Safety Data Sheet
according to HPR, Schedule 1

Printing date 02/05/2023 Version-No. 13 Reviewed on 02/05/2023

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1 Identification

· **1.1. Product identifier**

· **Trade name / Article No: KLEIBERIT *308.0***

· **Application of the substance / the mixture** Adhesives

· **1.3. Details of the supplier of the safety data sheet**
· **Manufacturer/Supplier:**

KLEBCHEMIE
M.G.Becker GmbH & Co. KG
Max Becker Str. 4
D - 76356 Weingarten / Baden
Germany / Allemagne

KLEIBERIT Adhesives Canada, Inc.
45 Sheppard Avenue East, Suite 900
Toronto, Ontario M2N 5W9
Canada

· **Information department:**
e-mail: hse@kleiberit.com

Phone 1-704-843-3339
FAX 1-704-843-4930

· **1.4. Emergency telephone number:**
+1 800 579 7421 Canada (English, French)
+1 215 207 0061 Americas regional number (English, Spanish, Portuguese)

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2 Hazard identification

· **2.1. Classification of the substance or mixture**
· **Classification according to Regulation (EC) No 1272/2008 - GHS/CLP**

Flam. Liq. 3 H226 Flammable liquid and vapour.
Skin Irrit. 2 H315 Causes skin irritation.
Eye Dam. 1 H318 Causes serious eye damage.
Repr. 1B H360 May damage fertility or the unborn child.

· **2.2. Label elements**
· **Hazard pictograms**

GHS02 GHS05 GHS08

· **Signal word** Danger

· **Hazard-determining components of labeling:**
1-ethylpyrrolidin-2-one
2-dimethylaminoethanol
· **Hazard statements**
H226 Flammable liquid and vapour.
H315 Causes skin irritation.
H318 Causes serious eye damage.
H360 May damage fertility or the unborn child.
· **Precautionary statements**

P280	Wear protective gloves / eye protection.
P302+P352	If on skin: Wash with plenty of soap and water.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313	If eye irritation persists: Get medical advice/attention.
P403+P235	Store in a well-ventilated place. Keep cool.

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· **NFPA-ratings (scale 0 - 4) - USA:**

Health = 1
Fire = 2
Reactivity = 0

· **HMIS-ratings (scale 0 - 4) - USA:**

Health = 1
Fire = 3
Reactivity = 0

· **WHMIS Classes, Divisions and Subdivisions - Canada**
· **Class B - Flammable and Combustible Materials** Division 2 - Flammable Liquid
· **Class D - Poisonous and Infectious Materials**
Division 2 - Materials Causing Other Toxic Effects
Subdivision B - Toxic Materials
· **CARCINOGENICITY** NTP: No IARC: No OSHA: No
· **2.3. Other hazards**
· **Results of PBT and vPvB assessment**
· **PBT:** Not applicable.
· **vPvB:** Not applicable.

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3 Composition/Information on ingredients

· **3.2 Mixtures**
· **Description:** waterbased polymer dispersion

· **Dangerous components:**

· Registry-No's	Identification / Classification GHS-CLP	%
CAS: 108-87-2 RTECS: GV 6125000	methylcyclohexane Flam. Liq. 2, H225; Asp. Tox. 1, H304; Skin Irrit. 2, H315; STOT SE 3, H336	5-10% w/w *
CAS: 2687-91-4	1-ethylpyrrolidin-2-one Repr. 1B, H360; Eye Dam. 1, H318; Flam. Liq. 4, H227	≤3% w/w
CAS: 108-01-0 RTECS: KK 6125000	2-dimethylaminoethanol Flam. Liq. 3, H226; Skin Corr. 1B, H314; Eye Dam. 1, H318; Acute Tox. 4, H302; Acute Tox. 4, H332; STOT SE 3, H335	<2% w/w

* Actual concentration ranges are withheld as a trade secret.

· **Additional information:** For the wording of the listed hazard phrases refer to section 16.

4 First aid measures

· **4.1. Description of first aid measures**
· **After inhalation:**
Supply fresh air; consult doctor in case of complaints.
Supply fresh air.
· **After skin contact:**
Treat affected skin with cotton wool or cellulose. Then wash and rinse thoroughly with water and a mild cleaning agent.
Rinse with warm water.
· **After eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.
· **After swallowing:** Seek immediate medical advice.
· **Information for doctor:**
· **4.2. Most important symptoms and effects, both acute and delayed**
No further relevant information available.

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· **4.3. Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

5 Firefighting measures

· **Flammability** Flammable Yes: **X** No: **-**
· **If yes, under which conditions ?** Development of solvent vapors at higher temperatures near flash point.
· **5.1. Extinguishing media**
· **Suitable extinguishing agents:**
CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
· **For safety reasons unsuitable extinguishing agents:**
· **Flash point :** See Pos. 9
· **Flammable Limits (% by volume) lower:** 1.1 **upper:** 8.4
· **Autoignition Temperature :** See Pos. 9
· **Explosion Data - Sensitive to Impact:** Product does not present an explosion hazard.
· **5.2. Special hazards arising from the substance or mixture** No further relevant information available.
· **5.3. Advice for firefighters**
· **Protective equipment:**
Do not inhale explosion gases or combustion gases.
Wear self-contained respiratory protective device.

6 Accidental release measures

· **6.1. Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.
Particular danger of slipping on leaked/spilled product.
· **6.2. Environmental precautions:**
Inform respective authorities in case of seepage into water course or sewage system.
Dilute with plenty of water.
· **6.3. Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Use neutralizing agent.
Dispose contaminated material as waste according to item 13.
Ensure adequate ventilation.
· **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 disposal information.

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7 Handling and storage

· **Handling:**
· **7.1. Precautions for safe handling**
Appropriate regular employee training.
Enclosure or extractor facilities are required.
Ensure good ventilation. This can be achieved by using a local exhaustion or general exhaust system. If these measures are insufficient to keep the solvent vapour concentration below the workplace limit, wear an adequate respiratory protective device.
Prevent formation of aerosols.
Not less than 5 -15 air exchanges per hour
Spraying: in vented cabin with laminar air flow
Wear protective gloves/protective clothing/eye protection/face protection.
Clean the pipe before decoupling
Keep good industrial hygiene.
Open and handle receptacle with care.
Waste air is to be released into the atmosphere only via suitable separators.
Wear suitable respiratory protective device when decanting larger quantities without extractor facilities.
Avoid splashes or spray in enclosed areas.

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regular check up, maintenance and cleaning of equipment and machines
Close the container immediately after usage.
Avoid contact with the skin.
Absorb spilled amount immediately.
Avoid taking samples by immersion

· **Information about protection against explosions and fires:**
Traces of flammable substances may collect in the steam chamber of enclosed systems. Keep ignition sources clear.
Keep respiratory protective device available.

· **7.2. Conditions for safe storage, including any incompatibilities**
· **Storage:**
· **Requirements to be met by storerooms and receptacles:** Keep container tightly closed.
· **Information about storage in one common storage facility:** Observe the national regulations.
· **Further information about storage conditions:** None.
· **7.3. Specific end use(s)** No further relevant information available.

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8 Exposure controls/ Personal protection

· **Additional information about design of technical systems:** No further data; see item 7.

· **8.1. Control parameters**

· **Components with limit values that require monitoring at the workplace:**

· **CAS No. Designation of material % Type Value Unit**

108-87-2 methylcyclohexane
EL (USA) Long-term value: 400 ppm
EV (USA) Long-term value: 1,600 mg/m³, 400 ppm
PEL (USA) Long-term value: 2000 mg/m³, 500 ppm
REL (USA) Long-term value: 1600 mg/m³, 400 ppm
TLV (USA) Long-term value: 1610 mg/m³, 400 ppm

2687-91-4 1-ethylpyrrolidin-2-one
TLV (USA) NIC-BEI

108-01-0 2-dimethylaminoethanol
EV (USA) Short-term value: 22 mg/m³, 6 ppm
Long-term value: 11 mg/m³, 3 ppm

· **8.2. Exposure controls**
limit the exposure to:
8 hours

· **Personal protective equipment:**
· **General protective and hygienic measures:**
The usual precautionary measures for handling chemicals should be followed.
· **Breathing equipment:**
Wear NIOSH-approved, air-purifying respirator in case of insufficient ventilation.
Not necessary if room is well-ventilated.
· **Protection of hands:** Protective gloves
· **Material of gloves**
A Nitrile rubber - NBR: AlphaTec® (Lamination strength not applicable)
B Polyethylennylon: Barrier™ (0,062 mm)
· **Penetration time of glove material**
A: 240 - 480 min
B: ≥ 480 min
· **Eye protection:** Tightly sealed goggles

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· **Body protection:** Protective work clothing

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9 Physical and chemical properties

· **9.1. Information on basic physical and chemical properties**
· **General Information**
· **Appearance:**

Form:	Fluid
Color:	Beige
· **Odor:**	Characteristic
· **Odor threshold:**	Not determined.
· **pH-value at 20 °C (68 °F):**	ca. 8.0
· **Change in condition**	
Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	100 °C (212 °F)
· **Flash Point:**	29 °C (84.2 °F)
· **Flammability (solid, gaseous):**	Not applicable.
· **Ignition Temperature:**	260 °C (500 °F)
· **Decomposition Temperature:**	Not determined.
· **Auto Igniting:**	Product is not selfigniting.
· **Danger of Explosion:**	Product is not explosive. However, formation of explosive air/vapor mixtures are possible.
· **Explosion Limits:**	
Lower:	Not determined.
Upper:	Not determined.
· **Vapor Pressure at 20 °C (68 °F):**	23 hPa (17.3 mm Hg) (methylcyclohexane)
· **Density at 20 °C (68 °F):**	ca. 1.0 g/cm³ (~8.35 lbs/gal)
· **Relative Density**	Not determined.
· **Vapour Density**	Not determined.
· **Evaporation Rate**	Not determined.
· **Solubility in / Miscibility with**	
Water:	Fully miscible.
· **Partition coefficient (n-octanol/water):**	Not determined.
· **Viscosity:**	
Dynamic at 20 °C (68 °F):	ca. 13.000 mPas Brookfield RVT (Sp. 6 / 20 rpm)
Kinematic:	Not determined.
· **9.2. Other information**	No further relevant information available.

10 Stability and reactivity

· **10.1. Reactivity**
see item 10.3
No further relevant information available.
· **10.2. Chemical stability** Stable when stored and used properly.
· **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
· **10.3. Possibility of hazardous reactions** No dangerous reactions known.
· **10.4. Conditions to avoid** No further relevant information available.
· **10.5. Incompatible materials:** No further relevant information available.

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· **10.6. Hazardous decomposition products:** No dangerous decomposition products known.

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11 Toxicological information

· **11.1. Information on toxicological effects**
· **Acute toxicity:** Based on available data, the classification criteria are not met.
· **LD/LC50 values that are relevant for classification:**

108-87-2 methylcyclohexane

Oral	LD_{50}	>2,300 mg/kg (rat)
Dermal	LD_{50}	>2,920 mg/kg (rabbit)
Inhalative	LC_{50} /4 h	>23.3 mg/l (rat)

2687-91-4 1-ethylpyrrolidin-2-one

Oral	LD_{50}	3,200 mg/kg (rat) BASF
Dermal	LD_{50}	>2,000 mg/kg (rat) OECD 402

108-01-0 2-dimethylaminoethanol

Oral	LD_{50}	2,000 mg/kg (rat)
Dermal	LD_{50}	>3,000 mg/kg (rbt)
Inhalative	LC_{50} /4 h	1,182.7 ppm (rat)

55965-84-9 a mixture of: 5-chloro-2-methyl-2 H -isothiazol-3-one [EC No 247-500-7] and 2-methyl-2 H -isothiazol-3-one [EC No 220-239-6] (3:1)

Oral	LD_{50}	53 mg/kg (rat)
Dermal	LD_{50}	141 mg/kg (rabbit)
Inhalative	LC_{50} /4 h	2.36 mg/l (rat)
	$LC_{50}/4h_{(Staeube,Nebel)}$	0.33 mg/l (rat)

· **Primary irritant effect:**
· **on the skin:**
Causes skin irritation.
· **on the eye:**
Causes serious eye damage.
· **Sensitization:** Based on available data, the classification criteria are not met.
· **Additional toxicological information:**

· **Carcinogenic categories**
· **IARC (International Agency for Research on Cancer)**

Styrene 1,3-butadiene polymer: 3

naphthalene: 2B
· **NTP (National Toxicology Program)**

91-20-3 naphthalene: R

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12 Ecological information

· **12.1. Toxicity**
· **Aquatic toxicity:**

108-87-2 methylcyclohexane
LC_{50} 5 mg / l / 48h (Japanese killifish - Oryzias latipes)

2687-91-4 1-ethylpyrrolidin-2-one
LC_{50} 464-999 mg / l / 96h (Zebrafish - Danio rerio)

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LC_{50} >100 mg / l / 48h (water flea - Daphnia)

55965-84-9 a mixture of: 5-chloro-2-methyl-2 H -isothiazol-3-one [EC No 247-500-7] and 2-methyl-2 H - isothiazol-3-one [EC No 220-239-6] (3:1)

LC_{50} 0.19 mg / l / 96h (Fathead minnow - Pimephales promelas)

0.19 mg / l / 96h (fish)

EC_{50} 0.16 mg / l / 48h (water flea - Daphnia)

EC_{50} 0.018 mg / l / 72h (green algae-Ps.kirchneriella subcapitata)

· **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.
· **Ecotoxical effects:**
· **Remark:** Harmful to fish
· **Additional ecological information:**
· **General notes:** Harmful to aquatic organisms
· **12.5. Results of PBT and vPvB assessment**
· **PBT:** Not applicable.
· **vPvB:** Not applicable.
· **12.6. Other adverse effects** No further relevant information available.

13 Disposal considerations

· **13.1. Waste treatment methods**
· **Recommendation:**
Can be disposed of with household garbage after solidification following consultation with the waste disposal facility operator and the pertinent authorities and adhering to the necessary technical regulations.
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
· **Uncleaned packagings:**
· **Recommendation:**
Non contaminated packagings can be used for recycling.
Empty contaminated packagings thoroughly. Disposal must be made according to official regulations.
· **Recommended cleansing agent:** Water, if necessary with cleansing agents.

14 Transport information

· **14.1. UN-Number**
· **TDG, IMDG, IATA** UN1133
· **14.2. UN proper shipping name**
· **IMDG, IATA** ADHESIVES
· **14.3. Transport hazard class(es)**

· **DOT**
· **Class** No dangerous good
Unnecessary
· **Class** 3 Flammable liquids
· **Class** 3 Flammable liquids
· **Label** 3
· **14.4. Packing group**
· **TDG, IMDG, IATA** III
· **14.5. Environmental hazards:**
· **Marine pollutant:** No
· **14.6. Special precautions for user** Warning: Flammable liquids
· **EMS Number:** F-E,S-D
· **Stowage Category** A
· **14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**

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· **IMDG**
· **Remarks:** Exempt in receptacles less than 30L (2.3.2.5 IMDG) // viscous liquids, flash point > 23°C

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15 Regulatory information

· **15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**
See position no 2 - Hazards Identification
· **SARA (Superfund Amendments and Reauthorization Act) - USA**
· **Section 355 (Extremely hazardous substances):**

None of the ingredients is listed.

· **Section 313 (Specific toxic chemical listings):**

None of the ingredients is listed.

· **TSCA (Toxic Substances Control Act) - USA: (Substances not listed)**

104376-72-9 poly(oxy-1,2-ethanediyl), α-[1,1'-biphenyl]-4-yl-ω-hydroxy-, benzylated

· **DSL (Canadian Domestic Substance List) - Canada: (Substances not listed)**

All ingredients are listed.

· **National regulations:**
· **Information about limitation of use:**
Employment restrictions concerning pregnant and lactating women must be observed.
Employment restrictions concerning women of child-bearing age must be observed.
· **VOC - Volatile Organic Compounds**
· **US (40CFR part59): VOC content [g / L]** 103.9 g/l / 0.87 lb/gl

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

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16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **USA: Relevant labels and warnings** HAZCOM LABEL: NOT REQUIRED

· **Relevant phrases**
H225 Highly flammable liquid and vapour.
H226 Flammable liquid and vapour.
H227 Combustible liquid.
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.
H318 Causes serious eye damage.
H332 Harmful if inhaled.
H335 May cause respiratory irritation.
H336 May cause drowsiness or dizziness.
H360 May damage fertility or the unborn child.

· **Department issuing SDS:** Safety & Environment
· **Abbreviations and acronyms:**
ICAO: International Civil Aviation Organisation
IMDG: International Maritime Code for Dangerous Goods
DOT: US Department of Transportation
IATA: International Air Transport Association
GHS: Globally Harmonised 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 (division of the American Chemical Society)

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NFPA: National Fire Protection Association (USA)
HMIS: Hazardous Materials Identification System (USA)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative