

SAFETY DATA SHEET

According to Annex II to REACH - Regulation (EU) 2020/878 and to Annex II to UK REACH

Revision date: 22.05.2023

1 - IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY/ UNDERTAKING

Product details

Trade name: Primer for 773 adhesive for windscreens

Article number: 38721

Product form: Mixture

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

Relevant identified uses: One-component, moisture-hardening polyurethane primer/For professional use

Uses advised against: No additional information available

Intended use: Car refinishing product/Adhesives

Manufacturer/Supplier:

Chamäleon GmbH
Rudolf-Diesel-Straße, 8a,
69115 Heidelberg
Germany

Further information obtainable from: Product Safety Department

Information in case of emergency: + 49 70024112112 (CH)

2 – HAZARDS IDENTIFICATION

Classification of the substance or mixture

The product is classified as hazardous pursuant to the provisions set forth in (EC) Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of (EU) Regulation 2020/878.

Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Hazard classification and indication:

Flammable liquid, category 3	H226	Flammable liquid and vapour.
Acute toxicity, category 4	H332	Harmful if inhaled.
Eye irritation, category 2	H319	Causes serious eye irritation.
Specific target organ toxicity - single exposure, category 3	H335	May cause respiratory irritation.
Skin sensitization, category 1	H317	May cause an allergic skin reaction.
Specific target organ toxicity - single exposure, category 3	H336	May cause drowsiness or dizziness.

Label elements

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:



Signal words: Warning

Hazard statements:

H226 Flammable liquid and vapour.

H332 Harmful if inhaled.

H319 Causes serious eye irritation.

H335 May cause respiratory irritation.

H317 May cause an allergic skin reaction.

H336 May cause drowsiness or dizziness.

EUH066 Repeated exposure may cause skin dryness or cracking.

Precautionary statements:

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources No smoking.

P280 Wear protective gloves/ protective clothing / eye protection / face protection.

P370+P378 In case of fire: use carbon dioxide, foam, chemical powder to extinguish. Do not use jets of water.

P261 Avoid breathing dust / fume / gas / mist / vapours / spray.

P312 Call a POISON CENTRE / doctor / see point 1.4 in MSDS if you feel unwell.

Contains: aliphatic polyisocyanate; butanone; ethyl acetate

As from 24 August 2023, industrial or professional use shall be permitted only after having received appropriate training

Other hazards

On the basis of available data, the product does not contain any PBT or vPvB in percentage \geq than 0,1%.

The product does not contain substances with endocrine disrupting properties in concentration \geq 0.1%.

3- COMPOSITION/INFORMATION ON INGREDIENTS

Mixture

Name	Product identifier	x = Conc. %	Classification (EC) 1272/2008 (CLP)
butanone	INDEX 606-002-00-3 EC 201-159-0 CAS 78-93-3	30 ≤ x < 32,5	Flam. Liq. 2 H225, Eye Irrit. 2 H319, STOT SE 3 H336, EUH066
ethyl acetate	INDEX 607-022-00-5 EC 205-500-4 CAS 141-78-6 REACH Reg. 01-2119475103-46-XXXX	30 ≤ x < 32,5	Flam. Liq. 2 H225, Eye Irrit. 2 H319, STOT SE 3 H336, EUH066
aliphatic polyisocyanate	INDEX – EC 931-274-8 CAS 28182-81-2 REACH Reg. 01-2119485796-17-0002	20 ≤ x < 21,5	Acute Tox. 4 H332, STOT SE 3 H335, Skin Sens. 1 H317 EC 931-274-8 STA Inhalation vapours: 11 mg/l, STA Inhalation mists/powders: 1,5 mg/l

The full wording of hazard (H) phrases is given in section 16 of the sheet.

4- FIRST - AID MEASURES

Eyes: Remove contact lenses, if present. Wash immediately with plenty of water for at least 15 minutes, opening the eyelids fully. If problem persists, seek medical advice.

Skin: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention immediately. Wash contaminated clothing before using it again.

Inhalation: Remove to open air. If the subject stops breathing, administer artificial respiration. Get medical advice/attention immediately.

Ingestion: Get medical advice/attention immediately. Do not induce vomiting. Do not administer anything not explicitly authorised by a doctor.

Most important symptoms and effects, both acute and delayed

Specific information on symptoms and effects caused by the product are unknown.

Indication of any immediate medical attention and special treatment needed

Information not available

5- FIRE - FIGHTING MEASURES

Extinguishing media

Suitable extinguishing equipment:

Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

Unsuitable extinguishing equipment

Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

Special hazards arising from the substance or mixture

Hazards due to exposure in the event of fire

Overpressure can be created in containers exposed to fire with danger of explosion. Avoid breathing combustion products. They are: Carbon oxides (CO / CO₂), Nitrogen oxides

Advice for firefighters

General information

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.

Special protective equipment for fire-fighters

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

6- ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Emergency personnel:

Stop the leak if there is no danger.

Wearing of suitable protective equipment (including personal protective equipment referred to in section 8 of the safety data sheet) to prevent contamination of skin, eyes and personal clothing. These indications are valid both for those involved in the work and for emergency interventions.

Keep unequipped people away. Use explosion-proof equipment. Remove all sources of ignition (cigarettes, flames, sparks, etc.) or heat from the area where the leak occurred.

Non-emergency personnel:

Do not breathe vapours, aerosols. Avoid contact with the substance. Evacuate danger area, observe emergency procedures.

Environmental precautions

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

Methods and material for containment and cleaning up

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.

- Make sure the leakage site is well aired. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

Reference to other sections

Any information on personal protection and disposal is given in sections 8 and 13.

7- HANDLING AND STORAGE

Precautions for safe handling

Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire. Avoid bunching of electrostatic charges. When performing transfer operations involving large containers, connect to an earthing system and wear antistatic footwear. Vigorous stirring and flow through the tubes and equipment may cause the formation and accumulation of electrostatic charges. In order to avoid the risk of fires and explosions, never use compressed air when handling. Open containers with caution as they may be pressurised. Do not eat, drink or smoke during use. Avoid leakage of the product into the environment.

Conditions for safe storage, including any incompatibilities

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Store in a cool and well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

Specific end use(s)

Information not available

8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters

Regulatory References:

DEU Deutschland

Technischen Regeln für Gefahrstoffe (TRGS 900) - Liste der Arbeitsplatzgrenzwerte und Kurzzeitwerte. MAK- und BAT-Werte-Liste 2020, Ständige Senatskommission zur Prüfung gesundheitsschädlicher Arbeitsstoffe, Mitteilung 56

FRA France

Valeurs limites d'exposition professionnelle aux agents chimiques en France. ED 984 - INRS

ITA Italia

Decreto Legislativo 9 Aprile 2008, n.81

GBR United Kingdom

EH40/2005 Workplace exposure limits (Fourth Edition 2020)

EU OEL EU

Directive (EU) 2022/431; Directive (EU) 2019/1831; Directive (EU) 2019/130; Directive (EU) 2019/983;

Directive (EU) 2017/2398; Directive (EU) 2017/164; Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC; Directive 98/24/EC; Directive 91/322/EEC.

TLV-ACGIH

ACGIH 2022

BUTANONE

Threshold Limit Value

Type	Country	TWA/8h		STEL/15min		Remarks /
		mg/m3	ppm	mg/m3	ppm	Observations
AGW	DEU	600	200	600	200	SKIN
MAK	DEU	600	200	600	200	SKIN
VLEP	FRA	600	200	900	300	SKIN
VLEP	ITA	600	200	900	300	
WEL	GBR	600	200	899	300	SKIN
OEL	EU	600	200	900	300	
TLV-ACGIH		590	200	885	300	

Legend: (C) = CEILING; INHAL = Inhalable Fraction; RESP = Respirable Fraction; THORA = Thoracic Fraction.

Exposure controls

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.

When choosing personal protective equipment, ask your chemical substance supplier for advice.

Personal protective equipment must be CE marked, showing that it complies with applicable standards.

Provide an emergency shower with face and eye wash station.

Hand protection

Protect your hands with category III work gloves.

Suitable materials for protective gloves; EN ISO 374: Polychloroprene - CR: thickness \geq 0,5mm; breaking time \geq 480min. Nitrile rubber - NBR:

thickness \geq 0,35mm; breaking time \geq 480min. Butyl rubber - IIR: thickness \geq 0,5mm; breaking time \geq 480min. Fluororubber - FKM: thickness \geq

0,4mm; breaking time \geq 480min. Neoprene (0.5 mm) is recommended. Gloves not recommended: gloves not waterproof. Gloves have a wear time that depends on the duration and method of use.

Skin protection

Wear category II professional long-sleeved overalls and safety footwear (see Regulation 2016/425 and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.

- Consider the appropriateness of providing antistatic clothing in the case of working environments in which there is a risk of explosion.

Eye protection

Wear airtight protective goggles (see standard EN 166).

Respiratory protection

If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, use a mask with a type A filter whose class (1, 2 or 3) must be chosen according to the limit of use concentration. (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.

Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.

If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.

Environmental exposure controls

The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

9 – PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance:	<i>liquid</i>
Colour:	<i>black</i>
Odour:	<i>Characteristic</i>
Melting point: / Freezing point:	<i>-90 °C</i>
Boiling point:	<i>130 °C</i>
Flammability	<i>flammable liquid</i>
Lower explosive limit	<i>not available</i>
Upper explosive limit	<i>not available</i>
Flash point:	<i>23<T<60°C</i>
Auto-ignition temperature:	<i>No data available</i>
Decomposition temperature:	<i>No data available</i>
pH	<i>not applicable</i>
Viscosity, kinematic:	<i>No data available</i>
Viscosity, dynamic:	<i>80 sec</i>
Solubility:	<i>soluble in organic solvents</i>
Partition coefficient:	<i>n-octanol/water N.D.</i>
Vapour pressure:	<i>40 mmHg</i>

Density and/or relative density:	<i>0,98 kg/l</i>
Relative density:	<i>No data available</i>
Particle characteristics	<i>not applicable</i>
Other information	
Information with regard to physical hazard classes	Information not available
Evaporation rate	<i>not determined</i>
Total solids (250°C / 482°F)	<i>0 %</i>
VOC (Directive 2010/75/EU)	<i>30,00 % - 294,00 g/litre</i>
VOC (volatile carbon)	<i>19,97 % - 195,70 g/litre</i>

10- STABILITY AND REACTIVITY

Reactivity

There are no particular risks of reaction with other substances in normal conditions of use.

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Reacts with: light metals, strong oxidants. Attacks various types of plastic materials. Decomposes under the effect of heat.

Chemical stability

The product is stable in normal conditions of use and storage.

Possibility of hazardous reactions

The vapours may also form explosive mixtures with the air.

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May form peroxides with: air, light, strong oxidising agents. Risk of explosion on contact with: hydrogen peroxide, nitric acid, sulphuric acid. May react dangerously with: oxidising agents, trichloromethane, alkalis.

Forms explosive mixtures with: air.

Conditions to avoid

Avoid overheating. Avoid bunching of electrostatic charges. Avoid all sources of ignition.

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Avoid exposure to: sources of heat.

Incompatible materials

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Incompatible with: strong oxidants, inorganic acids, ammonia, copper, chloroform.

Hazardous decomposition products

In the event of thermal decomposition or fire, gases and vapours that are potentially dangerous to health may be released.

11- TOXICOLOGICAL INFORMATION

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.

It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

Information on hazard classes as defined in Regulation (EC) No 1272/2008

Metabolism, toxicokinetics, mechanism of action and other information

Information not available

Information on likely routes of exposure

Information not available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Information not available

Interactive effects

Information not available

ACUTE TOXICITY

ATE (Inhalation - mists / powders) of the mixture: Acute Tox. 4

ATE (Inhalation - vapours) of the mixture: Acute Tox. 4

ATE (Inhalation - gas) of the mixture: Acute Tox. 4

ATE (Oral) of the mixture: Not classified (no significant component)

ATE (Dermal) of the mixture: Not classified (no significant component)

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LD50 (Dermal): 6480 mg/kg Rabbit

LD50 (Oral): 2737 mg/kg Rat

LC50 (Inhalation vapours): 23,5 mg/l/8h Rat

ALIPHATIC POLYISOCYANATE

LD50 (Dermal): > 2000 mg/kg Ratto

LD50 (Oral): > 2500 mg/kg Ratto

LC50 (Inhalation mists/powders): 0,39 mg/l/4h Ratto

STA (Inhalation mists/powders): 1,5 mg/l estimate from table 3.1.2 of Annex I of the CLP
(figure used for calculation of the acute toxicity estimate of the mixture)

LC50 (Inhalation vapours): 7,7 mg/l/4h Ratto

STA (Inhalation vapours): 11 mg/l estimate from table 3.1.2 of Annex I of the CLP (figure used for calculation of the acute toxicity estimate of the mixture)

Skin corrosion / irritation

Repeated exposure may cause skin dryness or cracking.

Serious eye damage / irritation

Causes serious eye irritation

Respiratory or skin sensitisation

Sensitising for the skin

Germ cell mutagenicity

Does not meet the classification criteria for this hazard class

Carcinogenicity

Does not meet the classification criteria for this hazard class

Reproductive toxicity

Does not meet the classification criteria for this hazard class

Stot - single exposure

May cause respiratory irritation

May cause drowsiness or dizziness

Stot - repeated exposure

Does not meet the classification criteria for this hazard class

Aspiration hazard

Does not meet the classification criteria for this hazard class

Information on other hazards

Based on the available data, the product does not contain substances listed in the main European lists of potential or suspected endocrine disruptors with human health effects under evaluation.

12 – ECOLOGICAL INFORMATION

Use this product according to good working practices. Avoid littering. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation.

Toxicity Information not available

Persistence and degradability:

ALIPHATIC POLYISOCYANATE

Solubility in water 0,1 - 100 mg/l

Degradability: information not available

BUTANONE

Solubility in water > 10000 mg/l

Rapidly degradable

Bioaccumulative potential:

ALIPHATIC POLYISOCYANATE

Partition coefficient: n-octanol/water 5,54

BCF 367,7

BUTANONE

Partition coefficient: n-octanol/water 0,3

Mobility in soil:

ALIPHATIC POLYISOCYANATE

Partition coefficient: soil/water 7,3

Results of PBT and vPvB assessment: On the basis of available data, the product does not contain any PBT or vPvB in percentage \geq than 0,1%.

Endocrine disrupting properties

Based on the available data, the product does not contain substances listed in the main European

- lists of potential or suspected endocrine disruptors with environmental effects under evaluation.

Other adverse effects

Information not available

13- DISPOSAL CONSIDERATIONS**Waste treatment methods**

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.

Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.

Waste transportation may be subject to ADR restrictions.

Contaminated packaging

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

14- TRANSPORT INFORMATION**UN number or ID number**

ADR / RID, IMDG, IATA: 1866

UN proper shipping name

ADR / RID: RESIN SOLUTION

IMDG: RESIN SOLUTION

IATA: RESIN SOLUTION

Transport hazard class(es)

ADR / RID: Class: 3 Label: 3

IMDG: Class: 3 Label: 3

IATA: Class: 3 Label: 3

Packing group

ADR / RID, IMDG, IATA: III

Environmental hazards

ADR / RID: NO

IMDG: NO

IATA: NO

Special precautions for user

ADR / RID: HIN - Kemler: 30; Limited Quantities: 5L; Tunnel restriction code: (D/E) , Special provision: -

IMDG: EMS: F-E, S-E; Limited Quantities: 5L

IATA: Cargo: Maximum quantity: 220L, Packaging instructions: 366; Passengers: Maximum quantity: 60 L;

Packaging instructions: 355; Special provision: A3

- Maritime transport in bulk according to IMO instruments
Information not relevant

15 – REGULATORY INFORMATION

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

Seveso Category - Directive 2012/18/EU: P5c

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006

Product Point 3-40

Contained substance Point 75

Regulation (EU) 2019/1148 - on the marketing and use of explosives precursors

not applicable

Substances in Candidate List (Art. 59 REACH)

On the basis of available data, the product does not contain any SVHC in percentage \geq than 0,1%.

Substances subject to authorisation (Annex XIV REACH)

None

Substances subject to exportation reporting pursuant to Regulation (EU) 649/2012:

None

Substances subject to the Rotterdam Convention:

None

Substances subject to the Stockholm Convention:

None

Healthcare controls

Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the workers' health and safety are modest and that the 98/24/EC directive is respected.

Chemical safety assessment

A chemical safety assessment has not been performed for the preparation/for the substances indicated in section 3.

16-OTHER INFORMATION

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Flam. Liq. 2 Flammable liquid, category 2

Flam. Liq. 3 Flammable liquid, category 3

Acute Tox. 4 Acute toxicity, category 4

Eye Irrit. 2 Eye irritation, category 2

■ STOT SE 3 Specific target organ toxicity - single exposure, category 3

Skin Sens. 1 Skin sensitization, category 1

H225 Highly flammable liquid and vapour.

H226 Flammable liquid and vapour.

H332 Harmful if inhaled.

H319 Causes serious eye irritation.

H335 May cause respiratory irritation.

H317 May cause an allergic skin reaction.

H336 May cause drowsiness or dizziness.

EUH066 Repeated exposure may cause skin dryness or cracking.

Legend:

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- ATE: Acute Toxicity Estimate
- CAS: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE: Identifier in ESIS (European archive of existing substances)
- CLP: Regulation (EC) 1272/2008
- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: Regulation (EC) 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA: Time-weighted average exposure limit
- TWA STEL: Short-term exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

General bibliography

1. Regulation (EC) 1907/2006 (REACH) of the European Parliament
 2. Regulation (EC) 1272/2008 (CLP) of the European Parliament
 3. Regulation (EU) 2020/878 (II Annex of REACH Regulation)
 4. Regulation (EC) 790/2009 (I Atp. CLP) of the European Parliament
 5. Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament
 6. Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament
 7. Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament
 8. Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament
 9. Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament
 10. Regulation (EU) 2015/1221 (VII Atp. CLP) of the European Parliament
 11. Regulation (EU) 2016/918 (VIII Atp. CLP) of the European Parliament
 12. Regulation (EU) 2016/1179 (IX Atp. CLP)
 13. Regulation (EU) 2017/776 (X Atp. CLP)
 14. Regulation (EU) 2018/669 (XI Atp. CLP)
 15. Regulation (EU) 2019/521 (XII Atp. CLP)
 16. Delegated Regulation (UE) 2018/1480 (XIII Atp. CLP)
 17. Regulation (EU) 2019/1148
 18. Delegated Regulation (UE) 2020/217 (XIV Atp. CLP)
 19. Delegated Regulation (UE) 2020/1182 (XV Atp. CLP)
 20. Delegated Regulation (UE) 2021/643 (XVI Atp. CLP)
 21. Delegated Regulation (UE) 2021/849 (XVII Atp. CLP)
 22. Delegated Regulation (UE) 2022/692 (XVIII Atp. CLP)
- The Merck Index. - 10th Edition
 - Handling Chemical Safety
 - INRS - Fiche Toxicologique (toxicological sheet)
 - Patty - Industrial Hygiene and Toxicology
 - N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
 - IFA GESTIS website
 - ECHA website
 - Database of SDS models for chemicals - Ministry of Health and ISS (Istituto Superiore di Sanità) - Italy

Note for users:

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

This document must not be regarded as a guarantee on any specific product property.

The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.

Provide appointed staff with adequate training on how to use chemical products.

Calculation methods for classification

Chemical and physical hazards: Product classification derives from criteria established by the CLP Regulation, Annex I, Part 2. The data for evaluation of chemical-physical properties are reported in section 9.

- Health hazards: Product classification is based on calculation methods as per Annex I of CLP, Part 3, unless determined otherwise in Section 11.
Environmental hazards: Product classification is based on calculation methods as per Annex I of CLP, Part 4, unless determined otherwise in Section 12.

The information contained in these sheets is based on the present state of knowledge and current national legislation. It provides guidance on health, safety and environmental aspects and should not be construed as any guarantee of technical performance or suitability for particular applications.