| MATERIAL SAFETY DATA SHEET

SECTION 1: IDENTIFICATION OF THE SUBSTANCE OR MIXTURE AND OF THE COMPANY

1.1 Product identifiers Item

No. (manufacturer/supplier): 5070

Trade name: CARDIP® Pure Black Tint 5070

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

Relevant identified uses: Pigment concentrate for CARDIP 1K removable special water-based coating. The product is intended for industrial use.

1.3 Details of the supplier providing the safety data sheet

Supplier

Colosol Coatings GmbH
Buchäckerring 36
74906 Bad Rappenau
Germany

Tel.:
Email: lab@cardip.org

1.4 Emergency number: Germany: +49 (0) 7066 - 9659 - 400

SECTION 2: POSSIBLE HAZARDS

2.1 Classification of the substance or mixture

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

Skin Irrit. 2;
H315 Eye Irrit. 2;
H319

2.2 Label elements

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

Hazard statements:
H315: Causes skin irritation.
H319: Causes serious eye irritation.

Hazard statements (EU): EUH208: Contains 1,2-benzisothiazol-3(2H)-one, reaction mass of: 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1), 2-methyl-2H-isothiazol-3-one. May cause allergic reactions.

Precautionary statements:
P264: Wash thoroughly after use.
P280: Wear protective gloves/protective clothing/eye protection.
P302+P352: IF ON SKIN: Wash with plenty of 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.
P362+P364: Take off contaminated clothing and wash before reuse.

2.3 Other hazards: None identified

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substances: Not applicable.

3.2 Mixture

Hazardous ingredients

No	Name of substance		Additional information	
	CAS / EC / Index / REACH No.	Classification (EC) 1272/2008 (CLP)	Concentration	%
1	Potassium hydroxide			
	1310-58-3 215-181-3 019-002-00-8 01-2119487136-33	Acute Tox. 4; H302 Skin Corr. 1A; H314 Met. Corr. 1; H290 Eye Dam. 1; H318	< 1	% by weight
2	Bronopol		See footnote (1)	
	52-51-7 200-143-0 603-085-00-8 -	Acute Tox. 4*; H302 Acute Tox. 4*; H312 Aquatic Acute 1; H400 Eye Dam. 1; H318 Skin Irrit. 2; H315 STOT SE 3; H335 Aquatic Chronic 1; H410	< 0.10	% by weight
3	1,2-Benzisothiazol-3(2H)-one		See footnote (1)	
	2634-33-5 220-120-9 613-088-00-6 -	Acute Tox. 4*; H302 Eye Dam. 1; H318 Skin Irrit. 2; H315 Skin Sens. 1; H317 Acute Tox. 2; H330 Aquatic Acute 1; H400 Aquatic Chronic 2; H411	< 0.05	% by weight
4	3-iodo-2-propynyl butylcarbamate			
	55406-53-6 259-627-5 616-212-00-7 -	Acute Tox. 3; H331 Acute Tox. 4; H302 Aquatic Acute 1; H400 Aquatic Chronic 1; H410 Eye Dam. 1; H318 Skin Sens. 1; H317 STOT RE 1; H372	< 0.10	% by weight
5	Reaction mass of: 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)			
	55965-84-9 - 613-167-00-5 -	Acute Tox. 2; H310 Acute Tox. 2; H330 Acute Tox. 3; H301 Aquatic Acute 1; H400 Aquatic Chronic 1; H410 EUH071 Eye Dam. 1; H318 Skin Corr. 1C; H314 Skin Sens. 1A; H317	< 0.0015	% by weight
6	2-Methyl-2H-isothiazol-3-on			
	2682-20-4 220-239-6 613-326-00-9 -	Acute Tox. 2; H330 Acute Tox. 3; H301 Acute Tox. 3; H311 Aquatic Acute 1; H400 Aquatic Chronic 1; H410 EUH071 Eye Dam. 1; H318 Skin Corr. 1B; H314 Skin Sens. 1A; H317	< 0.0015	% by weight

Full text of H and EUH statements: see Section 16

(*,**,***,****) For an explanation, see CLP Regulation 1272/2008, Annex VI, 1.2

(1) The substance has been classified in accordance with Regulation 1272/2008 (CLP), Article 4 (3), second paragraph, deviating from/supplementing the classification in Annex VI.

No	Note	Specific concentration limits	M-factor (acute)	M-factor (chronic)
1	-	Skin Irrit. 2; H315: C>= 0.5% Eye Irrit. 2; H319: C>= 0.5% Skin Corr. 1B; H314: C>= 2% Skin Corr. 1A; H314: C>= 5%	-	-
2	-	-	M= e 10	-
3	-	Skin Sens. 1; H317: C>= 0.05%	-	-
4	-	-	M= 10	M= e 1
5	B	Skin Sens. 1A; H317: C>= 0.0015% Eye Irrit. 2; H319: C>= 0.06% Skin Irrit. 2; H315: C>= 0.06% Skin Corr. 1C; H314: C>= 0.6% Eye Dam. 1; H318: C>= 0.6%	M= 100	M= 100
6	-	Skin Sens. 1A; H317: C>= 0.0015%	M= e 10	M= e 1

Full text of the comments: See section 16, "Comments on the identification, classification, and labeling of substances (EC) No. 1272/2008, Annex VI."

No	Route of exposure, target organ, specific effect
1	H372 -; larynx;

Estimated values Acute toxicity (ATE)			
No	oral	dermal	inhalation
1	333 mg/kg body weight		
2	305 mg/kg body weight	1600 mg/kg body weight	
3	499 mg/kg body weight		

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures

General If symptoms persist, consult a physician. Immediately remove contaminated clothing and shoes and clean thoroughly before reuse. If there is a risk of unconsciousness, place in a stable side position and transport.

After inhalation: Move the exposed person to fresh air if harmful effects are observed. Wash with soap and water. If skin

After skin contact: irritation occurs: Seek medical advice/attention.

After eye contact: Material that comes into contact with the eyes must be washed out immediately with water. Remove contact lenses if possible without difficulty.

After swallowing: Treat symptoms. Seek medical attention.

4.2 Most important symptoms and effects, both acute and delayed

Your data is available.

4.3 Indications for immediate medical attention or special treatment

Hazards: No data available. Treat

Treatment: symptomatically.

SECTION 5: FIRE-FIGHTING MEASURES

General fire hazards: No information on unusual fire or explosion hazards.

5.1 Extinguishing media

Suitable extinguishing media: Carbon dioxide, powder, and foam extinguishing agents Full water jet

Extinguishing media which must not be used for safety reasons:

5.2 Special hazards arising from the substance or mixture

In case of fire, the following may be released: Carbon dioxide (CO2); carbon monoxide (CO); nitrogen oxides (NOx).

5.3 Firefighting instructions

Wear fully protective firefighting clothing, including self-contained breathing apparatus with full face mask, effective even in positive pressure, as well as coat, trousers, gloves, and shoes.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment, and emergency procedures

Ventilate closed or poorly ventilated rooms where the product has leaked. Personal protective equipment must be worn; see section "Exposure control/protective equipment" for recommendations.

6.2. Environmental precautions

Avoid release to the environment. Do not contaminate the water supply or sewage system. In case of large spills, always notify the environmental protection officer. Avoid further leakage or spillage if this can be done without risk.

6.3 Methods and material for containment and cleaning

Contain larger quantities of spilled material at a safe distance and dispose of later. Collect the free liquid for recycling and/or disposal. The remains of a liquid can be absorbed with a non-reactive material. Wash the area with water and soap. The spilled liquid and the dried film are slippery. Use caution to avoid falls.

6.4 Reference to other sections

See sections 8 and 13 for further information.

SECTION 7: HANDLING AND STORAGE

7.1 Protective measures for safe handling

Observe recognized industrial hygiene measures. Ensure adequate ventilation. Wear suitable personal protective equipment.

Avoid contact with eyes and prolonged or repeated contact with skin. Do not breathe mist or vapors. Do not eat, drink, or smoke while working. Stir well before use. Keep containers closed when not in use. Contact with air should be kept to a minimum to reduce contamination by mold, fungi, or other organisms that can cause decomposition or spoilage. Wash thoroughly after handling.

Maximum temperature for handling the material: 25 °C

7.2 Conditions for safe storage, taking into account incompatibilities

Store away from incompatible materials. See Section 10 for incompatible materials. Protect from freezing. Do not store in open, unlabeled, or mislabeled containers.

Maximum storage	35 °C
temperature: TRGS 510 Storage	10-13: Other flammable and non-flammable liquids and solids not assigned to LGK 1-8.
instructions:	

7.3. Specific end uses

No further relevant information available.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Additional information on the design of technical installations: No further information, see Section 7.

8.1 Parameters to be monitored

Occupational exposure limits

No	Name of substance		CAS		EC No.	
1	2,2'-(Ethylenedioxy)diethanol		112-27-6		203-953-2	
	TRGS 900					
	2,2'-(Ethylenedioxy)diethanol					
	Inhalable fraction Sum of vapour and aerosols					
	Value		100	mg/m		
	Peak limit Remarks		2(II) Y			
5	3-iodo-2-propynyl butylcarbamate		55406-53-6		259-627-5	
	TRGS 900					
	3-iodo-2-propynyl butylcarbamate					
	Value		0.058	mg/m	0.005	ml/m
	Peak limit Skin absorption / Sensitization Comments		2(II) Sh Y			

DNEL, DMEL, and PNEC values

DNEL values (workers)

No	Name of substance			CAS / EC No.	
	Route of exposure	Duration of exposure	Effect	Value	
1	Potassium hydroxide			1310-58-3 215-181-3	
	inhalation	Long-term (chronic)	local	1	mg/m

DNEL values (consumers)

No	Name of substance			CAS / EC No.	
	Route of exposure	Duration of exposure	Effect	Value	
1	Potassium hydroxide			1310-58-3 215-181-3	
	inhalation	Long-term (chronic)	local	1	mg/m

8.2 Limitation and monitoring of exposure

Suitable technical control measures:

Only process the product in a well-ventilated area. Ensure adequate ventilation so that exposure limits are not exceeded. A mechanical ventilation system or local exhaust ventilation system may be required.

Individual protective measures, such as personal protective equipment

General information:

Please follow the guidelines below for recommended personal protective equipment (PPE) and refer to the relevant EN standard if necessary. Use the required personal protective equipment.

Respiratory protection:

Ensure compliance with occupational exposure limits and/or other limits.
For short-term or low exposure, use a breathing filter device; for intensive or prolonged exposure, use a self-contained breathing apparatus.
Use respiratory protection if ventilation is inadequate.
Filter A/P2

Hand protection:

Preventive skin protection through the use of skin protection agents is recommended. To avoid skin problems, reduce the wearing of gloves to the minimum necessary. Check the gloves for leaks before each use. The glove material must be impermeable and resistant to the product/substance/preparation. Select glove material taking into account breakthrough times, permeation rates, and degradation.

Glove material:

DIN EN 374
Butyl rubber Nitrile
rubber PVA gloves
Recommended material thickness:≥ 0.7 mm
The selection of a suitable glove depends not only on the material, but also on other quality characteristics and varies from manufacturer to manufacturer. Since the product is a preparation of several substances, the resistance of glove materials cannot be predicted in advance and must therefore be checked before use.
Penetration time of the glove material Permeation value: Level≤ 6 (≥ 480 min) The exact breakthrough time must be obtained from the protective glove manufacturer and observed.

Eye protection:

Tight-fitting safety goggles in accordance with DIN EN 166

Body protection:

Wear protective clothing.
To minimize physical effects, it is necessary to wear chemically resistant PPE/overalls.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties Appearance:

Physical state:	Liquid Black,
Color:	slightly
Odor: Odor threshold:	No data available. 7-9
pH value at 20 °C: Melting	No data available.
point/freezing point: Initial boiling	> 100°C (estimated value).
point and boiling range: Flash	> 105°C (estimated value).
point:	No data available.
Flammability (solid, gaseous):	< 1 n-Butyl acetate= e 1
Evaporation rate: Decomposition	No data available. No data
temperature: Auto-ignition	available.
temperature:	
Explosive properties:	No data available.
Upper/lower flammability or explosion limits:	
Lower explosion limit:	No data available. No data
Upper explosion limit:	available. No data
Vapor pressure at 20 °C:	available.
Relative density:	Approx. 1.100 g/cm3
Vapor density:	No data available. No data
Solubility in / miscibility with	available.
water:	
Viscosity:	No data available. No data
Explosive properties:	available. No data
Oxidizing properties:	available. No data
Volatile organic compound (VOC)	available.
content:	

9.2 Other

No data available.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity

No dangerous reactions are expected when used as intended.

10.2 Chemical stability

The material is stable under normal conditions.

10.3 Possibility of hazardous reactions

No dangerous reactions are expected when used as intended.

10.4 Conditions to avoid

Contact with incompatible substances.

10.5 Incompatible materials

Oxidizing agents

10.6. Hazardous decomposition products

No hazardous decomposition products known.

SECTION 11: TOXICOLOGICAL INFORMATION

Information on likely routes of exposure: No data available.

11.1 Information on toxicological effects

Acute toxicity: Based on available data, the classification criteria are not met.

Ingestion: May irritate the digestive tract.
ATEmix (estimated acute toxicity of the mixture)> 10,000 mg/kg. Not

Skin contact: classified for acute toxicity based on available data.

Inhalation: Excessive exposure to vapors or mist may cause dizziness, headache, nausea, and/or flu-like symptoms. People with sensitive respiratory systems (e.g., asthmatics) may react to the vapors. Not classified for acute toxicity based on available data.

Skin corrosion/irritation: Prolonged or repeated skin contact may cause irritation. Existing skin conditions may be aggravated by prolonged or repeated contact. Remarks: Not classified as a primary skin irritant.

Primary irritant effect:

Skin corrosion/irritation; Serious eye damage/irritation: Remarks:
Not classified as a primary eye irritant.

SECTION 11: TOXICOLOGICAL INFORMATION

Primary irritation:

Respiratory/skin sensitization: No data available.

Other effects: People with sensitive respiratory tracts (e.g., asthmatics) may react to the vapors.

CMR effects (carcinogenic, mutagenic, and reproductive toxicity):

Germ cell mutagenicity: No data available. No

Carcinogenicity: data available. No data

Reproductive toxicity: available.

Specific target organ toxicity after single exposure: No data available.

Specific target organ toxicity after repeated exposure: No data available.

Aspiration hazard No data available.

SECTION 12: ENVIRONMENTAL INFORMATION

12.1 Toxicity Aquatic toxicity: No data available.

12.2 Persistence and degradability No data available. No

12.3 Bioaccumulation potential data available.

12.4 Mobility in soil No data available.

12.5 Other adverse effects No data available.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods Proper disposal / product recommendation

Handling, storage, transport, and disposal must be carried out in accordance with the applicable federal, state, provincial, and local regulations. Since empty containers may contain product residues, follow the warning label even after the container has been emptied.

Uncleaned packaging:
Recommendation The container packaging may present hazards. Dispose of in accordance with official regulations.

SECTION 14: TRANSPORT INFORMATION

Land transport (ADR/RID):	Not a hazardous material.
Sea transport (IMDG):	Not dangerous goods.
Air transport (ICAO-TI / IATA-DGR):	Not classified as dangerous goods.

14.4 Packaging group No dangerous goods. APEO FREE! No dangerous goods. APEO FREE!

14.5. Environmental hazards None known.

14.6 Bulk cargo transport in accordance with Annex II of the MARPOL Convention and in accordance with the IBC Code

None known.

SECTION 15: LEGAL REGULATIONS

15.1. Safety, health and environmental regulations/specific legal provisions for the substance or mixture EU regulations

Route of absorption, target organ, specific effects

According to the available data and/or information provided by upstream suppliers, the product does not contain any substance(s) that is/are subject to authorization in accordance with REACH Regulation (EC) 1907/2006 Annex XIV.

REACH Candidate List of Substances of Very High Concern (SVHC) for the Authorization Process

According to the available data and/or information provided by upstream suppliers, the product does not contain any substance(s) that is/are considered for inclusion in Annex XIV (list of substances subject to authorization) in accordance with Article 57 in conjunction with Article 59 of the REACH Regulation (EC) 1907/2006.

Regulation (EC) No. 1907/2006 (REACH) Annex XVII: Restrictions on the manufacture, placing on the market, and use of certain hazardous substances, mixtures, and articles

The product is subject to REACH Regulation (EC) 1907/2006 Annex XVII.	No.

The product contains the following substance(s) that is/are subject to REACH Regulation (EC) 1907/2006 Annex XVII.

No	Name of substance	CAS	EC No.	No
1	1,2-Benzisothiazol-3(2H)-one	2634-33-5	220-120-9	75
2		2682-20-4	220-239-6	75
3	3-Iodopropyl butylcarbamate	55406-53-6	259-627-5	75
4	Bronopol	52-51-7	200-143-0	75
5	Potassium hydroxide	1310-58-3	215-181-3	75
6	Reaction mass of: 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)	55965-84-9	-	75

Directive 2012/18/EU on the control of major accident hazards involving dangerous substances

The product is not subject to Annex I, Part 1 or 2

National regulations

National chemical inventories

USA (TSCA)	Components listed	PICCS (Philippines)	Components listed
DSL/NDSL (Canada)	Components listed (DSL)	NZIoC (New Zealand)	Components listed
ECL (Korea)	Components listed	Taiwan (TCSI)	Components listed
AICS (Australia)	Components listed		

SECTION 15: REGULATORY INFORMATION

15.1. Safety, health, and environmental regulations/specific legal provisions for the substance or mixture

Water hazard class

Class 1

Source Classification according to AwSV (Ordinance on Installations for Handling Substances Hazardous to Water).

National regulations Water hazard class (WGK): WGK 1: slightly hazardous to water.

15.2 Substance safety assessment A substance safety assessment has not been carried out.

SECTION 16: OTHER INFORMATION

The information is based on our current state of knowledge, but does not constitute a guarantee of product properties and does not establish a contractual legal relationship. The information in this safety data sheet complies with national and EU legislation. The product must not be used for any purpose other than that specified in Chapter 1 without written approval. The user is responsible for complying with all necessary legal requirements.

16.1 Relevant phrases

Full text of the H and EUH phrases listed in sections 2 and 3 (unless already listed in these sections).

EUH071 Corrosive to the respiratory tract.
H290 May be corrosive to metals.
H301 Toxic if swallowed.
H302 Harmful if swallowed.
H310 Danger to life if in contact with skin.
H311 Toxic in contact with skin.
H312 Harmful in contact with skin.
H314 Causes severe skin burns and serious eye damage. H317 May cause allergic skin reactions.
H318 Causes serious eye damage.
H330 Dangerous if if if if if if if if if if if if if if if if if if if if if if if if if if if
H331 Toxic if inhaled.
H335 May cause respiratory irritation.
H372 Causes damage to organs through prolonged or repeated exposure.
H400 Very toxic to aquatic organisms.
H410 Very toxic to aquatic life with long-lasting effects. H411 Toxic to aquatic life with long-lasting effects.

SECTION 16: OTHER INFORMATION

16.2 Legal disclaimer / exclusion of liability

This information sheet is based on intensive development work and many years of practical experience. Its contents do not constitute a contractual legal relationship but serve as a guideline.

No guarantee is given for its accuracy or completeness. The supplier is not liable for any damage resulting from the use of or contact with the product. The processor/purchaser is not released from the obligation to check the product for suitability for the intended application. In addition, our General Terms and Conditions apply.

16.3 Abbreviations and acronyms

ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road (European Agreement concerning the International Carriage of Dangerous Goods by Road)
CAS	Chemicals Abstract Service
EINECS	European Inventory of Existing Commercial Chemical Substances
ELINCS	European List of Notified Chemical Substances
GefStoffV	Ordinance on Hazardous Substances (Germany)
GHS	Globally Harmonized System of Classification and Labelling of Chemicals
IATA	International Air Transport Association

16.3 Abbreviations and acronyms

ICAO	International Civil Aviation Organization
IMDG	International Maritime Code for Dangerous Goods
RID	International Regulations Concerning the Transport of Dangerous Goods by Rail
VOCV	Swiss Ordinance on Volatile Organic Compounds
VOC	Volatile Organic Compounds (USA, EU)

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

The information in this safety data sheet corresponds to our current state of knowledge and 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 regulations and laws. The information in this safety data sheet describes the safety requirements of our product and does not constitute a guarantee of product properties.