SAFETY DATA SHEET
LORD 410

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

1.1. Product identifier

Product name LORD 410

Product number 3003687

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

Identified uses For industrial and professional use only. Two component acrylic adhesive. Resin.

1.3. Details of the supplier of the safety data sheet

Supplier

LORD Germany GmbH
Ottostrasse 28
D-41836 Hückelhoven
Germany
TEL : +49 (0) 2433-5257-0
FAX: + 49 (0) 2433-5257-18
Questions concerning the content of the SDS: EuropeMSDS@lord.com
General requests: info.europe@lord.com

Manufacturer

LORD Corporation
111 Lord Drive
CARY, NC 27511
U.S.A.

Information Tel.: +1 814 868 0924

1.4. Emergency telephone number

Emergency telephone NON-TRANSPORTATION EMERGENCY TELEPHONE NO. (USA): 001 814 763 2345

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification

Physical hazards Flam. Liq. 2 - H225

Health hazards Skin Corr. 1A - H314 Eye Dam. 1 - H318 Skin Sens. 1 - H317 STOT SE 3 - H335

Environmental hazards Not Classified

Classification (67/548/EEC or 1999/45/EC) Xi;R36/37/38. R43. F;R11.

Physicochemical Solvents contained in the product evaporate during processing and their vapours can form explosive/highly inflammable air/vapour mixtures.

2.2. Label elements

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Pictogram

Signal word	Danger
Hazard statements	H225 Highly flammable liquid and vapour. H314 Causes severe skin burns and eye damage. H317 May cause an allergic skin reaction. H335 May cause respiratory irritation.
Precautionary statements	P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P243 Take precautionary measures against static discharge. P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P333+P313 If skin irritation or rash occurs: Get medical advice/attention. P403+P235 Store in a well-ventilated place. Keep cool. P280 Wear protective clothing, gloves, eye and face protection.
Contains	METHYL METHACRYLATE, METHACRYLIC ACID

2.3. Other hazards

Due to missing data, not all ingredients could be reviewed on PBT and vPvB criteria.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

METHYL METHACRYLATE **< 35%**

CAS number: 80-62-6 EC number: 201-297-1

Classification	Classification (67/548/EEC or 1999/45/EC)
Flam. Liq. 2 - H225 Skin Irrit. 2 - H315 Skin Sens. 1 - H317 STOT SE 3 - H335 STOT SE 3 - H335	F;R11 R43 Xi;R37/38

Cyclohexyl methacrylate **< 5%**

CAS number: 101-43-9 EC number: 202-943-5

Classification	Classification (67/548/EEC or 1999/45/EC)
Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 STOT SE 3 - H335 STOT SE 3 - H335	Xi;R36/37/38.

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2-Propenoic acid, 2-methyl-, 2-hydroxyethyl ester, phosphate	< 5%
CAS number: 52628-03-2	EC number: 258-053-2

Classification	Classification (67/548/EEC or 1999/45/EC)
Skin Corr. 1A - H314 Eye Dam. 1 - H318	C;R34.

METHACRYLIC ACID	< 5%
CAS number: 79-41-4	EC number: 201-204-4

Classification	Classification (67/548/EEC or 1999/45/EC)
Acute Tox. 4 - H302 Acute Tox. 3 - H311 Acute Tox. 4 - H332 Skin Corr. 1A - H314 STOT SE 3 - H335 STOT SE 3 - H335 Eye Dam. 1 - H318	C;R35 Xn;R21/22

1,1'-(p-Tolylimino)dipropan-2-ol	<1%
CAS number: 38668-48-3	EC number: 254-075-1

Classification	Classification (67/548/EEC or 1999/45/EC)
Acute Tox. 2 - H300 Eye Dam. 1 - H318 Aquatic Chronic 3 - H412	T;R25. Xi;R41. R52/53.

N,N-DIMETHYLANILINE	<1%
CAS number: 121-69-7	EC number: 204-493-5

Classification	Classification (67/548/EEC or 1999/45/EC)
Acute Tox. 3 - H301 Acute Tox. 3 - H311 Acute Tox. 3 - H331 Carc. 2 - H351 Aquatic Chronic 2 - H411	Carc. Cat. 3;R40 T;R23/24/25 N;R51/53

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information Move affected person to fresh air at once. Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Get medical attention. Keep affected person away from heat, sparks and flames.

Inhalation Move affected person to fresh air at once. For breathing difficulties, oxygen may be necessary. If breathing stops, provide artificial respiration. Get medical attention if any discomfort continues.

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Ingestion Do not induce vomiting. Never give anything by mouth to an unconscious person. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Rinse mouth thoroughly with water. Get medical attention if any discomfort continues.

Skin contact Remove contaminated clothing and rinse skin thoroughly with water. Wash skin thoroughly with soap and water. Get medical attention promptly if symptoms occur after washing.

Eye contact Remove any contact lenses and open eyelids wide apart. Rinse immediately with plenty of water. Get medical attention immediately. Continue to rinse for at least 15 minutes.

4.2. Most important symptoms and effects, both acute and delayed

General information Effects may be delayed. Keep affected person under observation.

Inhalation Vapours may cause headache, fatigue, dizziness and nausea. Irritation of nose, throat and airway.

Ingestion May cause discomfort if swallowed. May cause stomach pain or vomiting.

Skin contact Causes burns. Allergic rash.

Eye contact Risk of serious damage to eyes.

4.3. Indication of any immediate medical attention and special treatment needed

Notes for the doctor Effects may be delayed. Keep affected person under observation.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media Extinguish with the following media: Foam. Dry chemicals, sand, dolomite etc. Carbon dioxide (CO_2). Water spray, fog or mist.

5.2. Special hazards arising from the substance or mixture

Specific hazards Fire or high temperatures create: Carbon monoxide (CO). Carbon dioxide (CO_2). Nitrous gases (NO_x). Refer to section 10 of this safety data sheet for more information on hazardous decomposition products. The product is highly flammable. Vapours are heavier than air and may spread near ground and travel a considerable distance to a source of ignition and flash back. Closed containers may rupture when exposed to extreme heat.

5.3. Advice for firefighters

Protective actions during firefighting Move containers from fire area if it can be done without risk. Containers close to fire should be removed or cooled with water. Cool containers exposed to flames with water until well after the fire is out. Control run-off water by containing and keeping it out of sewers and watercourses.

Special protective equipment for firefighters Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions Wear protective clothing as described in Section 8 of this safety data sheet.

6.2. Environmental precautions

Environmental precautions Do not discharge into drains or watercourses or onto the ground.

6.3. Methods and material for containment and cleaning up

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Methods for cleaning up Eliminate all sources of ignition. No smoking, sparks, flames or other sources of ignition near spillage. Provide adequate ventilation. Use non-sparking tools. Avoid contact with skin or inhalation of spillage, dust or vapour. Absorb spillage with non-combustible, absorbent material. Collect and place in suitable waste disposal containers and seal securely. For waste disposal, see Section 13.

6.4. Reference to other sections

Reference to other sections For personal protection, see Section 8. For waste disposal, see Section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Usage precautions Static electricity and formation of sparks must be prevented. Keep away from heat, sparks and open flame. Use explosion proof electric equipment. Avoid spilling. Avoid contact with skin and eyes. Provide adequate ventilation. Avoid inhalation of vapours. Use approved respirator if air contamination is above an acceptable level. Persons susceptible to allergic reactions should not handle this product.

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions Store in tightly-closed, original container in a dry, cool and well-ventilated place.

Storage class Flammable liquid storage. LGK 3 (TRGS 510)

7.3. Specific end use(s)

Specific end use(s) The identified uses for this product are detailed in Section 1.2.

SECTION 8: Exposure Controls/personal protection

8.1. Control parameters

Occupational exposure limits

METHYL METHACRYLATE

Long-term exposure limit (8-hour TWA): WEL 50 ppm 208 mg/m³
Short-term exposure limit (15-minute): WEL 100 ppm 416 mg/m³

METHACRYLIC ACID

Long-term exposure limit (8-hour TWA): WEL 20 ppm 72 mg/m³
Short-term exposure limit (15-minute): WEL 40 ppm 143 mg/m³

N,N-DIMETHYLANILINE

Long-term exposure limit (8-hour TWA): WEL 5 ppm(Sk) 25 mg/m3(Sk)
Short-term exposure limit (15-minute): WEL 10 ppm(Sk) 50 mg/m3(Sk)

WEL = Workplace Exposure Limit

Ingredient comments WEL = Workplace Exposure Limits

8.2. Exposure controls

Protective equipment

Appropriate engineering controls Use explosion-proof general and local exhaust ventilation.

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Eye/face protection	Use approved safety glasses with side shields. Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible. The following protection should be worn: Chemical splash goggles or face shield.
Hand protection	Chemical-resistant, impervious gloves complying with an approved standard should be worn if a risk assessment indicates skin contact is possible. Wear protective gloves made of the following material: Neoprene. Nitrile rubber. Butyl rubber. The most suitable glove should be chosen in consultation with the glove supplier/manufacturer, who can provide information about the breakthrough time of the glove material.
Other skin and body protection	Wear appropriate clothing to prevent any possibility of liquid contact and repeated or prolonged vapour contact.
Hygiene measures	Do not smoke in work area. Wash hands at the end of each work shift and before eating, smoking and using the toilet. Promptly remove any clothing that becomes contaminated. When using do not eat, drink or smoke. Contaminated clothing should be placed in a closed container for disposal or decontamination. Warn cleaning personnel of any hazardous properties of the product.
Respiratory protection	No specific recommendations. Respiratory protection must be used if the airborne contamination exceeds the recommended occupational exposure limit. Wear a respirator fitted with the following cartridge: Organic vapour filter.

SECTION 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Appearance	Paste.
Colour	White/off-white.
Odour	Sweetish.
Odour threshold	Not available.
pH	Not available.
Melting point	Not available.
Initial boiling point and range	Not available.
Flash point	15°C SCC (Setaflash closed cup).
Evaporation rate	Not available.
Flammability (solid, gas)	Not applicable.
Upper/lower flammability or explosive limits	Not available.
Vapour pressure	Not available.
Vapour density	Not available.
Relative density	1.10 - 1.16 @ 20°C
Solubility(ies)	Insoluble in water.
Partition coefficient	Not available.
Auto-ignition temperature	Not available.
Decomposition Temperature	Not available.
Viscosity	100,000-350,000 mPa s @ 25°C

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Explosive properties	Not available.
Oxidising properties	Not available.

9.2. Other information

Volatile organic compound	This product contains a maximum VOC content of < 1 %. The VOC-value given was calculated according to the guidelines specified in Directive 1999/13/EC.

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity	There are no known reactivity hazards associated with this product.

10.2. Chemical stability

Stability	Stable at normal ambient temperatures.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions	Hazardous polymerisation will not occur under normal conditions.

10.4. Conditions to avoid

Conditions to avoid	Avoid exposure to high temperatures or direct sunlight.

10.5. Incompatible materials

Materials to avoid	Strong oxidising agents. Amines. Strong acids. Alkalis - inorganic. Organic peroxides/hydroperoxides.

10.6. Hazardous decomposition products

Hazardous decomposition products	Thermal decomposition or combustion products may include the following substances: Oxides of the following substances: Carbon. Phosphorus. Organic or inorganic nitrogen compounds including traces of hydrogen cyanide.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity - oral

ATE oral (mg/kg)	2,376.0152951

Acute toxicity - dermal

ATE dermal (mg/kg)	19,606.93764681

Acute toxicity - inhalation

ATE inhalation (vapours mg/l)	1,222.49388753
ATE inhalation (dusts/mists mg/l)	69.91703179

General information	The present product is a chemical preparation within the meaning of the REACh Regulation 1907/2006/EC. To avoid testing the product in animal experiments the evaluation is made based on toxicological data and content by weight of the individual ingredients according to 1999/45/EC or analagous evaluations of comparable products.
Inhalation	Irritating to respiratory system.
Ingestion	No harmful effects expected from quantities likely to be ingested by accident.
Skin contact	May cause sensitisation by skin contact. Causes burns.

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Eye contact Risk of serious damage to eyes.

Acute and chronic health hazards Prolonged exposure to the preparation may cause serious health effects.

SECTION 12: Ecological Information

Ecotoxicity Do not empty into drains, soil or bodies of water. The product contains a substance which is harmful to aquatic organisms and which may cause long-term adverse effects in the aquatic environment.

12.1. Toxicity

Acute toxicity - fish No data available.

12.2. Persistence and degradability

Persistence and degradability No data available.

12.3. Bioaccumulative potential

Bioaccumulative potential No data available on bioaccumulation.

Partition coefficient Not available.

12.4. Mobility in soil

Mobility The product is insoluble in water.

12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment Due to missing data, not all ingredients could be reviewed on PBT and vPvB criteria.

12.6. Other adverse effects

Other adverse effects Not available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

General information When handling waste, the safety precautions applying to handling of the product should be considered. Do not dump into any sewers, on the ground, or into any body of water. Not be to be disposed of together with household waste. Any disposal practice must be in compliance with all local and national laws and regulations. Handle and dispose contaminated packages in the same way as the product itself. Fully cured product residues are generally not regarded as hazardous waste.

Disposal methods The product as supplied should be disposed of as hazardous waste according to European Directive 91/689/EEC. Empty containers must not be punctured or incinerated because of the risk of an explosion.

Waste class The waste code number applies to actual wastes depending on its origin and not to substances or mixtures as placed on the market. Only the practical application of the user enables the proper allocation. Allocation of the waste code number according to the European Waste Catalogue (Commission Decision 2000/532/EC and 2001/118/EC) should be carried out in agreement with the regional waste disposal company and/or the supervisory authority.

SECTION 14: Transport information

General This product may be shipped as part of 2 component acrylic adhesive kits under UN 3269 POLYESTER RESIN KIT.

14.1. UN number

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UN No. (ADR/RID)	1133
UN No. (IMDG)	1133
UN No. (ICAO)	1133

14.2. UN proper shipping name

Proper shipping name (ADR/RID)	ADHESIVES
Proper shipping name (IMDG)	ADHESIVES
Proper shipping name (ICAO)	ADHESIVES
Proper shipping name (ADN)	ADHESIVES

14.3. Transport hazard class(es)

ADR/RID class	3
ADR/RID subsidiary risk	
ADR/RID label	3
IMDG class	3
IMDG subsidiary risk	
ICAO class/division	3
ICAO subsidiary risk	

Transport labels

14.4. Packing group

ADR/RID packing group	II
IMDG packing group	II
ICAO packing group	II

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant

No.

14.6. Special precautions for user

EmS	F-E, S-D
Emergency Action Code	•3YE
Hazard Identification Number (ADR/RID)	33
Tunnel restriction code	(D/E)

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

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Transport in bulk according to Annex II of MARPOL 73/78 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 legislation	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 (JO L 396 du 30.12.2006). Dangerous Substances Directive 67/548/EEC. Dangerous Preparations Directive 1999/45/EC.
Water hazard classification	WGK 2 (VwVwS 17 May 1999 Annex 4)

15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

SECTION 16: Other information

Key literature references and sources for data	Dangerous Properties of Industrial Materials Report, N.Sax et.al. The Merck Index, 11. edition, 1989. Safety Data Sheets, Misc. manufacturers. GESTIS-database on hazardous substances (www.dguv.de/bgia/gestis-database).
Revision comments	NOTE: Lines within the margin indicate significant changes from the previous revision.
Issued by	EU Regulatory Compliance Specialist (Product Safety).
Revision date	28/05/2015
Revision	7
Supersedes date	31/07/2012
SDS number	10255
Risk phrases in full	R11 Highly flammable. R21/22 Harmful in contact with skin and if swallowed. R23/24/25 Toxic by inhalation, in contact with skin and if swallowed. R25 Toxic if swallowed. R34 Causes burns. R35 Causes severe burns. R36/37/38 Irritating to eyes, respiratory system and skin. R37 Irritating to respiratory system. R37/38 Irritating to respiratory system and skin. R40 Limited evidence of a carcinogenic effect. R41 Risk of serious damage to eyes. R43 May cause sensitisation by skin contact. R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

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Hazard statements in full

H225 Highly flammable liquid and vapour.
H300 Fatal if swallowed.
H301 Toxic if swallowed.
H302 Harmful if swallowed.
H311 Toxic 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.
H331 Toxic if inhaled.
H332 Harmful if inhaled.
H335 May cause respiratory irritation.
H351 Suspected of causing cancer.
H411 Toxic to aquatic life with long lasting effects.
H412 Harmful to aquatic life with long lasting effects.