

SAFETY DATA SHEET

According to Reg. 1272/2008/EC and Reg. 878/2020/EU

1		CHEMICAL PRODUCT AND COMPANY IDENTIFICATION
1.1	Product name	CT 292 (CARTRIDGE) Code: ALC_M0113
1.2	Relevant identified uses of the substance or mixture and uses advised against	THERMO-CONDUCTIVE PASTE FOR INDUSTRIAL AND PROFESSIONAL USE USES ADVISED AGAINST: the product is not intended for use in the food industry and for human, cosmetic, farmaceutic and for animals use. Do not use for other purposes
1.3	Company name	ALC Tecnologie Adesive S.r.l.
	Address	Corso Vittorio Emanuele II, 6 - 10121 Turin (TO), Italy
	Telephone number	+39 011 9233400
	Fax number	+39 011 9233400
	E-mail address of the competent person responsible for Safety Data Sheet	info@alcgruppo.com
1.4	Emergency telephone number	Austria +43 1 31 00 472 France + 33 3 83 85 21 92 Belgium +32022649636 Bulgaria +359 2 9301214; +359 29301216 Croatia +38514686910 Czech Republic +420 267 082 236; +420 267 082 230; +420 267 082 229 Denmark +45 72 54 40 00 Estonia +372 794 3500 Finland +358 5052 000 Germany +49-30-18412-0 Greece +302106479250, +302106479450 Spain +34 917689800 Portugal +351213303271

2		HAZARDS IDENTIFICATION
GHS Symbols and hazard labelling according to Reg. 1272/2008/EC		
2.1	DEFINITION	MIXTURE
	HAZARD CLASSIFICATION	NOT HAZARDOUS
	GHS PICTOGRAMS	NO SIGNAL WORD
		NO GHS PICTOGRAM
	HAZARDS TO HUMAN	CLASSIFICATION CRITERIA ARE NOT MET
	CHEMICAL AND PHYSICALS HAZARDS	CLASSIFICATION CRITERIA ARE NOT MET
	HAZARDS TO ENVIRONMENT	CLASSIFICATION CRITERIA ARE NOT MET
2.2	Label elements	
	NO SIGNAL WORD	
	NO GHS PICTOGRAM	
	Hazard statements	
	EUH210 - Safety Data Sheet available on request	
	Precautionary statements	

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	SUBSTANCES ON LABEL ---
	SPECIAL PROVISIONS NONE
	SPECIAL PROVISIONS ACCORDING TO ANNEX XVII OF REACH REGULATION AND SUBSEQUENT AMENDMENTS NONE
2.3	Other hazards
	The mixture meets criteria for PBT according to Reg. (EC) 1907/2006, all. XIII Not applicabile
	The mixture meets the criteria for vPvB according to Reg.(EC) 1907/2006, all. XIII Not applicabile
	Other hazards All. XVII Reach: Point 75
The product does not contain substances with endocrine-disrupting properties in concentrations $\geq 0.1\%$.	

3 COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances: not applicable

3.2 Mixtures: applicable

Chemical name of hazardous substances	CAS N.	EC N.	Pictograms	Classification, Hazard statements H The full text of the Hazard statements is in section 16	Conc. [%]
			Reg. UE 1272/2008	Reg. 1272/2008/CE	
RESIN ACIDS AND ROSIN ACIDS, HYDROGENATED, METHANOL ESTERS INDEX: n.d. Reg. REACH 01-2119969275-26-XXXX	8050-15-5	232-476-2	No GHS pictograms	Aquatic Chronic 3 H412	7,5 ±2,5

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, meet the PBT or vPvB criteria or are considered to be of equivalent concern substances or substances which it has been assigned a workplace exposure limit and hence require reporting in this section.



The upper limits of the ranges of concentration are excluded

Occupational exposure limits, if available, are listed in Section 8



4 FIRST AID MEASURES

Description of first aid measures	
Eye contact	<ul style="list-style-type: none"> • Immediately contact a physician or an anti-theft center • Rinse immediately with plenty of water under the eyelids for at least 15 minutes • If you have difficulty opening the eyelids, administer an analgesic eye drop
4.1 Skin contact	<ul style="list-style-type: none"> • Immediately remove any contaminated clothing and shoes • Wash immediately with plenty of water • Keep warm in a quiet place • Immediately contact a physician or an anti-theft center • Wash contaminated clothing before reusing it
Swallowing	<ul style="list-style-type: none"> • Immediately contact a physician or an anti-theft center • Bring the injured person to the hospital immediately • In case of ingestion, rinse the mouth with water (only if the injured person is conscious). • DO NOT induce vomiting

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	Inhalation	<ul style="list-style-type: none"> • Bring outdoors • Use oxygen or artificial respiration if necessary • Slide the injured person into rest, cover it and keep it warm • Call a physician immediately
	Protection of rescuers	No action shall be got involving any personal risk or without proper training
	Other informations	Immediately remove contaminated clothing
	Most important symptoms and effects, acute and delayed	
4.2	Inhalation	None
	Skin contact	Symptoms: none Effects: none
	Eye contact	Symptoms: none Effects: possible light irritation
	Ingestion	None
	Medical attention and special treatment	Treat symptomatically. If ingested or inhaled (large amounts), immediately contact a poison control center. No specific treatment is not known.
5	FIRE FIGHTING MEASURES	
5.1	Suitable extinguishing agents	The product is not classified as flammable but contains combustible components. In the event of a fire the following extinguishing means can be used: carbon dioxide (CO ₂), foam, chemical powders, in the case of fires of considerable size, also sprayed water jet
5.2	Unsuitable extinguishing agents for safety reasons	None in relation to the presence of the product
5.3	Special hazards caused by the substance and its combustion products or resulting gases	In case of fire, exposed to high temperature, it may burn, decompose and develop hazardous substances such as carbon oxides, heavy smokes
5.4	Protective equipment	Use protection for the respiratory tract. Cool fire exposed containers with water
5.5	Recommendations for Fire Extinguishers	Cool containers with water jets to avoid product decomposition and the development of substances potentially hazardous to health. Always wear complete fire protection equipment. Collect extinguishing water that should not be discharged into drains. Dispose of contaminated water used for fire extinguishing and residues in accordance with current regulations. Use normal fire fighting clothing such as an open-air compressor (EN 137), full flame retardant (EN469), flame retardant gloves (EN 659) and boots for firefighters (HO A29 or A30).
6	ACCIDENTAL RELEASE MEASURES	
	Personal precautions, protective equipment and procedures in case of emergency	
6.1	Person-related safety precautions	Ensure adequate ventilation, avoid contact with mists and breathing vapours. Use safety gloves and clothes.
	Measures for environmental protection	Do not allow product to reach sewage system or any water course  
	Additional informations	Collect residues in a container identified, refer to Section 13 for disposal
	Methods and materials for containment and cleaning	
6.2	Measures for cleaning/collecting (small spill)	Absorb and pick up mechanically. Treat washing waste water according to local environmental regulation.

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	Measures for cleaning/collecting (large spill)	Stop leak if without risk. Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Wash and channel the amount spilled in a treatment plant discharges or proceed as follows. Contain spillage, absorb and collect by mechanical means and disposal of the product in a container in accordance with local regulations. Dispose of via a licensed waste disposal company.
6.3	Reference to other sections	
	Emergency telephone numbers	See section 1
	Protection devices individual.	See section 8
	Waste treatment	See section 13
7	HANDLING AND STORAGE	
7.1	Handling, Directions for safe handling	<p>Check the integrity of the containers before moving them. Handle the containers carefully. Do not smoke in the work and storage areas. Food and drinks should only be consumed in the designated areas after removing contaminated clothing and protective equipment and after washing hands. Wash hands in any case after handling the product.</p>  
7.2	Storage	<p>It is recommended to keep the containers tightly closed, in a cool and dry place. Do not expose to water and moisture. Follow the storage conditions shown on the packaging. Keep away from food, drink and feed. Incompatible materials: None in particular. See also the following paragraph 10.</p>
7.3	Specific end uses	<p>THERMO-CONDUCTIVE PASTE For industrial and professional use. Recommendations on special applications must be evaluated case by case, also in relation to the composition of the commercial product containing the substance, if applicable, account duly taken of the field of activity for which a substance or mixture is intended and its technological and production cycles.</p>

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8 EXPOSURE CONTROLS / PERSONAL PROTECTION		
8.1	Control parameters	<p>Calcium carbonate</p> <p>WEL GBR – TWA: 10 mg/m³ INALAB WEL GBR– TWA: 4 mg/m³ RESPIR TLV-ACGIH: 10 mg/m³ INALAB TLV-ACGIH 3 mg/m³ RESPIR</p>
	Calcium carbonate, precipitated	<p>WEL GBR – TWA: 10 mg/m³ INALAB WEL GBR– TWA: 4 mg/m³ RESPIR (dust) TLV-ACGIH: 10 mg/m³ INALAB TLV-ACGIH 3 mg/m³ RESPIR</p> <p>DNEL (oral) Consumers - acute systemic effects: 6.1 mg/kg/d Consumers - chronic systemic effects: 6.1 mg/kg/d DNEL (Inhalation) Consumers - chronic local effects: 1.06 mg/m³ Consumers - chronic systemic effects: 1.06 mg/m³ DNEL (Inhalation) Workers - chronic local effects: 4.26 mg/m³ Workers - chronic systemic effects: 10 mg/m³</p>
	Mineral Oil	<p>TLV-ACGIH: TWA:5 mg/m³ STEL:10 mg/m³</p> <p>DNEL (Inhalation) Consumers - chronic local effects: 1.2 mg/m³ DNEL (Inhalation) Workers - chronic local effects: 5.4 mg/m³</p>
	Resin acids and rosin acids, hydrogenated, methanol esters	<p>fresh water 0.027 mg/l seawater 0.0027 mg/l fresh water 625.79 mg/kg seawater 62.58 mg/kg Water, intermittent release 0.27 mg/l STP microorganisms 1.26 mg/l terrestrial compartment 125 mg/kg</p> <p>DNEL (oral) Consumers - chronic systemic effects: 3.8 mg/kg/d DNEL (Inhalation) Consumers - chronic systemic effects: 13.2 mg/m³ DNEL (dermal) Consumers - chronic systemic effects: 3.8 mg/kg/d DNEL (Inhalation) Workers - chronic systemic effects: 44.6 mg/m³ DNEL (dermal) Workers - chronic systemic effects: 6.3 mg/kg/d</p>
Exposure control		
8.2	Recommended monitoring procedures	The use of appropriate technical measures should always have priority over personal protective equipment, ensure good ventilation at the place of use. When choosing personal protective equipment, ask your chemical suppliers if necessary. Personal protective equipment must bear the CE marking attesting to their compliance with applicable regulations.
	Individual protection measures	Before eating, smoking and using the bath and at the end of the working period, wash your hands, arms, and face thoroughly after handling chemicals.
	Environmental protection devices	Emissions from ventilation equipment or work processes should be checked to ensure they are in compliance with the requirements of environmental protection legislation. In some cases, you will need to smoke, add filters, or make technical changes to process equipment to reduce emissions to acceptable levels
	Respiratory protection	Not necessary for normal use
	Eyes protection	Not necessary for normal use. Avoid direct contact with eyes
	Hands protection	Not necessary for normal use
	Skin protection	Not necessary for normal use
	Other informations	Keep away from foodstuffs. Wash hands thoroughly after handling the product. Keep working clothes separately. Immediately remove contaminated clothing. Follow the local Safety Management standards and instructions.

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9 PHYSICAL AND CHEMICAL PROPERTIES	
Information on basic physical and chemical properties	
Appearance	Pasty
Colour	ivory
PH	Not applicable because insoluble in water
Odour	Odoursless
Odour threshold	No available data
Dynamic viscosity	1810 Pa.s
Kinematic viscosity	1070000 mm ² /sec
Density	1,7 kg/l
9.1 Density of vapours (air = 1)	No available data
Flash point	Not applicable
Melting temperature	0°C
Boiling temperature	No available data
Self-ignition temperature	>240°C
Explosive range	Not applicable
Comburent properties	Not applicable
Vapour pressure	No available data
Water solubility	Solubile
Partition coefficient n-octanol/water (log Pow)	No available data
Other informations	
9.2 VOC (Directive 2010/75/CE)	27,96 % - 475,37 g/l
Total solids ((250°C / 482°F)	72,04 %
10 STABILITY AND REACTIVITY	
10.1 Reactivity	Stable in normal conditions. No further relevant information available
10.2 Chemical stability	Stable under normal conditions of handling and storage
10.3 Possibility of dangerous reactions	No dangerous reactions are known
10.4 Conditions to avoid	Avoid overheating and direct exposure to UV radiation
10.5 Incompatible materials	No relevant information available
10.6 Hazardous decomposition products	No relevant information available
11 TOXICOLOGICAL INFORMATIONS	
Toxicological effects	
11.1 Acute toxicity	Resin acids and rosin acids, hydrogenated, methanol esters - CAS No. 8050-15-5 LD50 (Dermal): > 2000 mg/kg Rat/Rat/Rata/Şobolan LD50 (Oral): > 2000 mg/kg Rat/Rat/Rata/Şobolan
Chronic toxicity	No available data
Effect on eye	Classification criteria are not met

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	Effect on skin	Classification criteria are not met
	Inhalation	Classification criteria are not met
	Sensitisation	Classification criteria are not met Resin acids and rosin acids, hydrogenated, methanol esters - CAS No. 8050-15-5 Contains rosin or a rosin derivative. Smoke or fumes generated by heating may lead to respiratory sensitization (asthma) in sensitive individuals.
	Ingestion	Classification criteria are not met
	Toxic effect by skin contact	Classification criteria are not met
	Specific Target Organ Toxicity (STOT) — single or repeated exposure	Classification criteria are not met
	Hazards by aspiration	Classification criteria are not met.
	CMR properties	
	Carcinogenicity	Classification criteria are not met
	Mutagenicity	Classification criteria are not met. In vitro and in vivo studies on components indicate that the product is not genotoxic
	Toxicity for reproduction	Classification criteria are not met
	Short and long term exposures: immediate, delayed and chronic effects	
	No other informations	
11.2	According to the available data, the product does not contain any substances listed in the main European lists of potential or suspected endocrine disruptors with effects on human health under evaluation	

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12 ECOLOGICAL INFORMATIONS		
12.1	Eco-toxicity	Resin acids and rosin acids, hydrogenated, methanol esters - CAS No. 8050-15-5 LC50 - Fish > 1000 mg/l/96h Pimephales promelas EC50 - Crustaceans 27 mg/l/48h Daphnia EC50 - Algae/Aquatic Plants > 1000 mg/l/72h Selenastrum capricornutum
12.2	Persistence and degradability	Resin acids and rosin acids, hydrogenated, methanol esters-CAS No. 8050-15-5 NOT rapidly degradable 54% (28 d)
12.3	Bioaccumulative potential	Product does not contain bioaccumulative substances
12.4	Mobility in soil	In relation to the physical configuration of the product components, a high level of mobility in soil is expected
12.5	Results of PBT and vPvB assessment	For evaluations of the PBT and vPvB assessment of the substances/mixtures contained in the product, see the information on the individual components. This mixture contains no substances evaluated persistent, bioaccumulative and toxic (PBT) or very persistent and very bioaccumulative (vPvB).
12.6	Endocrine-disrupting properties	According to the available data, the product does not contain any substances listed in the main European lists of potential or suspected endocrine disruptors with environmental effects under evaluation
12.7	Other adverse effects	None. The product does not contain halogenated organic compounds (AOX). Avoid pollution of waste water or entering soils. Do not allow to enter ground water, water course or sewage system

13 DISPOSAL CONSIDERATIONS

The information in this section contains instructions and general notes. The list of identified uses in section 1 for specific information available

13.1	Waste treatment methods	<p>Product The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the law on environmental protection and waste disposal legislation and the requirements of any relevant local authorities. Dispose of surplus and non-recyclable products via a licensed waste disposal. The untreated waste should not be disposed of in the sewer system unless they are not fully compliant with the requirements of each institution and legislation. Hazardous waste: YES</p> <p>Packaging The generation of waste should be avoided or minimized wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. Dispose of this material and its container must be with proper precautions. Empty containers or liners may retain some product residues. Prevent drift and runoff of spilled material and contact with soil, waterways, drains and sewers</p>
13.2	European waste catalogue (EWC)	For disposal within the EU is roughly from the code used by the sudden refusal to register the European Waste Catalogue (EWC)

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14 TRANSPORT INFORMATION		
14.1	UN Number or ID Number	Not applicable
14.2	Official UN transport designation	Not applicable
14.3	Transport hazard classes	Unregulated
14.4	Packaging group	Unregulated
14.5	Environmental hazards	Not applicable
14.6	Special Precautions for users	Transport within the user's property: always transport in closed containers, stored vertically and secured to the means of transport. Ensure the suitability of the persons carrying out the transport to intervene effectively in the event of an accident and/or spillage.
14.7	Maritime transport in bulk according to IMO Acts	No information available
15 REGULATORY INFORMATION		
15.1	Reg. 1907/2006/EC (REACH)	<p>The list of applicable regulations is indicative and non exhaustive. Users of the product must examine the specific regulations and the recommendations on the correct use of the product on a case-by-case basis.</p> <ul style="list-style-type: none"> • Regulation (EC) N. 1907/2006 of 18 December 2006 (Registration, Evaluation, Authorisation and Restriction of Chemicals - REACH Regulation). • Regulation (EC) N. 1907/2006 ANNEX XVII Conditions of restriction: none <p>Regulation (EU) 790/2009 (I Atp. CLP) of the European Parliament Regulation (EU) 2015/830 of the European Parliament Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament Regulation (EU) 2015/1221 (VII Atp. CLP) of the European Parliament Regulation (EU) 2016/918 (VIII Atp. CLP) of the European Parliament Regulation (EU) 2016/1179 (IX Atp. CLP) Regulation (EU) 2017/776 (X Atp. CLP) Regulation (EU) 2018/669 (XI Atp. CLP) Regulation (EU) 2018/1480 (XIII Atp. CLP) Regulation (EU) 2019/521 (XII Atp. CLP) Regulation (EU) 2019/1148 Delegated Regulation (EU) 2020/217 (XIV Atp. CLP) Delegated Regulation (EU) 2020/1182 (XV Atp. CLP) Delegated Regulation (EU) 2021/643 (XVI Atp. CLP) Delegated Regulation (EU) 2021/849 (XVII Atp. CLP) Delegated Regulation (EU) 2022/692 (XVIII Atp. CLP)</p>
15.2	Chemical safety assessment	<p>A chemical safety assessment is not available for the substances present. There are no substances classified as hazardous.</p> <p>Consider the chemical safety assessment, taking into account in particular the chemical and physical properties, and the circumstances of use of the substance or mixture.</p>

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16 OTHER INFORMATIONS		
	Full text of H statements, sections 2 and 3	---
16.1	Abbreviations and acronyms	<p>ACGIH: American Conference of Governmental Industrial Hygienist. ADN: European Agreement concerning the international carriage of dangerous goods by inland waterways. ADR: European Agreement concerning the international carriage of dangerous goods by road. BEI: Biological exposure limit: it indicates the relative biological agent or its metabolite established by ACGIH. EC50: Median effective concentration: the effective concentration of substance that causes in the 50% of individuals a different effect from death (immobilization, stunting etc.). LC0: The highest dose used that does not cause any death. DFG: German Commission for the study of the health hazards of chemicals in the workplace. LD50: Median dose: single dose of substance, statistically evaluated, which is expected to cause death in 50% of treated animals. PPE: Personal protective equipment IARC: International Agency for Research on Cancer. IBC: International Bulk Chemical Code: International Code for Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk. ICAO: International Civil Aviation Organisation; it refers to Annex 18 of the Convention on International Civil Aviation "Safety of air transport of dangerous goods". IMDG: International Maritime Dangerous Goods code for transport of dangerous goods by sea. IMO: International Maritime Organization. Kow: Partition coefficient between n-octanol and water. It is defined as the ratio between the equilibrium concentrations of a dissolved substance in a system consisting of n-octanol and water. It is a measure of the lipophilicity of the substance. LOAEL: Lowest Observed Adverse Effect Level MAK: Maximum concentration of a chemical substance (as gas, vapor or particulate matter) in the workplace air which generally does not cause adverse effects on workers' health nor cause annoyance even when the person is repeatedly exposed during long periods (typically 8 hours per day, assuming an average of 40 hours of work per week). MARPOL: Protocol on Transport in bulk according to IMO. NOEC: No Observed Effect Concentration NOEL: No Observed Effect Level RID: European Agreement concerning the international carriage of dangerous goods by rail. CNS: Central nervous system. STEL: Threshold Limit Value - Short Term Exposure Limit: the concentration to which it is considered that workers can be exposed continuously for 15 minutes to up to 4 times per day with an interval of 60 minutes between exposures without suffering adverse effects. TLV: Threshold Limit Value established by ACGIH. TWA: Threshold Limit Value - Time-Weighted Average: the concentration for a conventional 8-hour workday and a 40-hour workweek, to which it is considered that nearly all workers may be repeatedly exposed, day after day, for a working lifetime without adverse effects. DNEL: Derived No-Effect Level PNCE: Predicted no-effect concentration</p>
16.2	Bibliographic references	<p>ECDIN - Environmental Chemical Data and Information Network IUCLID - International Uniform Chemical Information Data Base ECHA C&L inventory NIOSH - Registry of Toxic Effects of Chemical Substances IFA_GESTIS - http://limitvalue.ifa.dguv.de/ HSDB TOXNET - https://toxnet.nlm.nih.gov/</p>
16.3	Changes to previous version	All sections were updated according to Reg. 878/2020/EU
16.4	Further informations	The information herein is correct at the Reg 1272/2008/EC and following amendments. Product conforms to the requirements provided in Title II of Regulation 1907/2006/EC (the registration of substances). None of the substances in this product is subject to authorization (annex 14) or is included in the candidate list of SVHCs under the REACH Regulation, the issuance of this sheet

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16.5	Disclaimer	<p>This MSDS complies with the requirements of Reg 878/2020/EU. It does not excuse in any way the user from knowing and applying all texts governing his activity. The user will take under its responsibility the precautions related to the use of the product. The set of regulations mentioned is intended simply to help the recipient to fulfill her obligations. This list should not be considered as a technical note details. The information is based on our knowledge of the product, the date indicated. They are given in good faith. The attention of the user is directed to possible risks incurred when a product is used for other purposes than for which it was conceived. The recipient must ensure that no other obligations to compete on the basis of texts in addition to those mentioned</p>
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