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

1.1 Product identifier

Trade name	:	HYDROFAN TRANSOXIDE RED
Product code	:	LNHF0236

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

Use of the Substance/Mixture	:	Paints, varnishes and enamels
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 - This telephone number is available during office hours only. (8.00-18.00)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Skin sensitisation, Category 1 H317: May cause an allergic skin reaction.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms



: H317

Signal word	:	War

Hazard statements

May cause an allergic skin reaction.

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Precautionary statements :	Prevention:	
	P261	Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
	P272	Contaminated work clothing should not be allowed out of the workplace.
	P280	Wear protective gloves.
	Response:	
	P333 + P313	If skin irritation or rash occurs: Get medical advice/ attention.
	P362 + P364	Take off contaminated clothing and wash it before reuse.
	Disposal:	
	P501	Dispose of contents/ container to an approved waste disposal plant.

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Hazardous components which must be listed on the label:

- 2682-20-4 2-methylisothiazol-3(2H)-one
- 55965-84-9 reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)

2.3 Other hazards

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None known. 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	>= 1 - < 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
2-methylisothiazol- 3(2H)-one	2682-20-4 220-239-6	Acute Tox. 3; H301 Acute Tox. 2; H330	>= 0,0025 - < 0,025

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reaction mass of 5-	55965-84-9	Acute Tox. 3; H311 Skin Corr. 1B; H314 Eye Dam. 1; H318 Skin Sens. 1A; H317 Aquatic Acute 1; H400 Aquatic Chronic 1; H410 (Acute M=10) (Chronic M=1) Acute Tox. 3; H301	<= 0,0002
chloro-2-methyl-2H- isothiazol-3-one and 2- methyl-2H-isothiazol-3- one (3:1)	55965-64-9	Acute Tox. 3; H301 Acute Tox. 2; H330 Acute Tox. 2; H310 Skin Corr. 1C; H314 Eye Dam. 1; H318 Skin Sens. 1A; H317 Aquatic Acute 1; H400 Aquatic Chronic 1; H410 (Acute M=100) (Chronic M=100)	<= 0,0002
Substances with a work	place exposure limit :		
diiron trioxide	1309-37-1 215-168-2 01-2119457614-35		>= 1 - < 10

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. Put eye-washer on working place Remove contact lenses.
If swallowed	:	If accidentally swallowed obtain immediate medical attention. Do NOT induce vomiting.

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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 : Wear self-contained breathing apparatus for firefighting if necessary.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

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

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Environmental precautions	 Try to prevent the material from enter courses. If the product contaminates rivers and respective authorities. 	5
6.2 Mathada and matarials for a	antoinment and alconing up	

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
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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 materials.
German storage class	: 10 Combustible liquids
7.3 Specific end use(s)	

: This information is not available.

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SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Components	CAS-No.	Value	Control parameters	Update	Basis
diiron trioxide	1309-37-1	TWA		2007-01-01	ACGIH
			5 mg/m3		
2-	111-76-2	TWA	20 ppm	2000-06-16	2000/39/EC
butoxyethanol			98 mg/m3		
Further information	: skin: Identi	fies the poss	ibility of significant upta	ake through the skinIndic	cative
		STEL	50 ppm 246 mg/m3	2000-06-16	2000/39/EC
Further information	: skin: Identi	fies the poss	U	ake through the skinIndio	cative
1-methyl-2- pyrrolidone	872-50-4	TWA	10 ppm 40 mg/m3	2009-12-19	2009/161/EU
Further information	: skin: Identi	fies the poss	ibility of significant upta	ake through the skinIndic	cative
		STEL	20 ppm 80 mg/m3	2009-12-19	2009/161/EU
Further information	: skin: Identi	fies the poss	ibility of significant upta	ake through the skinIndic	cative

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
PNEC	
	Fresh water Value: 0,25 mg/l
	Marine water Value: 0,025 mg/l
	Fresh water sediment Value: 1,42 mg/kg
	Marine sediment

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	Value: 0,142 mg/kg	
	Soil Value: 0,138 mg/kg	
	Sewage treatment plant Value: 10 mg/kg	
8.2 Exposure controls		
Personal protective equipme	nt	
Respiratory protection	 Apply technical measures to comply exposure limits. This should be achieved by a good g practically feasible- by the use of a lo If the occupational exposure limits ca exceptional cases suitable respirator worn only for a short period of time. Respirator with combination filter for 141) 	peneral extraction and -if ocal exhaust ventilation. annot be met, in y equipment should be
Hand protection	 Latex gloves For prolonged or repeated contact us Protective gloves complying with EN Please observe the instructions rega breakthrough time which are provide gloves. Also take into consideration t conditions under which the product is danger of cuts, abrasion, and the cor If used in solution, or mixed with othe conditions which differ from EN 374, the CE approved gloves. Barrier creams may help to protect th they should however not be applied o occurred. Skin should be washed after contact. Wash your hands and put on barrier	374. rding permeability and d by the supplier of the the specific local s used, such as the ntact time. er substances, and under contact the supplier of the exposed areas of skin, once exposure has
Eye protection	: Chemical resistant goggles must be Ensure that eyewash stations and sa the workstation location.	
Skin and body protection	: Skin should be washed after contact. Wear suitable protective clothing.	
Environmental exposure con	trols	
General advice	 Try to prevent the material from ente courses. If the product contaminates rivers an respective authorities. 	-

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SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance	: liquid
Odour	: solvent-like
Flash point	: > 63 - 100 °C
Ignition temperature	: not determined
Lower explosion limit	: No data available
Upper explosion limit	: No data available
Auto-ignition temperature	: Not applicable
рН	: not determined
Freezing point	: Not applicable
Boiling point	: not determined
Vapour pressure	: 1,000 hPa at 50 °C
Density	: 1,0641 g/cm3
Water solubility	: not determined
Partition coefficient: n- octanol/water	: No data available
Solubility in other solvents	: not determined
Flow time	: 40 s 6 mm Method: ISO/DIN 2431 '84
Relative vapour density	: Not applicable
Evaporation rate	: not determined
9.2 Other information	
Solids by weight	: 23,55 %
Volatile organic compounds (VOC) content	: 6,36 %

(100) 0011011		
Water content	:	70,08 %

SECTION 10: Stability and reactivity

10.1 Reactivity

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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 metho	toxicity estimate: > 2.000 mg/kg, Calculation d
Acute inhalation toxicity	Acute toxic method	ity estimate: > 20 mg/l, 4 h, vapour, Calculation
Acute dermal toxicity	Acute toxic	ity estimate: > 2.000 mg/kg, Calculation method
Skin corrosion/irritation	removal of	r prolonged contact with the mixture may cause natural fat from the skin resulting in desiccation of he product may be absorbed through the skin.
Further information		ntration of each substance should be borne in mind g the toxicological effects deriving from the .
Components:		
N-methyl-2-pyrrolidone : Acute oral toxicity		4.150 mg/kg, Rat(male and female), OECD Test ine 401

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Acute inhalation toxicity	: LC50: > 5,1 mg/l, 4 h, Rat, OECD Te	st Guideline 403
Acute dermal toxicity	: LD50: > 5.000 mg/kg, Rat, OECD Te	st 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)
2-methyl-2H-isothiazol-3-one 5-Chloro-2-methyl- 3(2H)isothiazolone mixt. with 2-Methyl-3(2H)isothiazolone	: 10 : 100
Toxicity to daphnia and other a	quatic 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

12.2 Persistence and degradability

Biodegradability	: No data available
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12.3 Bioaccumulative potential

Bioaccumulation	:	No data available
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12.4 Mobility in soil

Mobility	:	No data available
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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.

12.6 Other adverse effects

Additional ecological	The product contains dangerous substances for the
information	environment (see chapter no 3).

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The concentration of each substance should be borne in mind in assessing the toxicological effects deriving from the preparation.

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

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

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Not dangerous goods

IATA

Not dangerous goods

14.6 Special precautions for user

Not applicable

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	This product contains substances of very high concern (Regulation (EC) No 1907/2006 (REACH), Article 57).
Concern for Authorisation	
(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 market and use of certain dangerous substances, preparations and articles (Annex XVII)	: 3
REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, preparations and articles (Annex XVII)	: Banned and/or restricted
872-50-4	N-methyl-2-pyrrolidone
Regulation (EC) No 649/2012 of the European Parliament and the Council concerning the export and import of dangerous chemicals	: Not applicable
MAL-Code-Number	: 1-3 (1993) 186-m3 air/10 g

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Storage class (TRGS 510)	: 10: Combustible liquids	
Risk classification according to VbF	: Flash Point > 55 °C up to 100 °C, at water	15 °C not miscible with
Water contaminating class (Germany)	 slightly hazardous to water Ordinance on facilities for handling s hazardous to water (AwSV) Classification according to AwSV, Ar 	

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.

H301	Toxic if swallowed.
H302	Harmful if swallowed.
H310	Fatal in contact with skin.
H311	Toxic in contact with skin.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H330	Fatal if inhaled.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H360D	May damage the unborn child.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

List of references

Regulation of the European Parliament and Council Regulation (EC) No 1272/2008 on classification, labeling and packaging of substances and mixtures (CLP)

Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC (Official Journal of the European Union L 396 from 30.12.2006, as amended). Regulation (EU) No 528/2012 of the European Parliament and of the Council of 22 May 2012 concerning the making available on the market and use of biocidal products This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

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Key or legend to abbreviations and acronyms used in the safety data sheet

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways: ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road; AICS - Australian Inventory of Chemical Substances; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN -Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx -Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS -Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx -Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP -Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk: IC50 - Half maximal inhibitory concentration: ICAO -International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization: KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC -No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIOC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID -Regulations concerning the International Carriage of Dangerous Goods by Rail: SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - Substance of Very High Concern; TCSI - Taiwan Chemical Substance Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

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.