HYDROFAN WARM ORANGE

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

1.1 Product identifier

Trade name : HYDROFAN WARM ORANGE

Product code : LNHF0022

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

Use of the : Paints, varnishes and enamels

Substance/Mixture

Chemical nature : Mono compound enamel - finish coat

1.3 Details of the supplier of the safety data sheet

Company : Lechler SpA

Via Cecilio 17

22100 Como- CO-

Telephone : +39031586111
Telefax : +39031586206
E-mail address : safety@lechler.eu

Responsible/issuing person

1.4 Emergency telephone number

Tel. +39-031-586301 Fax +39-031-586299

This telephone number is available during office hours only.

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Not a hazardous substance or mixture.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Not a hazardous substance or mixture.

Additional Labelling:

EUH210 Safety data sheet available on request.

2.3 Other hazards

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None known.

No hazards resulting from the material as supplied.

The information required is contained in this Material Safety Data Sheet.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Chemical nature : Water pigmented dispersion

Hazardous components

| Chemical name | CAS-No. EC-No. Registration number | Classification (REGULATION (EC) No 1272/2008) | Concentration [%] |
|------------------------|---|---|-------------------|
| 2-butoxyethanol | 111-76-2 203-905-0 01-2119475108-36 | Acute Tox. 4; H302 Acute Tox. 4; H332 Acute Tox. 4; H312 Skin Irrit. 2; H315 Eye Irrit. 2; H319 | >= 5 - < 10 |
| N-methyl-2-pyrrolidone | 872-50-4 212-828-1 01-2119472430-46 | Skin Irrit. 2; H315 Eye Irrit. 2; H319 Repr. 1B; H360D STOT SE 3; H335 | >= 0,1 - < 0,3 |

For the full text of the H-Statements mentioned in this Section, see Section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice : When symptoms persist or in all cases of doubt seek medical

advice.

Never give anything by mouth to an unconscious person.

If inhaled : Remove to fresh air.

Keep patient warm and at rest.

If breathing is irregular or stopped, administer artificial

respiration.

If unconscious, place in recovery position and seek medical

advice.

In case of skin contact : Take off all contaminated clothing immediately.

Wash skin thoroughly with soap and water or use recognized

skin cleanser.

Do NOT use solvents or thinners. Put shower on working place

In case of eye contact : Irrigate copiously with clean, fresh water for at least 10

minutes, holding the eyelids apart.

Seek medical advice.

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Put eye-washer on working place

Remove contact lenses.

If swallowed : If accidentally swallowed obtain immediate medical attention.

Do NOT induce vomiting.

Keep at rest.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms : No information available.

Risks : No information available.

4.3 Indication of any immediate medical attention and special treatment needed

Treatment : The first aid procedure should be established in consultation

with the doctor responsible for industrial medicine.

Seek medical advice.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media : Use water spray, alcohol-resistant foam, dry chemical or

carbon dioxide.

Keep containers and surroundings cool with water spray.

Unsuitable extinguishing

media

: Do NOT use water jet.

5.2 Special hazards arising from the substance or mixture

Specific hazards during

firefighting

: As the product contains combustible organic components, fire

will produce dense black smoke containing hazardous

products of combustion (see section 10).

Exposure to decomposition products may be a hazard to

health.

Cool closed containers exposed to fire with water spray. Collect contaminated fire extinguishing water separately. This

must not be discharged into drains.

Fire residues and contaminated fire extinguishing water must

be disposed of in accordance with local regulations.

5.3 Advice for firefighters

Special protective equipment

for firefighters

: Wear self-contained breathing apparatus for firefighting if

necessary.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

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Personal precautions : Use personal protective equipment.

Ventilate the area.

Refer to protective measures listed in sections 7 and 8.

Material can create slippery conditions.

6.2 Environmental precautions

Environmental precautions : Try to prevent the material from entering drains or water

courses.

If the product contaminates rivers and lakes or drains inform

respective authorities.

6.3 Methods and materials for containment and cleaning up

Methods for cleaning up : Clean with detergents. Avoid solvents.

Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to

local / national regulations (see section 13).

6.4 Reference to other sections

Refer to section 15 for specific national regulation.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling : Avoid exceeding the given occupational exposure limits (see

section 8).

Use only in area provided with appropriate exhaust ventilation.

Avoid contact with skin, eyes and clothing.

Smoking, eating and drinking should be prohibited in the

application area.

Avoid inhalation of vapour or mist. For personal protection see section 8.

Thoroughly mix before using

After using, store in a well-sealed container

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers

: Observe label precautions.

Containers which are opened must be carefully resealed and

kept upright to prevent leakage.

Store in accordance with the particular national regulations. Store between 5° an 35°C in a dry, well ventilated place away

from source of heat, ignition and direct sunlight.

No smoking.

Electrical installations / working materials must comply with

the technological safety standards.

Advice on common storage : Keep away from oxidizing agents and strongly acid or alkaline

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materials.

7.3 Specific end use(s)

: This information is not available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

| Components | CAS-No. | Value | Control parameters | Update | Basis |
|---------------------------------|---------------|----------------|-----------------------------|---------------------------|-------------|
| Ethylene Glycol Monobutyl | 111-76-2 | TWA | 20 ppm 98 mg/m3 | 2000-06-16 | 2000/39/EC |
| Ether | | | | | |
| Further information | : skin: Ident | ifies the poss | ibility of significant upta | ake through the skinIndic | ative |
| | | STEL | 50 ppm 246 mg/m3 | 2000-06-16 | 2000/39/EC |
| Further information | : skin: Ident | ifies the poss | ibility of significant upta | ake through the skinIndic | ative |
| 1-methyl-2- pyrrolidone | 872-50-4 | TWA | 10 ppm 40 mg/m3 | 2009-12-19 | 2009/161/EU |
| Further information | : skin: Ident | ifies the poss | ibility of significant upta | ake through the skinIndic | ative |
| | | STEL | 20 ppm 80 mg/m3 | 2009-12-19 | 2009/161/EU |
| Further information | : skin: Ident | ifies the poss | ibility of significant upta | ake through the skinIndic | ative |

DNEL

N-methyl-2-pyrrolidone : End Use: Workers

Exposure routes: Dermal

Potential health effects: Long-term systemic effects

Value: 4,8 mg/kg

End Use: Workers

Exposure routes: Inhalation

Potential health effects: Long-term systemic effects

Value: 14,4 mg/m3

End Use: Workers

Exposure routes: Inhalation

Potential health effects: Long-term local effects

Value: 40 mg/m3

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N-methyl-2-pyrrolidone : Fresh water

Value: 0,25 mg/l

Marine water Value: 0,025 mg/l

Fresh water sediment Value: 1,42 mg/kg

Marine sediment Value: 0,142 mg/kg

Soil

Value: 0,138 mg/kg

Sewage treatment plant Value: 10 mg/kg

8.2 Exposure controls

Personal protective equipment

Respiratory protection

: Apply technical measures to comply with the occupational

exposure limits.

This should be achieved by a good general extraction and -if practically feasible- by the use of a local exhaust ventilation.

If the occupational exposure limits cannot be met, in exceptional cases suitable respiratory equipment should be

worn only for a short period of time.

Respirator with combination filter for vapour/particulate (EN

141)

Hand protection : Latex gloves

For prolonged or repeated contact use protective gloves.

Protective gloves complying with EN 374.

Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the

danger of cuts, abrasion, and the contact time.

If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of

the CE approved gloves.

Barrier creams may help to protect the exposed areas of skin,

they should however not be applied once exposure has

occurred.

Skin should be washed after contact.

Wash your hands and put on barrier creams

Eye protection : Chemical resistant goggles must be worn.

Ensure that eyewash stations and safety showers are close to

the workstation location.

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Skin and body protection : Skin should be washed after contact.

Wear suitable protective clothing.

Environmental exposure controls

General advice : Try to prevent the material from entering drains or water

courses.

If the product contaminates rivers and lakes or drains inform

respective authorities.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance : liquid

Odour : solvent-like

Flash point : $> 63 - 100 \,^{\circ}\text{C}$

Ignition temperature : not determined

Lower explosion limit : No data available

Upper explosion limit : No data available

Auto-ignition temperature : Not applicable

pH : not determined

Freezing point : Not applicable

Boiling point : not determined

Vapour pressure : 1,000 hPa

at 50 °C

Density : 1,0334 g/cm3

Water solubility : not determined

Partition coefficient: n-

octanol/water

: No data available

Solubility in other solvents : not determined

Flow time : 59 s 6 mm

Method: ISO/DIN 2431 '84

Relative vapour density : Not applicable

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according to Regulation (EC) No. 830/2015

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Evaporation rate : not determined

9.2 Other information

Solids by weight : 16,35 %

Volatile organic compounds :

: 6,86 %

(VOC) content

Water content : 69,76 %

SECTION 10: Stability and reactivity

10.1 Reactivity

None reasonably foreseeable.

10.2 Chemical stability

The product is chemically stable.

10.3 Possibility of hazardous reactions

Hazardous reactions : No dangerous reaction known under conditions of normal use.

10.4 Conditions to avoid

Conditions to avoid : Our products were manufactured in compliance with safety

standards to avoid decomposition and degrading under the

defined conditions.

Taking the product type into account, it is advisable to leave the product in its original packaging thus avoiding transferring

it.

10.5 Incompatible materials

Materials to avoid : Keep away from oxidizing agents, strongly alkaline and

strongly acid materials in order to avoid exothermic reactions.

10.6 Hazardous decomposition products

Hazardous decomposition

products

: Carbon dioxide (CO2), carbon monoxide (CO), oxides of

nitrogen (NOx), dense black smoke.

Thermal decomposition : Not applicable

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Product

Acute oral toxicity : Acute toxicity estimate: > 2.000 mg/kg, Calculation

method

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according to Regulation (EC) No. 830/2015

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Acute inhalation toxicity : Acute toxicity estimate: > 20 mg/l, 4 h, vapour, Calculation

method

Acute dermal toxicity : Acute toxicity estimate: > 2.000 mg/kg, Calculation method

Skin corrosion/irritation : Repeated or prolonged contact with the mixture may cause

removal of natural fat from the skin resulting in desiccation of the skin., The product may be absorbed through the skin.

Further information : The concentration of each substance should be borne in mind

in assessing the toxicological effects deriving from the

preparation.

Components:

2-butoxyethanol:

Acute oral toxicity : Acute toxicity estimate: 500 mg/kg, Converted acute

toxicity point estimate

Acute dermal toxicity : Acute toxicity estimate: 1.100 mg/kg, Converted acute toxicity

point estimate

N-methyl-2-pyrrolidone:

Acute oral toxicity : LD50: 4.150 mg/kg, Rat(male and female), OECD Test

Guideline 401

Acute inhalation toxicity : LC50: > 5,1 mg/l, 4 h, Rat, OECD Test Guideline 403

Acute dermal toxicity : LD50: > 5.000 mg/kg, Rat, OECD Test Guideline 402

:

SECTION 12: Ecological information

12.1 Toxicity

Toxicity to fish

Remarks:

No data is available on the product itself.

Toxicity to fish

N-methyl-2-pyrrolidone : LC50: > 500 mg/l

Exposure time: 96 h

Species: Oncorhynchus mykiss (rainbow trout)

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)

N-methyl-2-pyrrolidone : NOEC: 12,5 mg/l

Exposure time: 21 d

Species: Daphnia magna (Water flea) Method: OECD Test Guideline 211

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12.2 Persistence and degradability

Biodegradability : No data available

12.3 Bioaccumulative potential

Bioaccumulation : No data available

12.4 Mobility in soil

Mobility : No data available

12.5 Results of PBT and vPvB assessment

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher. This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6 Other adverse effects

Additional ecological

information

: There is no data available for this product.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product : The product should not be allowed to enter drains, water

courses or the soil.

Disposal together with normal waste is not allowed. Special

disposal required according to local regulations.

Contaminated packaging : Empty containers should be taken to an approved waste

handling site for recycling or disposal.

According to the European Waste Catalogue, Waste Codes

are not product specific, but application specific.

The Waste code should be assigned in discussion between the user, the producer and the waste disposal company. The following Waste Codes are only suggestions:150110*

SECTION 14: Transport information

14.1 UN number

Not regulated as a dangerous good

14.2 Proper shipping name

ADR

Not dangerous goods

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IMDG

Not dangerous goods

IATA

Not dangerous goods

14.3 Transport hazard class(es)

Not regulated as a dangerous good

14.4 Packing group

Not regulated as a dangerous good

14.5 Environmental hazards

ADR

Not dangerous goods

IMDG

Not dangerous goods

IATA

Not dangerous goods

14.6 Special precautions for user

Remarks Not classified as dangerous in the meaning of transport

regulations.

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

SECTION 15: Regulatory information

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

REACH - Candidate List of Substances of Very High Concern for Authorisation

: This product contains substances of very high concern (Regulation (EC) No 1907/2006 (REACH), Article 57).

(Article 59).

872-50-4 N-methyl-2-pyrrolidone

REACH - List of substances subject to authorisation

(Annex XIV)

: Not applicable

REACH - Restrictions on the manufacture, placing on the

: Banned and/or restricted

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market and use of certain dangerous substances, preparations and articles (Annex XVII)

| 872-50-4 | N-methyl-2-pyrrolidone |
|----------|------------------------|
| 107-98-2 | 1-methoxy-2-propanol |
| 108-01-0 | 2-dimethylaminoethanol |

MAL-Code-Number : 1-3 (1993)

145-m3 air/10 g

Risk classification according to

VbF

: Flash Point > 55 °C up to 100 °C, at 15 °C not miscible with water

Water contaminating class

(Germany)

: highly water endangering

VWVWS A4

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006. Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures

15.2 Chemical safety assessment

No data is available on the product itself.

SECTION 16: Other information

Full text of H-Statements referred to under sections 2 and 3.

| Harmful if swallowed. |
|-----------------------------------|
| Harmful in contact with skin. |
| Causes skin irritation. |
| Causes serious eye irritation. |
| Harmful if inhaled. |
| May cause respiratory irritation. |
| May damage the unborn child. |
| |

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.