Printing date 03.03.2015

Version number 102

Revision: 10.02.2015

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

- 1.1 Product identifier
- Trade name LPZ/II
- 1.2 Relevant identified uses of the substance or mixture and uses advised against No further relevant information available.
- -1.3 Details of the supplier of the safety data sheet
- Manufacturer/Supplier: Riepe GmbH & Co. KG Theodor Rosenbaum Str. 28-30 D-32257 Bünde Tel.: +49(0)5223-60990 Fax: +49(0)5223-63959 email: rene@riepe.eu
- Informing department: Mr. Riepe +49(0) 5223-60990
- 1.4 Emergency telephone number: Poison Control Center, Mainz Tel. 00 49/61 31/19 240

Emergency Phone: 1-800-424-9300 CHEMTREC 24 Hrs

Information Phone #: 336-884-1846 ADWOOD CORPORATION - NC

SECTION 2: Hazards identification

-2.1 Classification of the substance or mixture

- Classification according to Regulation (EC) No 1272/2008

Flam. Liq. 2 H225 Highly flammable liquid and vapour.

Eye Irrit. 2 H319 Causes serious eye irritation.

- Classification according to Directive 67/548/EEC or Directive 1999/45/EC

F; Highly flammable

R11: Highly flammable.

- Classification system:

The classification is in line with current EC lists. It is expanded, however, by information from technical literature and by information furnished by supplier companies.

- 2.2 Label elements

- Labelling according to Regulation (EC) No 1272/2008

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



- Signal word Danger

- Hazard statements H225 Highly flammable liquid and vapour.

H319 Causes serious eye irritation.

- Precautionary statements

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

P370+P378 In case of fire: Use for extinction: CO2, powder or water spray.

P403+P235 Store in a well-ventilated place. Keep cool.

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.

Printing date 03.03.2015

Version number 102

Revision: 10.02.2015

(Contd. of page 1)

Trade name LPZ/II

- vPvB: Not applicable.

SECTION 3: Composition/information on ingredients

- 3.2 Mixtures
- Description: Mixture of the substances listed below with harmless additions

- Dangerous components:			
CAS: 64-17-5	ethanol	Xi R36; F R11	90 - 99%
EINECS: 200-578-6		Flam. Liq. 2, H225; Eye Irrit. 2, H319	1
Reg.nr.: 01-2119457610-43	}		
	abherent oil	Xn R65	2.5-10%
		Asp. Tox. 1, H304	1
Additional information Fo	the wording of the list	drick phrases refer to section 16	

-Additional information For the wording of the listed risk phrases refer to section 16.

SECTION 4: First aid measures

- -4.1 Description of first aid measures
- General advice: Instantly remove any clothing soiled by the product.
- After inhalation

Provide fresh-air circulation. If symptoms continue, consult a doctor. In case of respiratory failure or breathing irregularities, commence resuscitation or oxygen inhalation and immediately consult a doctor. In case of unconsciousness, place and transport the patient in a recovery position.

- After skin contact

Remove contaminated clothing immediately. Wash affected areas with plenty of water und soap. If irritation continues, contact a doctor.

- After eye contact Rinse immediately opened eye for several minutes under running water. Then consult doctor.
- After swallowing
- Rinse out mouth and then drink plenty of water.

Do not induce vomiting; instantly call for medical help.

- 4.2 Most important symptoms and effects, both acute and delayed No further relevant information available.
- 4.3 Indication of any immediate medical attention and special treatment needed
- No further relevant information available.

SECTION 5: Firefighting measures

- 5.1 Extinguishing media
- Suitable extinguishing agents
- CO2, extinguishing powder or water jet. Fight larger fires with water jet or alcohol-resistant foam.
- For safety reasons unsuitable extinguishing agents Water with a full water jet.
- 5.2 Special hazards arising from the substance or mixture

Can form explosive gas-air mixtures. In case of incomplete combustion carbon monoxide can arise. Fumes are heavier than air and distributed over ground. Inflammation is possible from a far distance.

- 5.3 Advice for firefighters
- Protective equipment:
- *Wear self-contained breathing apparatus. See section 8.*

- Additional information Endangered containers in the surrounding area should be cooled with a water-hose.

Printing date 03.03.2015

Version number 102

Revision: 10.02.2015

```
Trade name LPZ/II
```

(Contd. of page 2)

SECTION 6: Accidental release measures

- 6.1 Personal precautions, protective equipment and emergency procedures Wear protective equipment and keep unprotected persons away. Extinguish naked flames. Remove flammable sources. No smoking. Avoid sparks. Avoid contact with skin, eyes and clothing. Avoid inhalation of fumes. Air contaminated rooms thoroughly. Protect against electrostatic sparks. - 6.2 Environmental precautions: Prevent material from reaching sewage system, holes and cellars. Dilute with much water. If large amounts are released, the authorities must be informed. - 6.3 Methods and material for containment and cleaning up: Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust). Ensure adequate ventilation. Contaminated material has to be disposed as waste (see item 13). - 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 information on disposal.

SECTION 7: Handling and storage

- 7.1 Precautions for safe handling Keep containers tightly sealed. Ensure good ventilation/exhaustion at the workplace. Avoid contact with eyes or skin.

- Information about protection against explosions and fires: Keep ignition sources away - Do not smoke. Protect against electrostatic charges.
- 7.2 Conditions for safe storage, including any incompatibilities - Storage
- Protect against direct sunlight, other sources of heat and ignition. Keep containers tightly closed. Store in cool, dry conditions.
- Requirements to be met by storerooms and containers: Observe official regulations on storage and handling of water harzardous substances
- Information about storage in one common storage facility: Store away from oxidising agents.
- Further information about storage conditions:
- Pay attention to regulations/technical rules for the storage of combustible liquids.
- -7.3 Specific end use(s) No further relevant information available.

SECTION 8: Exposure controls/personal protection

- Additional information about design of technical systems: Room ventilation i.e. vacuum suction. Measures to be taken against electro-static sparks.
- 8.1 Control parameters

- Components with critical values that require monitoring at the workplace:

64-17-5 ethanol (50-100%)

WEL Long-term value: 1920 mg/m³, 1000 ppm

- Additional information: The lists that were valid during the compilation were used as basis.

Printing date 03.03.2015

Version number 102

Revision: 10.02.2015

Trade name LPZ/II

(Contd. of page 3)

- 8.2 Exposure controls
- Personal protective equipment
- General protective and hygienic measures
Wash hands during breaks and at the end of the work.
Avoid contact with the eyes and skin.
Gases, fumes and aerosols should not be inhaled.
- Breathing equipment:
Not necessary if room is well-ventilated.
In case of brief exposure or low pollution use breathing filter apparatus. In case of intensive or longer exposure use breathing apparatus that is independent of circulating air.
- Recommended filter device for short term use: Combination filter A-P2
- Protection of hands: Solvent resistant gloves
- Material of gloves

Butylrubber, BR, recommended thickness of the material: ≥ 0.7 mm, penetration time: ≥ 480 min. Fluorocarbon rubber (Viton), recommended thickness of the material: ≥ 0.7 mm, penetration time: ≥ 480 min. 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

Change gloves if notice sign of disenchantment.

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

- Eye protection: Tightly sealed safety glasses.
- Body protection:

Standard proctective clothing. Chemical resistant safety-shoes or boots. If skin contact is possible, wear inpenetrable protective clothing against this solvent.

SECTION 9: Physical and chemical properties

- -9.1 Information on basic physical and chemical properties
- General Information

Form:FluidColour:Colourless-Smell:Alcohol-like-Odour threshold:Not determinedpH-value:Not determinedChange in condition Melting point/Melting range: Boiling point/Boiling range:Not determined-Flash point:~13 °C-Inflammability (solid, gaseous)Not applicableIgnition temperature:425 °C Data for ethanolDecomposition temperature:Not determinedSelf-inflammability:Product is not selfignitingDanger of explosion:Product is not explosive. However, formation of explosive air/steam mixtures is possible.	-Appearance:	
- Smell: Alcohol-like - Odour threshold: Not determined. - pH-value: Not determined. - Change in condition Not determined Melting point/Melting range: Not determined Boiling point/Boiling range: > 78 °C - Flash point: ~13 °C - Inflammability (solid, gaseous) Not applicable. - Ignition temperature: 425 °C Data for ethanol. - - Decomposition temperature: Not determined. - Self-inflammability: Product is not selfigniting. - Danger of explosion: Product is not explosive. However, formation of explosive air/steam	Form:	Fluid
- Odour threshold:Not determined pH-value:Not determined Change in condition Melting point/Melting range: Boiling point/Boiling range:Not determined ≥ 78 °C- Flash point:~13 °C- Inflammability (solid, gaseous)Not applicable Inflammability (solid, gaseous)Not applicable Ignition temperature:425 °C Data for ethanol Decomposition temperature:Not determined Self-inflammability:Product is not selfigniting Danger of explosion:Product is not explosive. However, formation of explosive air/steam	Colour:	Colourless
-pH-value: Not determined. -Change in condition Melting point/Melting range: Not determined ≥ 78 °C -Flash point: ~13 °C -Inflammability (solid, gaseous) Not applicable. -Ignition temperature: 425 °C Data for ethanol. -Decomposition temperature: Not determined. -Self-inflammability: Product is not selfigniting. - Danger of explosion: Product is not explosive. However, formation of explosive air/steam	- Smell:	Alcohol-like
- Change in condition Melting point/Melting range: Boiling point/Boiling range: Not determined ≥ 78 °C - Flash point: ~13 °C - Inflammability (solid, gaseous) Not applicable. - Ignition temperature: 425 °C Data for ethanol. - Decomposition temperature: Not determined. - Self-inflammability: Product is not selfigniting. - Danger of explosion: Product is not explosive. However, formation of explosive air/steam	- Odour threshold:	Not determined.
Melting point/Melting range: Boiling point/Boiling range:Not determined ≥ 78 °C- Flash point: - Inflammability (solid, gaseous)~13 °C- Inflammability (solid, gaseous)Not applicable Ignition temperature: Data for ethanol.425 °C Data for ethanol Decomposition temperature: Not determined.Not determined Self-inflammability: - Danger of explosion:Product is not selfigniting.	-pH-value:	Not determined.
- Inflammability (solid, gaseous) Not applicable. - Ignition temperature: 425 °C Data for ethanol. - Decomposition temperature: Not determined. - Self-inflammability: Product is not selfigniting. - Danger of explosion: Product is not explosive. However, formation of explosive air/steam	Melting point/Melting range:	
- Ignition temperature:425 °C Data for ethanol Decomposition temperature:Not determined Self-inflammability:Product is not selfigniting Danger of explosion:Product is not explosive. However, formation of explosive air/steam	- Flash point:	~13 °C
Data for ethanol Decomposition temperature:Not determined Self-inflammability:Product is not selfigniting Danger of explosion:Product is not explosive. However, formation of explosive air/steam	- Inflammability (solid, gaseous)	Not applicable.
- Decomposition temperature:Not determined Self-inflammability:Product is not selfigniting Danger of explosion:Product is not explosive. However, formation of explosive air/steam	- Ignition temperature:	
-Danger of explosion: Product is not explosive. However, formation of explosive air/steam	- Decomposition temperature:	
	- Self-inflammability:	Product is not selfigniting.
mixiures is possible.	- Danger of explosion:	Product is not explosive. However, formation of explosive air/steam mixtures is possible.

Printing date 03.03.2015

Version number 102

Revision: 10.02.2015

(Contd of page 4)

Trade name LPZ/II

	(Contu.	or page
- Critical values for explosion:		
Lower:	2 Vol %	
Upper:	15.0 Vol %	
	(Higher and lower level for individual components)	
- Vapour pressure:	Not determined.	
- Density at 20 °C	$0.79 \ g/cm^3$	
- Relative density	Not determined.	
- Vapour density	Not determined.	
- Evaporation rate	Not determined.	
- Solubility in / Miscibility with		
Water:	Partly miscible	
- Partition coefficient (n-octanol/	water): Not determined.	
- Viscosity:		
dynamic:	Not determined.	
kinematic:	Not determined.	
- 9.2 Other information	No further relevant information available.	

SECTION 10: Stability and reactivity

- 10.1 Reactivity
- 10.2 Chemical stability
- Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications. To avoid: warmth, flames, sparks
- 10.3 Possibility of hazardous reactions No dangerous reactions known
- 10.4 Conditions to avoid No further relevant information available.
- 10.5 Incompatible materials:
- strong oxidizing agents
- Aluminium, zinc and other light metals.

- 10.6 Hazardous decomposition products: Formation of carbon monoxide and carbon dioxide in case of fire.

SECTION 11: Toxicological information

- -11.1 Information on toxicological effects
- Acute toxicity:
- Primary irritant effect:
- on the skin: No irritant effect.
- on the eye: No irritant effect.
- Sensitisation: No sensitizing effect known.
- Subacute to chronic toxicity: Can lead to liverdammage
- CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)
- no CMR effects available in according to present state of knowledge

SECTION 12: Ecological information

-12.1 Toxicity

- Aquatic toxicity: No further relevant information available.

Printing date 03.03.2015

Version number 102

Revision: 10.02.2015

Trade name LPZ/II

(Contd. of page 5)

- 12.2 Persistence and degradability No further relevant information available.
- 12.3 Bioaccumulative potential No further relevant information available.
- 12.4 Mobility in soil No further relevant information available.
- Additional ecological information:
- General notes: Water hazard class 1 (Self-assessment): slightly hazardous for water.
- 12.5 Results of PBT and vPvB assessment
- PBT: Not applicable.
- vPvB: Not applicable.

- 12.6 Other adverse effects No further relevant information available.

SECTION 13: Disposal considerations

-13.1 Waste treatment methods

The following advice is related to new material and not to any processed products. In case of a mixture with other products other disposal methods may become necessary. If in doubt seek advice from product supplier or from local authorities.

- Recommendation

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

If possible, send to be recycled, otherwise burn or deposit in a certified facility.

- Waste disposal key number:

Since 01/01/99 the waste code numbers have not only been product-related but are also essentially applicationrelated. The valid waste code number of the application can be obtained from the European waste catalogue.

- Uncleaned packagings: Disposal must be made according to official regulations.

- Recommendation:

Rented packaging: After optimal emptying, close immediately and return to the supplier without cleaning. Care should be taken that no other materials get into the packaging.

Other containers: After complete emptying and cleaning, send to be reconditioned or recycled.

Caution: Leftovers in the containers may cause the risk of explosion.

Uncleaned containers should not be perforated, cut or welded.

- Recommended cleaning agent: Water, if necessary with cleaning agent.

- 14.1 UN-Number	
- ADR, IMDG, IATA	UN1170
- 14.2 UN proper shipping name	
ADR	1170 ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)
IMDG	ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)
- IATA	ETHANOL SOLUTION
14.3 Transport hazard class(es)	
ADR	
Class	3 (F1) Flammable liquids.
Label	3
IMDG, IATA	
- Class	3 Flammable liquids.
- Label	3

Printing date 03.03.2015

Version number 102

Revision: 10.02.2015

Trade name LPZ/II

	(Contd. of page 6
- 14.4 Packing group	
- ADR, IMDG, IATA	II
- 14.5 Environmental hazards:	Not applicable.
- Marine pollutant:	No
- 14.6 Special precautions for user	Warning: Flammable liquids.
- Kemler Number:	33
- EMS Number:	F- E , S - D
- 14.7 Transport in bulk according to Anne	ex II of
MARPOL73/78 and the IBC Code	Not applicable.
- Transport/Additional information:	
-ADR	
- Limited quantities (LQ)	1L
- Excepted quantities (EQ)	Code: E2
	Maximum net quantity per inner packaging: 30 ml
	Maximum net quantity per outer packaging: 500 ml
-IMDG	
- Limited quantities (LQ)	1L
- Excepted quantities (EQ)	Code: E2
	Maximum net quantity per inner packaging: 30 ml
	Maximum net quantity per outer packaging: 500 ml
- UN "Model Regulation":	UN1170, ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION), 3, 11

SECTION 15: Regulatory information

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

- National regulations

- Information about limitation of use: Employment restrictions concerning young persons must be observed.

- 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- Relevant phrases

Complete wording of hazard statements and risk phrases (H- and R-phrases) mentioned in section 3. These phrases refer to the constituents. The labelling for this product is stated in section 2. H225 Highly flammable liquid and vapour.

H304 May be fatal if swallowed and enters airways.

H319 Causes serious eye irritation.

R11 Highly flammable.

R36 Irritating to eyes.

R65 Harmful: may cause lung damage if swallowed.

- Department issuing data specification sheet: see item 1: Informing department

- Abbreviations and acronyms:

LEV. Local Exhaust Ventilation

Printing date 03.03.2015

Version number 102

Revision: 10.02.2015

Trade name LPZ/II

(Contd. of page 7)

GB -

RPE: Respiratory Protective Equipment RCR: Risk Characterisation Ratio (RCR= PEC/PNEC) 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 CLP: Classification, Labelling and Packaging (Regulation (EC) No. 1272/2008) EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances CAS: Chemical Abstracts Service (division of the American Chemical Society)

Flam. Liq. 2: Flammable liquids, Hazard Category 2

Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2

Asp. Tox. 1: Aspiration hazard, Hazard Category 1

- * Data compared to the previous version altered.