Material Safety Data Sheet according to 91/155/EC - ISO 11014-1

Chemosil 211

MSDS-No. : 43639
V001.1
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1. Identification of the substance/preparation and of the company/undertaking

Trade name:
Chemosil 211

Intended use:
rubber-metal-bonding agent, solvent-containing

Company name:
Lord Germany GmbH
Ottostr. 28
41836 Hückelhoven
Phone: +49243352570
Germany

Emergency information:
The Henkel information service also provides an around-the-clock telephone service on phone no.++49-(0)211-797-3350 for exceptional cases.

2. Composition / information on ingredients

General chemical description:
Adhesive

Declaration of ingredients according to 91/155/EC:

Hazardous components CAS-No.	EINECS	content	Classification
Methyl isobutyl ketone 108-10-1	203-550-1	> 50 %	F - Highly flammable; R11 Xn - Harmful; R20 Xi - Irritant; R36/37 R66
Xylene - mixture of isomeres 1330-20-7	215-535-7	5 - 10 %	R10 Xn - Harmful; R20/21 Xi - Irritant; R38
Phenol 108-95-2	203-632-7	1 - 3 %	Mutagen category 3.; Xn - Harmful; R68 T - Toxic; R23/24/25 Xn - Harmful; R48/20/21/22 C - Corrosive; R34
zinc oxide 1314-13-2	215-222-5	1 - 3 %	N - Dangerous for the environment; R50, R53
Ethyl benzene 100-41-4	202-849-4	1 - 5 %	F - Highly flammable; R11 Xn - Harmful; R20

3. Hazards identification

The product is classified as hazardous within the meaning of the valid (EU) preparation guideline.
F - Highly flammable
Xn - Harmful
R11 Highly flammable.
R20/21 Harmful by inhalation and in contact with skin.
R36/37/38 Irritating to eyes, respiratory system and skin.
R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R66 Repeated exposure may cause skin dryness or cracking.
R68 Possible risk of irreversible effects.

4. First-aid measures

General information:
Symptoms of poisoning may occur even after several hours, continue medical observation for at least 48 hours after the accident.

Inhalation:
Fresh air, oxygen supply, warmth; seek specialist medical attention.

Skin contact:
Rinse with running water and soap. Apply replenishing cream. Change all contaminated clothing. If necessary, see a dermatologist.

Eye contact:
Wash with plenty of water immediately and continue for several minutes, holding eyelid open. Consult a doctor.

Ingestion:
Rinse mouth, drink 1-2 glasses of water, do not induce vomiting, consult a doctor.

5. Fire-fighting measures

Suitable extinguishing media:
carbon dioxide, foam, powder, water spray jet, fine water spray

Extinguishing media which must not be used for safety reasons:
Water jet (solvent-containing product).

Special protection equipment for firefighters:
Wear self-contained breathing apparatus.
Wear protective equipment.

Special hazards by the product itself:
Formation of toxic gases is possible during heating or in fires.

Hazardous combustion products:
carbon oxides

Additional information:
Do not breathe combustion gases.

6. Accidental release measures

General information:
Keep away from sources of ignition and naked flames.

Personal precautions:
Avoid contact with skin and eyes.
Wear protective equipment.
Ensure adequate ventilation.
Leave danger area.
Keep unprotected persons away.

Environmental precautions:

Do not allow to enter the ground / soil.
Do not allow to enter in surface / ground water.
Inform authorities in the event of product spillage to water courses or sewage systems.

Clean-up methods:

Remove with liquid-absorbing material (sand, peat, sawdust).

7. Handling and storage

Handling:

Ensure that workrooms are adequately ventilated.
No smoking.
Avoid naked flames, sparking and sources of ignition.
Avoid skin and eye contact.
Take measures to prevent the build-up of electrostatic charges.

Storage:

Ensure good ventilation/extraction.
Take precautionary measures against static discharges during storage and transport.
Keep only in the original container.

8. Exposure controls / personal protection

Components with specific control parameters for workplace:

Valid for

Germany

Basis

Germany - Occupational Exposure Limits

Ingredient	ppm	mg/m^3	Type	Category	Remarks
4-methylpentan-2-one; isobutyl methyl ketone 108-10-1	20	83	Occupational exposure limit value.	2	If in compliance with the MAK and BAT values, then there should be no risk to the fetus.
			Skin designation.		Can be absorbed through the skin.
	20	83	Time Weighted Average (TWA).		
	50	208	Short Term Exposure Limit (STEL):		
			Short Term Exposure Classification.		Category I: substances for which the localized effect has an assigned OEL or for substances with a sensitizing effect in respiratory passages.
					Listed.
					Listed.
xylene 1330-20-7	100	440	Occupational exposure limit value.	2	
			Skin designation.		Can be absorbed through the skin.
	50	221	Time Weighted Average (TWA).		
	100	442	Short Term Exposure Limit (STEL):		
			Skin designation.		Can be absorbed through the skin.
			Short Term Exposure Classification.		Category II: substances with a resorptive effect.
ethylbenzene 100-41-4	100	440	Occupational exposure limit value.	2	
			Skin designation.		Can be absorbed through the skin.
	100	442	Time Weighted Average (TWA).		
	200	884	Short Term Exposure Limit (STEL):		
			Skin designation.		Can be absorbed through the skin.
			Short Term Exposure Classification.		Category I: substances for which the localized effect has an assigned OEL or for substances with a sensitizing effect in respiratory passages.
phenol 108-95-2	2	7,8	Occupational exposure limit value.		
			Skin designation.		Can be absorbed through the skin.
	2	7,8	Time Weighted Average (TWA).		
			Skin designation.		Can be absorbed through the skin.
					Listed.
					Listed.
zinc oxide 1314-13-2			TRGS 901 - Explanations and basis for exposure limits in the workplace air - Number:		
			TRGS 901 - Explanations and basis for exposure limits in the workplace air - Number:		

Engineering controls:
No further information, see section 7.

Respiratory protection:
In the event of exposure over short periods of time or to small amounts use repiration filter device. Use a prespiratory protection apparatus which is independent of circulating air in the case of more protracted exposure.

Hand protection:
Chemical-resistant protective gloves (EN 374). Suitable materials for short-term contact or splashes (recommended: at least protection index 2, corresponding to > 30 minutes permeation time as per EN 374): Isobutylene-isoprene rubber (IIR; >= 0.7 mm thickness) Suitable materials for longer, direct contact (recommended: protection index 6, corresponding to > 480 minutes permeation time as per EN 374): Isobutylene-isoprene rubber (IIR; >= 0.7 mm thickness) This information is based on literature references and on information provided by glove manufacturers, or is derived by analogy with similar substances. Please note that in practice the working life of chemical-resistant protective gloves may be considerably shorter than the permeation time determined in accordance with EN 374 as a result of the many influencing factors (e.g. temperature). If signs of wear and tear are noticed then the gloves should be replaced.

Eye protection:
Wear tightly fitting goggles.

General protection and hygiene measures:
Keep away from food, beverages and animal feed.
Wash hands before work breaks and after finishing work.
Avoid contact with skin and eyes. Remove soiled or soaked clothing immediately. Wash off any contamination that gets onto the skin with plenty of water and soap, skin care.
Do not eat, drink or smoke while working.

9. Physical and chemical properties

Appearance	solution, suspension liquid grey
Odor:	of solvent
Boiling point (1.013,200 hPa)	116 °C (240,8 °F)
Flash point	17 °C (62,6 °F)
Vapor pressure (20 °C (68 °F))	8 mbar
Density (20 °C (68 °F))	0,92 - 0,96 g/cm3
Viscosity (dynamic) (Brookfield; Instrument: LVT; 25 °C (77 °F); speed of rotation: 30 min-1; Spindle No.: 2)	90 - 170 mPas
Solubility (qualitative) (20 °C (68 °F); Solvent: water)	practically insoluble
Explosion limit	
lower [vol%]	1,7 %(V)
upper [vol%]	9,0 %(V)

10. Stability and reactivity

Conditions to avoid:
None known if used to the intended purpose.

Materials to avoid:
None if used for intended purpose.

Hazardous decomposition products:
In the event of a fire, hydrochloric acid gas may be released.
No decomposition if used according to specifications.

11. Toxicological information

General toxicological information:

The present product is a chemical preparation within the meaning of the chemicals act. To avoid testing the product in animal experi ments the evaluation is made on the basis of the toxicological data and content by weight of the individual ingredients acc ording to 88/37/EEC or analagous evaluations of comparable products.
Possible risks of irreversible effects

Inhalative toxicity:

Harmful by inhalation.
Irritating to respiratory system

Dermal toxicity:

Harmful in contact with skin.

Skin irritation:

Primary skin irritation: irritating
Prolonged or repeated skin contact can lead to skin degreasing and hence to skin irritation.

Eye irritation:

Primary eye irritation: irritating

12. Ecological information

Persistence and degradability

Ultimate biodegradation:	The total of the organic components contained in the product achieve values below 60% BOD/COD or CO2 liberation, or below 70% DOC reduction in tests for ease of degradability. Threshold values for 'readily degradable' (e.g. to OECD method 301) are not reached.

General ecological information:

Harmful to aquatic organisms
May cause long-term adverse effects in the aquatic environment

Other remarks:

Do not empty into drains, soil or bodies of water.

13. Disposal considerations

Product

Disposal methods:

The valid EEC waste code numbers are not product-related but are largely source-related. The manufacturer is therefore unable to specify EEC waste codes for the articles or products used in the various sectors. These can be requested from the manufacturer.

14. Transport information

Road transport ADR:

Class:	3
Packaging group:	II
Classification code:	F1
Hazard ident. number:	33
UN no.:	1133
Label:	3
Technical name:	ADHESIVES
Additional information:	Special provision 640D

Railroad transport RID:

Class:	3
Packaging group:	II
Classification code:	F1
Hazard ident. number:	33
UN no.:	1133
Label:	3
Technical name:	ADHESIVES
Additional information:	Special provision 640D

Inland water transport ADN:

Class:	3
Packaging group:	II
Classification code:	F1
Hazard ident. number:	33
UN no.:	1133
Label:	3
Technical name:	ADHESIVES
Additional information:	Special provision 640D

Marine transport IMDG:

Class:	3
Packaging group:	II
UN no.:	1133
Label:	3
EmS:	F-E ,S-D
Seawater pollutant:	-
Proper shipping name:	ADHESIVES

Air transport IATA:

Class:	3
Packaging group:	II
Packaging instructions (passenger)	305
Packaging instructions (cargo)	307
UN no.:	1133
Label:	3
Proper shipping name:	Adhesives

15. Regulations - classification and identification

Indication of danger:

F - Highly flammable Xn - Harmful

Contains

Phenol,
Methyl isobutyl ketone,
Xylene - mixture of isomeres

Risk phrases:

R11 Highly flammable.
R20/21 Harmful by inhalation and in contact with skin.
R36/37/38 Irritating to eyes, respiratory system and skin.
R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R66 Repeated exposure may cause skin dryness or cracking.
R68 Possible risk of irreversible effects.

Safety phrases:

S7/9 Keep container tightly closed and in a well-ventilated place.
S16 Keep away from sources of ignition - No smoking.
S33 Take precautionary measures against static discharges.
S36/37 Wear suitable protective clothing and gloves.
S61 Avoid release to the environment. Refer to special instructions/Safety data sheets.

National regulations/information (Germany)

WGK:	2, water-endangering product. (German VwVwS of May 17, 1999) Classification in conformity with the calculation method
BG regulations, rules, infos:	BG data sheet: BGI 621 Solvents
Storage class VCI:	3A

16. Other information

Full text of the R-phrases indicated by codes in this safety data sheet. The labeling of the product is indicated in Section 15.

R10 Flammable.
R11 Highly flammable.
R20 Harmful by inhalation.
R20/21 Harmful by inhalation and in contact with skin.
R23/24/25 Toxic by inhalation, in contact with skin and if swallowed.
R34 Causes burns.
R36/37 Irritating to eyes and respiratory system.
R38 Irritating to skin.
R48/20/21/22 Harmful: danger of serious damage to health by prolonged exposure through inhalation, in contact with skin and if swallowed.
R50 Very toxic to aquatic organisms.
R53 May cause long-term adverse effects in the aquatic environment.
R66 Repeated exposure may cause skin dryness or cracking.
R68 Possible risk of irreversible effects.

Further information:

This information is based on our current level of knowledge and relates to the product in the state in which it is delivered. It is intended to describe our products from the point of view of safety requirements and is not intended to guarantee any particular properties.