalation)

The exposure estimation was carried out in accordance with ECETOC TRA. The calculated value is smaller than the DNEL.

Detailed information on the exposure estimation can be found at http://www.ecetoc.org/tra.

#### Environment

The Hydrocarbon Block Method has been used to calculate environmental exposure with the Petrorisk model.

#### 4 - Guidance for downstream users

Whether the downstream user acts within the scope of the Exposure Scenario can be verified based on the information in sections 1 to 8.

Whether the downstream user uses the substance / the mixture within the scope of the Exposure Scenario can be determined by means of a technical assessment.

For the risk assessment, the tools recommended by ECHA can be used.