

according to Regulation (EC) No 1907/2006

DURO Natural Rust Preventive Primer No. 623

Print date: 25.11.2015 Product code: 623 Page 1 of 9

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

1.1. Product identifier

DURO Natural Rust Preventive Primer No. 623

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

Use of the substance/mixture

For interior and exterior iron and steel surfaces; also suitable for radiators and heating pipes.

1.3. Details of the supplier of the safety data sheet

Company name: LIVOS Pflanzenchemie Forschungs- und

Entwicklungs GmbH & Co. KG

Street: Auengrund 10
Place: D-29559 Wrestedt

Telephone: +49(0)5825-88-0 Telefax: +49(0)5825-8864

e-mail: info@livos.de Internet: www.livos.de

Responsible Department: Produktsicherheit / Product Safety, Email: service@livos.de

1.4. Emergency telephone +49 (0)6132-84463 (24h - GBK GmbH)

number:

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Hazard categories:

Hazardous to the aquatic environment: Aquatic Chronic 2

Hazard Statements:

Toxic to aquatic life with long lasting effects.

2.2. Label elements

Pictograms:



Hazard statements

H411 Toxic to aquatic life with long lasting effects.

Precautionary statements

P273 Avoid release to the environment.

P501 Dispose of this material and its container to hazardous or special waste collection point.
P301+P310 IF SWALLOWED: rinse mouth. Do NOT induce vomiting. Immediately call a doctor.

Special labelling of certain mixtures

EUH208 Contains limonene (orange oil), Cobalt (2+)salts. May produce an allergic reaction.

2.3. Other hazards

Repeated exposure may cause skin dryness or cracking.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

 Revision No: 1,01,3
 GB - EN
 Revision date: 25.11.2015



according to Regulation (EC) No 1907/2006

DURO Natural Rust Preventive Primer No. 623

Print date: 25.11.2015 Product code: 623 Page 2 of 9

Chemical characterization

Linseed oil - stand oil - natural resin ester, mica, zinc phosphate, Isoaliphates, mineral pigments, titan dioxide, chalk, talcum, castor oil – stand oil, silicic acid, soy lecithin, citron oil, orange oil, dehydrated amino sugar, and drying agents free of lead (Co, Zr).

Hazardous components

CAS No	Chemical name					
	EC No	Index No	REACH No			
	Classification according to Regulation (EC) No. 1272/2008 [CLP]					
7779-90-0	trizinc bis(orthophosphate)					
	231-944-3	030-011-00-6				
	Aquatic Acute 1, Aqua					
5989-27-5	(R)-p-mentha-1,8-dien	.1 - < 1 %				
	227-813-5	601-029-00-7				
	Flam. Liq. 3, Skin Irrit. H315 H317 H400 H41					
1314-13-2	zinc oxide	.1 - < 1 %				
	215-222-5	030-013-00-7				
	Aquatic Acute 1, Aquatic Chronic 1; H400 H410					
136-52-7	Cobalt (2+)salts					
			01-2119524678-29			
	Repr. 2, Eye Irrit. 2, Skin Sens. 1, Aquatic Acute 1 (M-Factor = 1), Aquatic Chronic 1; H361f H319 H317 H400 H410					

Full text of H and EUH phrases: see section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

After inhalation

Provide fresh air. In case of respiratory tract irritation, consult a physician.

After contact with skin

Wash the affected area with soap and water. Take off contaminated clothing and wash it before reuse.

After contact with eyes

Rinse immediately carefully and thoroughly with eye-bath or water. In case of eye irritation consult an ophthalmologist.

After ingestion

Do NOT induce vomiting. Call a physician immediately.

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)., Extinguishing powder, Water spray jet. Co-ordinate fire-fighting measures to the fire surroundings.



according to Regulation (EC) No 1907/2006

DURO Natural Rust Preventive Primer No. 623

Print date: 25.11.2015 Product code: 623 Page 3 of 9

Unsuitable extinguishing media

Full water jet

5.2. Special hazards arising from the substance or mixture

Always be sure to store and then dispose of cleaning cloths, polishing pads, sponges, etc. that are still wet or even slightly moist with LIVOS oil in an airtight metal container or in water, as there is a danger of spontaneous combustion caused by the plant oil content. The product itself will not combust spontaneously.

5.3. Advice for firefighters

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

Additional information

Use water spray jet to protect personnel and to cool endangered containers. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Use personal protection equipment. Provide adequate ventilation.

6.2. Environmental precautions

Do not allow to enter into surface water or drains.

6.3. Methods and material for containment and cleaning up

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents). Treat the recovered material as prescribed in the section on waste disposal.

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

Keep container tightly closed. Provide adequate ventilation.

Advice on protection against fire and explosion

Keep away from sources of ignition. - No smoking. Keep away from heat.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep in a cool, well-ventilated place. Keep away from heat.

Advice on storage compatibility

Do not store together with: Oxidising agent, Strong acid, Strong alkali.

7.3. Specific end use(s)

For interior and exterior iron and steel surfaces; also suitable for radiators and heating pipes.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.2. Exposure controls

Protective and hygiene measures

Take off contaminated clothing. Wash hands before breaks and after work. When using do not eat or drink.



according to Regulation (EC) No 1907/2006

DURO Natural Rust Preventive Primer No. 623

Print date: 25.11.2015 Product code: 623 Page 4 of 9

Eye/face protection

Eye glasses with side protection.

Hand protection

When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

Skin protection

Wear suitable protective clothing.

Respiratory protection

In case of inadequate ventilation wear respiratory protection.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state: liquid

Colour: different colors
Odour: characteristic

Test method

pH-Value: not applicable

Changes in the physical state

Melting point: not determined Initial boiling point and boiling range: $> 100 \,^{\circ}\text{C}$ Flash point: $> 61 \,^{\circ}\text{C}$

Flammability

Solid: not applicable
Gas: not applicable

Explosive properties

No information available.

Lower explosion limits: Upper explosion limits:

Ignition temperature: > 200 °C

Auto-ignition temperature

Solid: not applicable
Gas: not applicable
Decomposition temperature: not determined

Oxidizing properties

No data available

Vapour pressure: not determined

Density (at 20 °C): 1,44 - 1,5 g/cm³

Water solubility: insoluble

Solubility in other solvents

not determined

Partition coefficient: not determined



according to Regulation (EC) No 1907/2006

DURO Natural Rust Preventive Primer No. 623

Print date: 25.11.2015 Product code: 623 Page 5 of 9

Vapour density: not determined Evaporation rate: not determined

9.2. Other information

Solid content: not determined

Always be sure to store and then dispose of cleaning cloths, polishing pads, sponges, etc. that are still wet or even slightly moist with LIVOS oil in an airtight metal container or in water, as there is a danger of spontaneous combustion caused by the plant oil content. The product itself will not combust spontaneously.

SECTION 10: Stability and reactivity

10.1. Reactivity

No hazardous reaction when handled and stored according to provisions.

10.2. Chemical stability

The product is stable under storage at normal ambient temperatures.

10.3. Possibility of hazardous reactions

No known hazardous reactions.

10.4. Conditions to avoid

Keep away from heat.

10.5. Incompatible materials

Strong acid. Oxidising agent, strong

10.6. Hazardous decomposition products

No known hazardous decomposition products.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity

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

CAS No	Chemical name				
	Exposure routes	Method	Dose	Species	Source
5989-27-5	(R)-p-mentha-1,8-diene, d-limonene				
	oral	LD50	> 2000 mg/kg	Rat	
	dermal	LD50	> 2000 mg/kg	Rabbit	IUCLID
1314-13-2	zinc oxide				
	oral	LD50	> 5000 mg/kg	Rat	IUCLID

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.

STOT-single exposure

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

Severe effects after repeated or prolonged exposure

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.



according to Regulation (EC) No 1907/2006

DURO Natural Rust Preventive Primer No. 623

Print date: 25.11.2015 Product code: 623 Page 6 of 9

Aspiration hazard

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

SECTION 12: Ecological information

12.1. Toxicity

The product has not been tested.

CAS No	Chemical name					
	Aquatic toxicity	Method	Dose	[h] [d]	Species	Source
5989-27-5	(R)-p-mentha-1,8-diene, d-limonene					
	Acute fish toxicity	LC50	0,7 mg/l	96 h	Pimephales promelas	
	Acute crustacea toxicity	EC50	0,42 mg/l	48 h	Daphnia magna	
136-52-7	Cobalt (2+)salts					
	Acute algae toxicity	ErC50	0,528 mg/l		Aquatic plant	

12.2. Persistence and degradability

The product has not been tested.

12.3. Bioaccumulative potential

The product has not been tested.

Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
5989-27-5	(R)-p-mentha-1,8-diene, d-limonene	4,23

12.4. Mobility in soil

The product has not been tested.

12.5. Results of PBT and vPvB assessment

The product has not been tested.

12.6. Other adverse effects

No information available.

Further information

Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Advice on disposal

Do not allow to enter into surface water or drains. Dispose of waste according to applicable legislation. The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC,

specific to the industry and process.

Contaminated packaging

Wash with plenty of water. Completely emptied packages can be recycled.

SECTION 14: Transport information

Land transport (ADR/RID)

14.1. UN number: UN 3082

14.2. UN proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

14.3. Transport hazard class(es): 9
14.4. Packing group: III

 Revision No: 1,01,3
 GB - EN
 Revision date: 25.11.2015



according to Regulation (EC) No 1907/2006

DURO Natural Rust Preventive Primer No. 623

Print date: 25.11.2015 Product code: 623 Page 7 of 9

Hazard label: 9
Classification code: M6

Special Provisions: 274 335 375 601

Limited quantity:5 LExcepted quantity:E1Transport category:3Hazard No:90Tunnel restriction code:E

Other applicable information (land transport)

No information available.

Inland waterways transport (ADN)

<u>14.1. UN number:</u> UN 3082

14.2. UN proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

14.3. Transport hazard class(es):914.4. Packing group:IIIHazard label:9Classification code:M6

Special Provisions: 274 335 375 601

Limited quantity: 5 L Excepted quantity: E1

Other applicable information (inland waterways transport)

No information available.

Marine transport (IMDG)

14.1. UN number: UN 3082

14.2. UN proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

14.3. Transport hazard class(es):914.4. Packing group:IIIHazard label:9

Special Provisions: 274, 335, 969

Limited quantity: 5 L
Excepted quantity: E1
EmS: F-A, S-F

Other applicable information (marine transport)

No information available.

Air transport (ICAO)

14.1. UN number: UN 3082

14.2. UN proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

14.3. Transport hazard class(es):914.4. Packing group:IIIHazard label:9

Special Provisions:

Limited quantity Passenger:

Passenger LQ:

Excepted quantity:

A97 A158 A197

30 kg G

Y964

Excepted quantity:

E1

IATA-packing instructions - Passenger: 964
IATA-max. quantity - Passenger: 450 L



according to Regulation (EC) No 1907/2006

DURO Natural Rust Preventive Primer No. 623

Print date: 25.11.2015 Product code: 623 Page 8 of 9

IATA-packing instructions - Cargo: 964
IATA-max. quantity - Cargo: 450 L

Other applicable information (air transport)

No information available.

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: yes

Danger releasing substance: Trizincbis(orthophosphate)

14.6. Special precautions for user

No information available.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

not applicable

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): 11 - 12 % 2004/42/EC (VOC): 165 - 172 g/l

Additional information

To follow: 850/2004/EC, 79/117/EEC, 689/2008/EC

National regulatory information

Water contaminating class (D): 2 - water contaminating

15.2. Chemical safety assessment

Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information

Changes

This data sheet contains changes from the previous version in section(s): 2,3,5,7,9,11,14,15.

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)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonized System of Classification and Labelling of Chemicals EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service LC50: Lethal concentration, 50%

LD50: Lethal dose, 50%

Relevant H- and EUH-phrases (Number and full text)

NZZ0	Flammable liquid and vapour.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H361f	Suspected of damaging fertility.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.



according to Regulation (EC) No 1907/2006

DURO Natural Rust Preventive Primer No. 623

Print date: 25.11.2015 Product code: 623 Page 9 of 9

EUH208

Contains limonene (orange oil), Cobalt (2+)salts. May produce an allergic reaction.

Further Information

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.

(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)

Revision No: 1,01,3 GB - EN Revision date: 25.11.2015