

MATERIAL SAFETY DATA SHEET**SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING****1.1 Product identifiers Article**

no. (manufacturer/supplier): 8091
 Sales designation: CARDIP® Mat 2K HS ClearCoat 8091

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

Relevant identified uses: Elastic 2K acrylic clearcoat with matt finish for the final coating of CARDIP® Aqua+ PPS Pro Clear 5050 for the production of a peelable film coating. The product is intended for professional use.

1.3 Details of the supplier providing the safety data sheet

Manufacturer: Colosol Coatings GmbH Tel.: +49 7066 - 96 59 400
 Buchäckerring 36 E-mail: lab@cardip.org
 74906 Bad Rappenau
 Germany

1.4 Emergency number

Emergency number: 24 hours emergency number (CHEMTREC) Germany: Switzerland: +(41) 435082011
 +(49) 6964 - 3508409 / 0800-1817059 Belgium: +(32) 28083237
 Austria: +(43) 13649237 Luxembourg: +(352) 20202416

SECTION 2: POTENTIAL HAZARDS**2.1 Classification of the substance or mixture****Classification according to Regulation (EC) No 1272/2008 [CLP].**

The mixture is classified as hazardous according to Regulation (EC) No 1272/2008 [CLP].

Flam. Liq. 3 / H226	Flammable liquids	Flammable liquid and vapor.
STOT SE 3 / H336	Specific target organ toxicity (single exposure)	May cause drowsiness and dizziness cause.
Aquatic Chronic 3 / H412	Hazardous to the aquatic environment	Harmful to aquatic organisms, with long-term effect.

2.2 Labeling elements**Labeling according to Regulation (EC) No. 1272/2008 [CLP]**

Hazard pictograms:



SECTION 2: POTENTIAL HAZARDS

Hazard statements:

H226	Flammable liquid and vapor.
H336	May cause drowsiness and dizziness.
H412	Harmful to aquatic organisms, with long lasting effects.

Safety instructions:

P101	If medical advice is needed, have container or label at hand.
P102	Keep out of the reach of children.
P103	Read label before use.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. Do not smoke.
P241	Use explosion-proof electrical equipment.
P261	Avoid inhalation of dust/fume/gas/mist/vapor/aerosol.
P303 + P361 + P353	IF IN CONTACT WITH SKIN (or hair): Remove all contaminated clothing immediately. Wash skin with water [or shower].
P405	Keep under lock and key.
P501	Dispose of contents/container to industrial incinerator.

Hazard-determining components of labeling:

n-Butyl acetate

Supplementary hazard characteristics (EU):

EUH066	Repeated contact may cause brittle or cracked skin.
EUH208	Contains bis(1,2,2,6,6-pentamethyl-4-piperidyl)sebacate; Methyl (1,2,2,6,6-pentamethyl-4-piperidyl) sebacate; 2,3-epoxypropyl neodecanoate. May cause allergic reactions.

2.3 Other hazards:

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, Annex XIII.

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

3.2 Mixtures

Product description / Chemical characterization

Description

Hazardous ingredients

Classification according to Regulation (EC) No 1272/2008 [CLP].

EC no. CAS No. INDEX no.	REACH no. Chemical name Classification // Remark	Wt%
204-658-1 123-86-4 607-025-00-1	01-2119485493-29 n-Butyl acetate Flam. Liq. 3 H226 / STOT SE 3 H336	25 - 50
265-199-0 64742-95-6	01-2119455851-35 Solvent naphtha (petroleum), light aromatic Flam. Liq. 3 H226 / STOT SE 3 H335 / Aquatic Chronic 2 H411 / Asp. Tox. 1 H304 / STOT SE 3 H336	5 - 10
215-535-7 1330-20-7 601-022-00-9	01-2119488216-32 Xylene Acute Tox. 4 H312 / Acute Tox. 4 H332 / Skin Irrit. 2 H315 / Eye Irrit. 2 H319 / STOT SE 3 H335 / STOT RE 2 H373 / Asp. Tox. 1 H304 / Flam. Liq. 3 H226	2,5 - 5
255-437-1 41556-26-7	01-2119491304-40 bis(1,2,2,6,6-pentamethyl-4-piperidyl)sebacate Skin Sens. 1 H317 / Aquatic Acute 1 H400 / Aquatic Chronic 1 H410	0,1 - 1
255-437-1 41556-26-7	01-2119431597-33 2,3-epoxypropyl neodecanoate Skin Sens. 1 H317 / Aquatic Chronic 2 H411 / Muta. 2 H341	0,1 - 1
280-060-4 82919-37-7	Methyl (1,2,2,6,6-pentamethyl-4-piperidyl) sebacate Skin Sens. 1 H317 / Aquatic Acute 1 H400 / Aquatic Chronic 1 H410	0,1 - 1

Additional Notes:

Full text of the classifications: see under section 16

SECTION 4: FIRST AID MEASURES

4.1 Description of the first aid measures

General information:

Seek medical advice if symptoms occur or if in doubt. If unconscious, do not administer by mouth, place in recovery position and seek medical advice.

After inhalation:

Remove victim to fresh air and keep warm and calm. In case of irregular breathing or respiratory arrest, initiate artificial respiration.

After skin contact:

Take off immediately all contaminated clothing. After contact with skin, wash immediately with plenty of soap and water. Do not use solvents or thinners.

After eye contact:

Rinse gently with water for several minutes. Remove any contact lenses if possible. Continue to rinse. Seek medical advice immediately.

After ingestion:

If swallowed, rinse mouth with water (only if victim is conscious). Seek medical advice immediately. Keep victim calm. Do NOT induce vomiting.

4.2 Most important symptoms and effects, both acute and delayed

Seek medical advice if symptoms occur or in case of doubt.

4.3 Indications for immediate medical help or special treatment

No special measures are required.

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing

media Suitable alcohol-resistant foam, carbon dioxide, powder, spray mist, (water) sharp

extinguishing media: water jet

Extinguishing media unsuitable for safety reasons:

5.2 Special hazards arising from the substance or mixture

In case of fire, dense black smoke is produced. Inhalation of hazardous decomposition products may cause serious damage to health.

5.3 Advice for fire fighting

Have breathing apparatus ready. Cool closed containers near the source of the fire with water. Do not allow extinguishing water to reach sewage system, soil or bodies of water.

SECTION 6: MEASURES IN CASE OF ACCIDENTAL RELEASE

6.1 Personal precautions, protective equipment and procedures to be used in case of emergency

Keep away from sources of ignition. Ventilate the affected area. Do not inhale vapors.

6.2 Environmental protection measures

Do not allow to enter drains or bodies of water. In case of pollution of rivers, lakes or sewers, inform the relevant authorities in accordance with local laws.

6.3 Methods and material for retention and cleaning

Contain spilled material with non-combustible absorbent (e.g. sand, earth, vermiculite, diatomaceous earth) and collect for disposal in the designated containers in accordance with local regulations (see section 13). Carry out subsequent cleaning with cleaning agents, do not use solvents.

6.4 Reference to other sections

Observe protective regulations (see section 7 and 8).

SECTION 7: HANDLING AND STORAGE

7.1 Protective measures for safe handling

Instructions for safe handling:

Avoid formation of flammable and explosive vapor concentrations in the air and exceeding the occupational exposure limits. Use material only in locations where open light, fire and other sources of ignition are kept away. Electrical equipment must be protected to the recognized standard. The material may become electrostatically charged. Provide grounding for containers, equipment, pumps, and exhaust systems. Wearing of antistatic clothing including footwear is recommended. Floors must be electrically conductive. Keep away from heat sources, sparks and open flames. Use spark-proof tools. Avoid contact with skin, eyes and clothing. Do not inhale dusts, particles and spray mist when using this preparation. Avoid inhalation of grinding dusts. Do not eat, drink or smoke while working. Personal protective equipment: see section 8. Never empty containers under pressure - no pressure container! Always store in containers of the same material as the original container. Follow legal protection and safety regulations.

Notes on fire and explosion protection:

Vapors are heavier than air. Vapors form explosive mixtures with air.

7.2 Conditions for safe storage taking into account incompatibilities

Requirements for storage rooms and containers:

Storage in accordance with the Ordinance on Industrial Safety and Health. Keep containers tightly closed. Never empty containers under pressure - no pressure vessel! Smoking is prohibited. Unauthorized persons are not allowed to enter. Store containers carefully closed and upright to prevent any leakage. Floors must comply with the "Guidelines for the prevention of ignition hazards due to electrostatic charges (TRBS 2153)".

Storage together instructions:

Keep away from strongly acidic and alkaline materials and oxidizing agents.

Further information on storage conditions:

Follow the instructions on the label. Store in well ventilated and dry rooms between 15 °C and 30 °C. Protect from heat and direct sunlight. Keep container tightly closed. Remove all sources of ignition. Do not smoke. Unauthorized persons are not allowed to enter. Store containers carefully closed in an upright position to prevent any leakage.

Storage class:

3 Flammable liquids

7.3 Specific end uses

Observe the technical data sheet.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTIVE EQUIPMENT

8.1 Parameters to be monitored

Occupational exposure limits:

n-Butyl acetate

INDEX No. 607-025-00-1 / EC No. 204-658-1 / CAS No. 123-86-4

TRGS 900, AGW, long-term value: 300 mg/m³; 62 ppm

TRGS 900, AGW, short-term value: 600 mg/m³; 124 ppm

Xylene

INDEX No. 601-022-00-9 / EC No. 215-535-7 / CAS No. 1330-20-7

TRGS 900, AGW, long-term value: 440 mg/m³; 100 ppm

TRGS 900, AGW, short-term value: 880 mg/m³; 200 ppm

Remark: (May be absorbed through skin.) TRGS 903, BGW,

long-term value: 1.5 mg/L

Remark: Xylene; blood; end of exposure or end of shift

TRGS 903, BGW, long-term value: 2000 mg/L

Remark: Methylhippuric (toluric) acid; urine; end of exposure or end of shift Remark:

Butoxyacetic acid; after hydrolysis:; urine; in case of long-term exposure.

Additional Notes:

Long-term value : Long-term workplace limit

value Short-term value : Short-term

workplace limit value Peak limitation : Peak

limitation

8.2 Exposure controls and monitoring

Ensure good ventilation. This can be achieved by local or room exhaust ventilation. If this is not sufficient to keep the aerosol and solvent vapor concentration below the occupational exposure limits, suitable respiratory protective equipment must be worn.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTIVE EQUIPMENT

8.3 Occupational exposure controls and monitoring

Respiratory Protection:	If the solvent concentration is above the workplace limits, an approved respirator suitable for this purpose must be worn. The wearing time limits according to GefStoffV in conjunction with the rules for the use of respiratory protective equipment (BGR 190) must be observed. Only use respirators with a CE mark including a four-digit test number. Filter A/P2 according to EN 141, EN 143
Hand protection:	For prolonged or repeated handling, use glove material: NBR (nitrile rubber) Glove material thickness 0.7 mm; penetration time (maximum wearing time) 60 min. The instructions and information of the protective glove manufacturer regarding use, storage, maintenance and replacement must be observed. Penetration time of the glove material depending on the strength and duration of the skin exposure. Recommended glove brands DIN EN 374 Protective creams can help to protect exposed areas of the skin. After contact, these should not be applied under any circumstances.
Eye protection:	Wear tight-fitting safety goggles if there is a risk of splashing.
Body protection:	Wearing antistatic clothing made of natural fiber (cotton) or heat-resistant synthetic fiber.
Protective measures:	After contact, clean skin surfaces thoroughly with soap and water or use suitable cleaning agent.

8.4 Environmental exposure controls and monitoring

Do not allow to enter drains or watercourses. See chapter 7. No further measures are required.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties Appearance:

State of aggregation:	Liquid See
Color: Odor:	label.
Odor threshold:	characteristic
pH value at 20 °C: Melting point/Freezing point: Initial boiling point and boiling range:	not applicable n.a. inapplicable
Flash point: Evaporation rate:	124 °C Source: n-butyl acetate
Flammability (solid, gas):	9 °C c.c.
Burning time (s):	inapplicable
Upper/lower flammability or explosion limits:	inapplicable
Lower explosion limit:	
Upper explosion limit:	
Vapor pressure at 20 °C: Vapor density:	1,2 Vol-% 7,5 Vol-% 10.7 mbar inapplicable

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Relative density:

Density at 20 °C: 1.05 g/cm³

°C:

Solubility(ies):

Water solubility (g/L) at 20 °C: insoluble

Partition coefficient n-octanol/water: see section 12

Auto-ignition temperature: 370 °C Source: REDOCRYL HS 181 VOC matt

Decomposition temperature: inapplicable

Viscosity at 20 °C: 160 s 4 mm Method: DIN

Explosive properties: Oxidizing properties: not applicable not applicable

properties: applicable

9.2 Other

information Solids content (%): 52 wt%

Solvent content (%):

content: 47.70 wt%

Organic solvents: 0.00 wt%

Water: < 3 wt% (ADR/RID)

Solvent separation test (%):

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity

There is no information available.

10.2 Chemical stability

Stable when applying the recommended regulations for storage and handling. For further information on proper storage: see section 7.

10.3 Possibility of hazardous reactions

Keep away from strong acids, strong bases and strong oxidizing agents to avoid exothermic reactions.

10.4 Conditions to avoid

Hazardous decomposition products may be formed at high temperatures.

10.5 Incompatible materials

There is no information available.

10.6 Hazardous decomposition products

Hazardous decomposition products may be formed at high temperatures, e.g.: Carbon dioxide, carbon monoxide, smoke, nitrogen oxides.

SECTION 11: TOXICOLOGICAL INFORMATION

CARDIP® MATTE 2K HS CLEARCOAT 8091



SAFETY DATA SHEET - acc. to Regulation (EC) No 1907 | MATERIAL SAFETY DATA SHEET - acc. 1907/2006/EC, Art. 31

Classification according to Regulation (EC) No 1272/2008 [CLP] There is no data available on the preparation itself.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity, calculated:	ATEmix calculated, dermal: > 5000 mg/kg ATEmix calculated, inhalation (vapors): > 20 mg/l
Acute toxicity: Skin	n-Butyl acetate oral, LD50, rat: 14000 mg/kg
corrosion/irritation; Serious eye damage/irritation:	Based on available data, the classification criteria are not met.
Respiratory/skin sensitization:	Based on available data, the classification criteria are not met.
CMR effects (carcinogenic, mutagenic and toxic to reproduction)	Based on available data, the classification criteria are not met.
Specific Target Organ Toxicity: Experiences from the field or in humans:	Based on available data, the classification criteria are not met. Other observations: Inhalation of solvent contents above the AGW value may cause damage to health, such as irritation of mucous membranes and respiratory organs, damage to liver, kidneys and central nervous system. Signs are: Headache, dizziness, fatigue, muscle weakness, drowsiness, in severe cases: Unconsciousness. Solvents may cause some of the above effects by skin absorption. Prolonged and repeated contact with the product leads to loss of fat from the skin and may cause non-allergic contact skin damage (contact dermatitis) and/or harmful substance absorption. Splashes may cause irritation to the eye and reversible damage.
Summary evaluation of CMR properties:	The ingredients of this mixture do not meet the criteria for CMR categories 1A or 1B according to CLP.
Remark:	There is no information about the preparation itself.

SECTION 12: ENVIRONMENTAL DISCLOSURES

Overall Assessment:	Classification according to Regulation (EC) No 1272/2008 [CLP]. No information is available on the preparation itself. Do not allow to enter drains or water courses.
12.1 Toxicity	Toxicological data are not available.
Long term ecotoxicity	Toxicological data are not available.
12.2 Persistence and degradability	There is no information available.
12.3 Bioaccumulative potential Bioconcentration factor (BCF)	There is no information available. No information is available.
12.4 Mobility in soil	There is no information available.
12.5 Results of PBT and vPvB assessment	The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, Annex XIII.

There is no information available.

12.6 Other adverse effects

SECTION 13: NOTES ON DISPOSAL

13.1 Waste treatment procedures

Proper disposal / product

Recommendation

Do not allow to enter drains or bodies of water. Waste and containers must be disposed of in a safe way. Disposal according to Directive 2008/98/EC on waste and hazardous waste.

Proposal list for waste codes/waste designations according to EAKV

080111	Waste paint and varnish containing organic solvents or other hazardous substances
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Packing

recommendation

Non-contaminated and completely empty packaging can be recycled. Containers that are not properly emptied are hazardous waste.

SECTION 14: TRANSPORT INFORMATION

14.1 UN number:

UN 1263

14.2 UN proper shipping name:

Land transport (ADR/RID):	COLOR
Sea transport (IMDG):	PAINT
Air transport (ICAO-TI / IATA-DGR):	Paint

14.3 Transport hazard classes:

Land transport (ADR/RID):	no good of class 3 according to 2.2.3.1.5 ADR for containers > 450 l applies: class 3
Sea transport (IMDG): for containers < 30 liters:	3 Transport in accordance with 2.3.2.5 of the IMDG Code
Air transport (ICAO-TI / IATA-DGR):	3

14.4 Packing group

II



14.5 Environmental hazards

Land transport (ADR/RID):	inapplicable
Marine pollutant:	inapplicable

14.6 Special precautions for the user

Always transport in closed, upright and safe containers. Ensure that persons transporting the product know what to do in the event of an accident or spill.

Information for safe handling: see sections 6 - 8

SECTION 14: TRANSPORT INFORMATION

Further information

Land transport

(ADR/RID)

Tunnel restriction code	D/E
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Sea transport (IMDG)

EmS no.	F-E, S-E
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Air transport (ICAO-TI / IATA-DGR)

14.7 Bulk transport according to Annex II of the MARPOL Convention and according to the IBC Code inapplicable

SECTION 15: LEGAL PROVISIONS

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

Directive 2010/75/EU on industrial emissions: VOC value (in g/L): 458

Directive 2004/42/EC on emission limits of VOCs from paints and varnishes: VOC product category: (Cat. B/e) ; VOC limit: 840 g/l Maximum VOC content of the ready-to-use product (g/L): 558

National regulations

Employment Restriction Notices: Observe employment restrictions according to the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.

Water hazard class (WGK): Observe employment restrictions according to the Youth Employment Protection Act (94/33/EC). 2

Ordinance on Industrial Safety and Health (BetrSichV): Flammable liquid and vapor.

Technical Instructions on Air Quality (TA-Luft)

TA-Luft (2002) Chapter 5.2.5 Organic substances Class II: In total, the following values in the exhaust gas
Mass flow : 0,50 kg/h
or

Mass concentration : 0.10 g/m³
must not be exceeded. VOC

Switzerland in %: 47,70

Other regulations, restrictions and prohibitions

SECTION 15: LEGAL PROVISIONS

15.2 Chemical safety assessment

A Chemical Safety Assessment has been carried out for the following substances in this preparation:

EC no. CAS No.	Chemical name	REACH no.
204-658-1 123-86-4	n-Butyl acetate	01-2119485493-29
265-199-0 64742-95-6	Solvent naphtha (petroleum), light aromatic	01-2119455851-35
215-535-7 1330-20-7	Xylene	01-2119488216-32
255-437-1 41556-26-7	bis(1,2,2,6,6-pentamethyl-4-piperidyl)sebacate	01-2119491304-40
247-979-2 26761-45-5	2,3-epoxypropyl neodecanoate	01-2119431597-33

SECTION 16: OTHER DISCLOSURES

Full text of the classification from section 3:

Flam. Liq. 3 / H226	Flammable liquids	Flammable liquid and vapor.
STOT SE 3 / H336	Specific target organ toxicity (single exposure)	May cause drowsiness and dizziness.
STOT SE 3 / H335	Specific target organ toxicity (single exposure)	May irritate the respiratory tract.
Aquatic Chronic 2 / H411	Hazardous to the aquatic environment	Toxic to aquatic organisms, with long lasting effects.
Asp. Tox. 1 / H304	Aspiration hazard	May be fatal if swallowed and enters airways.
Acute Tox. 4 / H312	Acute toxicity (dermal)	Harmful in contact with skin.
Acute Tox. 4 / H332	Acute toxicity (inhalation)	Harmful by inhalation.
Skin Irrit. 2 / H315	Etching/irritation of the skin	Causes skin irritation.
Eye Irrit. 2 / H319	Serious eye damage/irritation	Causes severe eye irritation.
STOT RE 2 / H373	Specific target organ toxicity (repeated exposure)	May cause damage to organs (specify all organs affected, if known) through prolonged or repeated exposure (specify route of exposure if there is conclusive evidence that no other route of exposure presents this hazard).
Skin Sens. 1 / H317	Sensitization of respiratory tract or skin	May cause allergic skin reactions.
Aquatic Acute 1 / H400	Hazardous to the aquatic environment	Very toxic to aquatic organisms.
Aquatic Chronic 1 / H410	Hazardous to the aquatic environment	Very toxic to aquatic life with long lasting effects.
Muta. 2 / H341	Germ cell mutagenicity	May cause suspected genetic defects (specify route of exposure if there is conclusive evidence that no other route of exposure presents this hazard).

SECTION 16: OTHER DISCLOSURES

Abbreviations and acronyms

ADR	Accord européen relatif au transport international des marchandises dangereuses par route (European Agreement concerning the International Carriage of Dangerous Goods by Road). Street)
AGW	Occupational Exposure Limit Value
CAS	Chemicals Abstract Service
CLP	Classification, Labeling and Packaging
CMR	Carcinogenic, Mutagenic and Reprotoxic
DNEL	Derived No-Effect Level (derived no-effect concentration)
IATA-DGR	International Air Transport Association - Dangerous Goods Regulations
ICAO-TI	International Civil Aviation Organization Technical Instructions for the Safe Transport of Dangerous Goods by Air.
IMDG code	International Maritime Code for Dangerous Goods (International Code for the Carriage of Dangerous Goods by Sea Vessels)
PBT	persistent, bioaccumulative, toxic (persistent, bioaccumulative, toxic)
PNEC	Predicted No Effect Concentration
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
RID	Règlement concernant le transport international ferroviaire de marchandises Dangereuses (Regulations concerning the international carriage of dangerous goods by rail).
UN	United Nations (United Nations)
LC	Lethal Concentration
LD	Lethal Dose
VOC	Volatile Organic Compounds (VOCs)
vPvB	very persistent and very bioaccumulative

16.1 Waiver of rights

This leaflet is based on intensive development work and many years of practical experience. The content does not express a contractual legal relationship but serves as a guide.

No warranty is given for correctness and completeness. The supplier is not liable for any damage caused by the use of or contact with the product. The processor/buyer is not released from checking the product for suitability for the intended application. In addition, our ABG apply.

Further information:

Classification according to Regulation (EC) No 1272/2008 [CLP].

The information in this safety data sheet corresponds to our current knowledge as well as to national and EU regulations. The product must not be used for any purpose other than that specified in chapter 1 without written permission. It is always the responsibility of the user to take all necessary measures to comply with the requirements laid down in local rules and laws. The information in this safety data sheet describes the safety requirements of our product and does not represent any assurance of product properties.