



Safety Data Sheet

according to Regulation (EC) No 1907/2006

Lysoformin Plus

Revision date: 18.10.2017

Product code: LYS649

Page 1 of 13

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

1.1. Product identifier

Lysoformin Plus

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

Use of the substance/mixture

Wipe disinfection of surfaces, objects and medical devices For professional use.

1.3. Details of the supplier of the safety data sheet

Company name: Lysoform Dr. Hans Rosemann GmbH
Street: Kaiser-Wilhelm-Straße 133
Place: D-12247 Berlin
Telephone: +49 (0)30 77992-0
Contact person: Wissenschaftlich-Technische Abteilung Berlin
e-mail: kontakt@lysoform.de
Internet: www.lysoform.de

Telefax: +49 (0)30 77992-219

Telephone: +49 (0)30 / 77992-216

1.4. Emergency telephone number: +49 (0)89 19240 (Giftnotruf München Toxikologische Abteilung)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No. 1272/2008

Hazard categories:

Acute toxicity: Acute Tox. 4

Acute toxicity: Acute Tox. 4

Skin corrosion/irritation: Skin Corr. 1

Respiratory or skin sensitisation: Skin Sens. 1

Specific target organ toxicity - repeated exposure: STOT RE 2

Hazardous to the aquatic environment: Aquatic Acute 1

Hazardous to the aquatic environment: Aquatic Chronic 1

Hazard Statements:

Harmful if swallowed.

Harmful if inhaled.

Causes severe skin burns and eye damage.

May cause an allergic skin reaction.

May cause damage to organs through prolonged or repeated exposure.

Very toxic to aquatic life.

Very toxic to aquatic life with long lasting effects.

2.2. Label elements

Regulation (EC) No. 1272/2008

Hazard components for labelling

Bis-(3-aminopropyl)dodecylamin

polyhexamethylene biguanide hydrochloride

(R)-p-mentha-1,8-diene, d-limonene

didecyldimethylammonium chloride

Signal word: Danger**Pictograms:**

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

Lysoformin Plus

Revision date: 18.10.2017

Product code: LYS649

Page 2 of 13

Hazard statements

H302	Harmful if swallowed.
H332	Harmful if inhaled.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H373	May cause damage to organs through prolonged or repeated exposure.
H410	Very toxic to aquatic life with long lasting effects.

Precautionary statements

P280	Wear protective gloves, protective clothing and eye protection.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P310	In case of accident: Call a doctor immediately.
P273	Avoid release to the environment.

Additional advice on labelling

The danger "Harmful by inhalation" has been described only for the formation of aerosol or mist.

2.3. Other hazards

No information available.

SECTION 3: Composition/information on ingredients**3.2. Mixtures****Hazardous components**

CAS No	Chemical name	Quantity		
	EC No	Index No	REACH No	
	Classification according to Regulation (EC) No. 1272/2008 [CLP]			
2372-82-9	Bis-(3-aminopropyl)dodecylamin			20 - < 30 %
	219-145-8			
	Acute Tox. 3, Skin Corr. 1A, STOT RE 2, Aquatic Acute 1 (M-Factor = 10), Aquatic Chronic 1; H301 H314 H373 H400 H410			
1802181-67-4	polyhexamethylene biguinide hydrochloride			5 - < 10 %
	Acute Tox. 2, Acute Tox. 4, Eye Dam. 1, Skin Sens. 1B, STOT SE 3, Aquatic Acute 1, Aquatic Chronic 1; H330 H302 H318 H317 H335 H400 H410			
69011-36-5	Isotridecanol, ethoxylated			1 - < 5 %
	931-138-8			
	Acute Tox. 4, Eye Dam. 1; H302 H318			
7173-51-5	didecylidimethylammonium chloride			1 - < 5 %
	230-525-2	612-131-00-6		
	Acute Tox. 3, Skin Corr. 1B, Aquatic Acute 1, Aquatic Chronic 2; H301 H314 H400 H411			
67-63-0	propan-2-ol; isopropyl alcohol; isopropanol			1 - < 5 %
	200-661-7	603-117-00-0	01-2119457558-25	
	Flam. Liq. 2, Eye Irrit. 2, STOT SE 3; H225 H319 H336			
5989-27-5	(R)-p-mentha-1,8-diene, d-limonene			0.1 - < 1 %
	227-813-5	601-029-00-7		
	Flam. Liq. 3, Skin Irrit. 2, Skin Sens. 1, Asp. Tox. 1, Aquatic Acute 1, Aquatic Chronic 1; H226 H315 H317 H304 H400 H410			

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



Safety Data Sheet

according to Regulation (EC) No 1907/2006

Lysoformin Plus

Revision date: 18.10.2017

Product code: LYS649

Page 3 of 13

Labelling for contents according to Regulation (EC) No 648/2004

< 5 % non-ionic surfactants, perfumes (Limonene, Linalool, Hexyl cinnamal, Citral, Coumarin, Hydroxycitronellal, Eugenol).

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

Call a physician immediately. If medical advice is needed, have product container or label at hand.

After inhalation

Provide fresh air.

After contact with skin

Take off immediately all contaminated clothing and wash it before reuse. Wash with plenty of water.

After contact with eyes

In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist.

After ingestion

Rinse mouth immediately and drink plenty of water. Call emergency telephone number.

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

none

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Water spray jet, Carbon dioxide, Extinguishing powder, Foam

5.2. Special hazards arising from the substance or mixture

In case of fire: Nitrogen oxides (NOx) Carbon monoxide Carbon dioxide (CO₂)

5.3. Advice for firefighters

Wear a self-contained breathing apparatus and chemical protective clothing. Full protection suit.

Additional information

Use water spray jet to protect personnel and to cool endangered containers. Suppress gases/vapours/mists with water spray jet. 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

Provide adequate ventilation. Do not breathe gas/fumes/vapour/spray. Avoid contact with skin, eyes and clothes. Use personal protection equipment.

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

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

Lysoformin Plus

Revision date: 18.10.2017

Product code: LYS649

Page 4 of 13

SECTION 7: Handling and storage**7.1. Precautions for safe handling****Advice on safe handling**

Provide adequate ventilation. To prepare a dilution, always first fill in the water and then add the product.

Advice on protection against fire and explosion

No special fire protection measures are necessary.

Further information on handling

Wash hands before breaks and after work. Keep away from food, drink and animal feedingstuffs. Remove contaminated, saturated clothing immediately. Avoid contact with eyes.

7.2. Conditions for safe storage, including any incompatibilities**Requirements for storage rooms and vessels**

Keep only in the original container in a cool, well-ventilated place. Keep container dry. Avoid: Frost. Keep out of the reach of children.

Advice on storage compatibility

Keep away from food, drink and animal feedingstuffs.

Further information on storage conditions

Protect from sunlight.

7.3. Specific end use(s)

none

SECTION 8: Exposure controls/personal protection**8.1. Control parameters****Exposure limits (EH40)**

CAS No	Substance	ppm	mg/m ³	fibres/ml	Category	Origin
67-63-0	Propan-2-ol	400	999		TWA (8 h)	WEL
		500	1250		STEL (15 min)	WEL
57-55-6	Propane-1,2-diol, particulates	-	10		TWA (8 h)	WEL
		-	-		STEL (15 min)	WEL

DNEL/DMEL values

CAS No	Substance	Exposure route	Effect	Value
67-63-0	propan-2-ol; isopropyl alcohol; isopropanol			
	Worker DNEL, long-term	inhalation	systemic	500 mg/m ³
	Worker DNEL, long-term	dermal	systemic	888 mg/kg bw/day
	Consumer DNEL, long-term	inhalation	systemic	89 mg/m ³
	Consumer DNEL, long-term	dermal	systemic	319 mg/kg bw/day
	Consumer DNEL, long-term	oral	systemic	26 mg/kg bw/day

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

Lysoformin Plus

Revision date: 18.10.2017

Product code: LYS649

Page 5 of 13

PNEC values

CAS No	Substance	Value
67-63-0	propan-2-ol; isopropyl alcohol; isopropanol	
	Environmental compartment	
	Freshwater	140.9 mg/l
	Marine water	140.9 mg/l
	Freshwater sediment	552 mg/l
	Marine sediment	552 mg/l
	Micro-organisms in sewage treatment plants (STP)	2251 mg/l
	Soil	28 mg/l

8.2. Exposure controls**Protective and hygiene measures**

Keep away from food, drink and animal feedingstuffs. Remove contaminated, saturated clothing immediately. Wash hands before breaks and after work. Avoid contact with eyes and skin.

Eye/face protection

When handling the concentrated product (for example, transferring) use tight fitting eye protection.

Hand protection

When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. Chemical protective gloves must specifically chosen for each workplace depending on the concentration and amount of hazardous substances, temperature and contact time.

Recommendation:

NBR (Nitrile rubber)

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.

To prevent skin irritation in the professional field - regardless of actual contact with disinfectants - it is recommended to use: • a fast absorbing skin care cream in between if necessary. • a greasy cream after washing at the end of work or before breaks.

Skin protection

Wear suitable protective clothing.

Respiratory protection

none

SECTION 9: Physical and chemical properties**9.1. Information on basic physical and chemical properties**

Physical state: liquid
Colour: yellow
Odour: characteristic

Test method

pH-Value (at 20 °C): (50g/l) ca. 10

Changes in the physical state

Melting point: not determined
Initial boiling point and boiling range: not determined

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

Lysoformin Plus

Revision date: 18.10.2017

Product code: LYS649

Page 6 of 13

Flash point: >70 °C DIN 51755

Flammability

Solid: not applicable

Gas: not applicable

Lower explosion limits: not determined

Upper explosion limits: not determined

Auto-ignition temperature

Solid: not applicable

Gas: not applicable

Decomposition temperature: not determined

Oxidizing properties

Not oxidising.

Vapour pressure: not determined

Density (at 20 °C): ca. 1 g/cm³

Water solubility: very soluble

Solubility in other solvents

not determined

Partition coefficient: not applicable

Vapour density: not determined

Evaporation rate: not determined

9.2. Other information

none

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 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.

10.4. Conditions to avoid

Safe handling: see section 7

10.5. Incompatible materials

No information available.

10.6. Hazardous decomposition products

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

SECTION 11: Toxicological information**11.1. Information on toxicological effects****Acute toxicity**

Harmful if swallowed.

Harmful if inhaled.

ATEmix tested

	Dose	Species	Source
LD50, oral	500-1000 mg/kg	Rat	OECD 423

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

Lysoformin Plus

Revision date: 18.10.2017

Product code: LYS649

Page 7 of 13

ATEmix calculated

ATE (inhalative vapour) 5.62 mg/l; ATE (inhalative aerosol) 4.157 mg/l

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
2372-82-9	Bis-(3-aminopropyl)dodecylamin				
	oral	LD50 261 mg/kg	Rat		
	dermal	LD50 >600 mg/kg	Rat		
1802181-67-4	polyhexamethylene biguinide hydrochloride				
	oral	LD50 >400 mg/kg	Rat		OECD 423
	inhalative vapour	ATE 0.5 mg/l			
	inhalative (4 h) aerosol	LC50 0.322 mg/l	Rat		OECD 403
69011-36-5	Isotridecanol, ethoxylated				
	oral	ATE 500 mg/kg			
7173-51-5	didecyldimethylammonium chloride				
	oral	LD50 238 mg/kg	Rat		OECD 410
	dermal	LD50 3342 mg/kg	Rabbit		
67-63-0	propan-2-ol; isopropyl alcohol; isopropanol				
	oral	LD50 5840 mg/kg	Rat		
	dermal	LD50 13900 mg/kg	Rabbit		
	inhalative (4 h) vapour	LC50 37.5 mg/l	Rat		OECD 403
5989-27-5	(R)-p-mentha-1,8-diene, d-limonene				
	oral	LD50 > 2000 mg/kg	Rat		
	dermal	LD50 > 2000 mg/kg	Rabbit	IUCLID	

Irritation and corrosivity

Causes severe skin burns and eye damage.

Bis-(3-aminopropyl)dodecylamine:

In case of skin contact: OECD 404 Rabbit 3 min: corrosive

Didecyldimethylammoniumchloride:

In case of skin contact: OECD 404 Rabbit 3 min: Irritant

Polyhexamethylenbiguanid-HCl

In case of skin contact: OEDC 404 Rabbit - slightly irritant

Risk of serious damage to eyes. OEDC 405 Rabbit

Sensitising effects

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

Lysoformin Plus

Revision date: 18.10.2017

Product code: LYS649

Page 8 of 13

May cause an allergic skin reaction. (polyhexamethylene biguinide hydrochloride; (R)-p-mentha-1,8-diene, d-limonene)

Bis-(3-aminopropyl)dodecylamine:
OECD 406 Guinea pig: negative.

Didecyldimethylammoniumchloride:
Buehler Test US-EPA Guinea pig: negative.

Carcinogenic/mutagenic/toxic effects for reproduction

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

Bis-(3-aminopropyl)dodecylamine:
negative. OECD 471 (Ames test) , Salmonella typhimurium
negative. Gene mutation , CH-cells V79 OECD 476
negative. Chromosomal aberrations Test in vitro , CH-cells V79 OECD 473

Didecyldimethylammoniumchloride:
negative. OECD 471 (Ames test) , Salmonella typhimurium
negative. Gene mutation , CHO-cells
negative. Chromosomal aberrations Test, CHO-cells
negative. Chromosomal aberrations Test oral Rat OECD 475

STOT-single exposure

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

STOT-repeated exposure

May cause damage to organs through prolonged or repeated exposure. (Bis-(3-aminopropyl)dodecylamin)

Bis-(3-aminopropyl)dodecylamine:
NOAEL(C): 9 mg/kg Exposure route oral 90 d Rat
NOAEL(C): 20 mg/kg Exposure route oral 90 d Dog
NOAEL(C): 15 mg/kg Exposure route dermal 90 d Rat

Aspiration hazard

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

SECTION 12: Ecological information**12.1. Toxicity**

Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.



Safety Data Sheet

according to Regulation (EC) No 1907/2006

Lysoformin Plus

Revision date: 18.10.2017

Product code: LYS649

Page 9 of 13

CAS No	Chemical name					
	Aquatic toxicity	Dose	[h] [d]	Species	Source	Method
2372-82-9	Bis-(3-aminopropyl)dodecylamin					
	Acute fish toxicity	LC50 mg/l	0.68	96 h	Oncorhynchus mykiss (Rainbow trout)	
	Acute algae toxicity	ErC50 mg/l	0.054	96 h	Pseudokirchneriella subcapitata	
	Acute crustacea toxicity	EC50 mg/l	0.073	48 h	Daphnia magna (Big water flea)	
	Algae toxicity	NOEC mg/l	0,0069	72 d	Desmodesmus subspicatus	
	Crustacea toxicity	NOEC mg/l	0.024	21 d	Daphnia magna (Big water flea)	
	Acute bacteria toxicity	(18 mg/l)		3 h	Activated sludge	
1802181-67-4	polyhexamethylene biguinide hydrochloride					
	Acute fish toxicity	LC50 mg/l	0.321	96 h	Oncorhynchus mykiss (Rainbow trout)	
	Acute algae toxicity	ErC50 mg/l	0.0206	72 h	Pseudokirchneriella subcapitata	
	Acute crustacea toxicity	EC50 mg/l	0.156	48 h	Daphnia magna (Big water flea)	
	Fish toxicity	NOEC mg/l	0.00498	28 d	Pimephales promelas (fathead minnow)	
	Crustacea toxicity	NOEC mg/l	0.00544	21 d	Daphnia magna (Big water flea)	
69011-36-5	Isotridecanol, ethoxylated					
	Acute fish toxicity	LC50 mg/l	1 - 10	96 h	Cyprinus carpio (Common Carp)	
	Acute algae toxicity	ErC50 mg/l	1 - 10	72 h	Desmodesmus subspicatus	
	Acute crustacea toxicity	EC50 mg/l	1 - 10	48 h		
	Acute bacteria toxicity	(140 mg/l)			Activated sludge	
7173-51-5	didecylidimethylammonium chloride					
	Acute fish toxicity	LC50 mg/l	0.19	96 h	Pimephales promelas (fathead minnow)	
	Acute algae toxicity	ErC50 mg/l	0.026	96 h	Pseudokirchneriella subcapitata	OECD 201
	Acute crustacea toxicity	EC50 mg/l	0.062	48 h	Daphnia magna (Big water flea)	OECD 211
	Fish toxicity	NOEC mg/l	0.032	34 d	Danio rerio	OECD 210
	Crustacea toxicity	NOEC mg/l	0.016	21 d	Daphnia magna (Big water flea)	OECD 211
	Acute bacteria toxicity	(11 mg/l)		3 h	Activated sludge	OECD 209
67-63-0	propan-2-ol; isopropyl alcohol; isopropanol					
	Acute fish toxicity	LC50 mg/l	9640	96 h	Pimephales promelas (fathead minnow)	
	Acute algae toxicity	ErC50 mg/l	>100	72 h	Selenastrum capricornutum	

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

Lysoformin Plus

Revision date: 18.10.2017

Product code: LYS649

Page 10 of 13

	Acute crustacea toxicity	EC50 mg/l	9714	48 h	Daphnia magna (Big water flea)		
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 mg/l	0,42	48 h	Daphnia magna		

12.2. Persistence and degradability

The surfactant contained in this mixture complies with the biodegradability criteria as laid down in Regulation (EC) No. 648/2004 on detergents.

CAS No	Chemical name	Method	Value	d	Source
2372-82-9	Bis-(3-aminopropyl)dodecylamin				
	OECD 303/ EEC 92/69/V, C10		96%	15	
	OECD 302B/ ISO 9888/ EEC 92/69/V, C.9		91%	28	
	OECD 301D/ EEC 92/69/V, C.4-E		79%	28	
	Readily biodegradable (according to OECD criteria).				
69011-36-5	Isotridecanol, ethoxylated				
	OECD 301B/ ISO 9439/ EEC 92/69/V, C.4-C		>60%	28	
	Readily biodegradable (according to OECD criteria).				
7173-51-5	didecyldimethylammonium chloride				
	OECD 301B/ ISO 9439/ EEC 92/69/V, C.4-C		72%	28	
	Readily biodegradable (according to OECD criteria).				
	OECD 301A/ ISO 7827/ EEC 92/69/V, C.4-A		93.3	28	
	OECD 303/ EEC 92/69/V, C10		91%	70	

12.3. Bioaccumulative potential

The product has not been tested.

Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
67-63-0	propan-2-ol; isopropyl alcohol; isopropanol	0.05
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 substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

12.6. Other adverse effects

No information available.

Further information

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil.

SECTION 13: Disposal considerations**13.1. Waste treatment methods****Advice on disposal**

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil. Dispose of waste according to applicable legislation.

Waste disposal number of waste from residues/unused products

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

Lysoformin Plus

Revision date: 18.10.2017

Product code: LYS649

Page 11 of 13

070601 WASTES FROM ORGANIC CHEMICAL PROCESSES; wastes from the MFSU of fats, grease, soaps, detergents, disinfectants and cosmetics; aqueous washing liquids and mother liquors; hazardous waste

Waste disposal number of contaminated packaging

150102 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED; packaging (including separately collected municipal packaging waste); plastic packaging

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 1903
14.2. UN proper shipping name: DISINFECTANT, LIQUID, CORROSIVE, N.O.S. (Bis-(3-aminopropyl)dodecylamin)
14.3. Transport hazard class(es): 8
14.4. Packing group: III
Hazard label: 8



Classification code: C9
Special Provisions: 274
Limited quantity: 5 L
Excepted quantity: E1
Transport category: 3
Hazard No: 80
Tunnel restriction code: E

Marine transport (IMDG)

14.1. UN number: UN 1903
14.2. UN proper shipping name: DISINFECTANT, LIQUID, CORROSIVE, N.O.S. (Bis-(3-aminopropyl)dodecylamin)
14.3. Transport hazard class(es): 8
14.4. Packing group: III
Hazard label: 8



Special Provisions: 223, 274
Limited quantity: 5 L
Excepted quantity: E1
EmS: F-A, S-B

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number: UN 1903
14.2. UN proper shipping name: DISINFECTANT, LIQUID, CORROSIVE, N.O.S. (Bis-(3-aminopropyl)dodecylamin)
14.3. Transport hazard class(es): 8
14.4. Packing group: III

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

Lysoformin Plus

Revision date: 18.10.2017

Product code: LYS649

Page 12 of 13

Hazard label:

8



Special Provisions:

A3 A803

Limited quantity Passenger:

1 L

Passenger LQ:

Y841

Excepted quantity:

E1

IATA-packing instructions - Passenger:

852

IATA-max. quantity - Passenger:

5 L

IATA-packing instructions - Cargo:

856

IATA-max. quantity - Cargo:

60 L

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS:

yes

**14.6. Special precautions for user**

Warning: strongly corrosive.

14.7. Transport in bulk according to Annex II of Marpol 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****Additional information**

To follow: Regulation (EC) No. 648/2004 (Detergents regulation), 850/2004/EC, 1107/2009/EC, 649/2012/EC. 1907/2006 REACH / 1272/2008 CLP GHS

National regulatory information

Employment restrictions:

Observe restrictions to employment for juvenils according to the 'juvenile work protection guideline' (94/33/EC). Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.

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): 2,3,9,15.

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

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

Lysoformin Plus

Revision date: 18.10.2017

Product code: LYS649

Page 13 of 13

CAS: Chemical Abstracts Service

LC50: Lethal concentration, 50%

LD50: Lethal dose, 50%

Classification for mixtures and used evaluation method according to Regulation (EC) No. 1272/2008 [CLP]

Classification	Classification procedure
Acute Tox. 4; H302	
Acute Tox. 4; H332	
Skin Corr. 1; H314	
Skin Sens. 1; H317	
STOT RE 2; H373	
Aquatic Acute 1; H400	
Aquatic Chronic 1; H410	

Relevant H and EUH statements (number and full text)

H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
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.
H336	May cause drowsiness or dizziness.
H373	May cause damage to organs through prolonged or repeated exposure.
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.

Further Information

The data contained in this safety data sheet is based on our current knowledge and experience and describe the product with regard to safety requirements. The information should not be regarded in any way as a description of the product's properties (product specification). Agreed characteristics nor the suitability of the product for a specific purpose can not be derived from the information in the SDS. We will advise you as to whether and under what circumstances, the preparation is suitable for a defined purpose. Proprietary rights and existing laws and regulations must be respected by the receiver of our product.

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