Safety Data Sheet according to Regulation (EC) 'No. 2020/878

SECTION 1: Identification of the Substance/Mixture and of the Company/Undertaking

1.1 Product Identifier

Product Name: J330B

Revision Date: 06/03/2025

Supersedes Date: Armorlast I-Part B — New SDS

Version Number: 1

UFI Code: 4YDX-D2AA-300K-4ERQ

Contain nanoform: No

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

Base component of 2 components coating - Industrial use. Please see Technical Data Sheet. Advised against: others than recommended

Product to be mixed with: ARMORLAST I (2K) - A

Mixing ratio by volume Part A/ Part B: 15 / 0,35 v/v

1.3 Details of the supplier of the safety data sheet

Supplier:

Carboline Italia, S.p.a.
Via Margherita Viganò De Vizzi, 77
20092 Cinisello Balsamo (MI)
Italy

Regulatory / Technical Information:
+32 67493710 Nivelles, Belgium
+39 0294759236 Cinisello Balsamo, Italy

regulatoryeurope@carboline.com

1.4 Emergency telephone number:

CHEMTREC +1 703 5273887 (Outside US)
112 (24/7)
Croatia +3851 2348 342 (24/7 in Croatian and English)
Iceland 112 (24/7)
Malta 112 (24/7)

SECTION 2: Hazards Identification

2.1 Classification of the substance or mixture

Classification according to Classification, Labeling & Packaging Regulation (EC) 1272/2008

HAZARD STATEMENTS

Flammable Liquid, category 3	H226

Skin Irritation, category 2	H315
Serious Eye Damage, category 1	H318
STOT, single exposure, category 3, NE	H336

2.2 Label elements

Symbol(s) of Product

Signal Word

Danger

Named Chemicals on Label

1-methoxypropan-2-ol, tetrabutyl titanate

HAZARD STATEMENTS

Flammable Liquid, category 3	H226	Flammable liquid and vapour.
Skin Irritation, category 2	H315	Causes skin irritation.
Serious Eye Damage, category 1	H318	Causes serious eye damage.
STOT, single exposure, category 3, NE	H336	May cause drowsiness or dizziness.

PRECAUTION PHRASES

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P264	Wash hands thoroughly after handling.
P280	Wear protective gloves/protective clothing/eye protection/ face protection.
P302+352	IF ON SKIN: Wash with plenty of soap and water.
P305+351+338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do so. Continue rinsing.

2.3 Other hazards

No Information

Results of PBT and vPvB assessment:

The product does not meet the criteria for PBT/VPvB in accordance with Annex XIII.

Endocrine disrupting properties - Toxicity

Name According to EEC	CAS-No.

Based on the available data, the product does not contain substances identified as having endocrine disrupting properties according to Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 in concentration of 0,1% or higher.

Endocrine disrupting properties - Ecotoxicity

Name According to EEC	CAS-No.

Based on the available data, the product does not contain substances identified as having endocrine disrupting properties according to Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 in concentration of 0,1% or higher.

SECTION 3: Composition/Information On Ingredients

3.1 Substances

Not applicable

3.2 Mixtures

Hazardous ingredients

Name According to EEC EINEC No. CAS-No. REACH Reg No.	%	Classifications	SCL Value: ATE Value: M-Factor:	
1-methoxypropan-2-ol 203-539-1 107-98-2 01-2119457435-35 603-064-00-3	75-100	H226-336 Flam. Liq. 3, STOT SE 3 NE	SCL Value: ATE Value: M-Factor: (acute) M-Factor: (chronic)	- - - -
tetrabutyl titanate 227-006-8 5593-70-4 01-2119967423-33	10 - <25	H226-315-318-335-336 Eye Dam. 1, Flam. Liq. 3, Skin Irrit. 2, STOT SE 3 NE, STOT SE 3 RTI	SCL Value: ATE Value: M-Factor: (acute) M-Factor: (chronic)	- - - -

2-methoxypropanol 216-455-5 1589-47-5 No Information	0.1 - <1.0	H226-315-318-335-360D Eye Dam. 1, Flam. Liq. 3, Repr. 1B, Skin Irrit. 2, STOT SE 3 RTI	SCL Value: ATE Value: M-Factor: (acute) M-Factor: (chronic)	- - - -

Additional Information: The text for CLP Hazard Statements shown above (if any) is given in Section 16.

SECTION 4: First-aid Measures

4.1 Description of First Aid Measures

GENERAL NOTES: Show this safety data sheet to the doctor in attendance.
AFTER INHALATION: Move to fresh air. Provide fresh air, rest and warmth. Call a physician immediately. Give oxygen or artificial respiration if needed. When risk of unconsciousness, place and transport the victim in secured recovery position.
AFTER SKIN CONTACT: Use a mild soap if available. Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. If skin irritation persists, call a physician. Do not use solvent or thinners to clean skin.
AFTER EYE CONTACT: Immediate medical attention is required. Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses.
AFTER INGESTION: If vomiting occurs spontaneously: Keep head below hips to prevent aspiration of stomach vomit into lungs. Provide fresh air, rest and warmth. Do not induce vomiting. Get immediate medical attention. Never give anything by mouth to an unconscious person.

Self protection of the first aider:

No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

4.2 Most important symptoms and effects, both acute and delayed

Danger of serious damage to health by prolonged exposure. Irritating to respiratory system and skin. Risk of serious damage to the lungs (by aspiration). Vapours may cause drowsiness and dizziness. Causes serious eye damage.

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically. No information available on clinical testing and medical monitoring. Specific toxicological information on substances, if available, can be found in section 11. When symptoms persist or in all cases of doubt seek medical advice.

SECTION 5: Firefighting Measures

5.1 Extinguishing Media:

Carbon Dioxide, Dry Chemical, Foam

FOR SAFETY REASONS NOT TO BE USED: Alcohol, Alcohol based solutions, any other media not listed above. Do not use a solid water stream as it may scatter and spread fire.

5.2 Special hazards arising from the substance or mixture

Heating or fire conditions liberates toxic gas. Flash back possible over considerable distance. As the product contains combustible organic components, fire will produce dense black smoke containing hazardous products of combustion (see section 10). Vapours may form explosive mixtures with air. Solvent vapours are heavier than air and may spread along floors and ignite.

5.3 Advice for firefighters

Fire will produce dense black smoke containing hazardous combustion products (see section 10). In the event of fire, wear self-contained breathing apparatus. Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Keep containers and surroundings cool with water spray.

SECTION 6: Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

6.1.1 For non-emergency personnel

Ensure adequate ventilation. Use personal protective equipment. Remove all sources of ignition.

6.1.2 For emergency responders

See Section 7, 8 and 10 for further information.

6.2 Environmental precautions

Do not allow material to contaminate ground water system. Prevent product from entering drains. Local authorities should be advised if significant spillages cannot be contained.

6.3 Methods and material for containment and cleaning up

Do not let product enter drains. Prevent further leakage or spillage if safe to do so. Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see section 13). Clean with detergents. Avoid solvents.

6.4 Reference to other sections

FURTHER INSTRUCTIONS: Please refer to EU disposal requirements or country specific disposal requirements for this material. See Section 8 and 13 for further information.

SECTION 7: Handling and Storage

7.1 Precautions for safe handling

Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapours). Prevent the creation of flammable or explosive concentrations of vapour in air and avoid vapour concentration higher than the occupational exposure limits. Electrical equipment should be protected to the appropriate standard. Preparation may charge electrostatically**:** always use earthing leads when transferring from one container to another. Use only in area provided with appropriate exhaust ventilation. Provide sufficient air exchange and/or exhaust in work rooms. To avoid ignition of vapours by static electricity discharge, all metal parts of the equipment must be grounded. Wear personal protective equipment. Open drum carefully as content may be under pressure. Do not breathe vapours or spray mist. Use only explosion-proof equipment. Persons with a history of skin sensitisation problems or asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this preparation is being used.
Wash hands before breaks and at the end of workday. When using, do not eat, drink or smoke.

7.2 Conditions for safe storage, including any incompatibilities

CONDITIONS TO AVOID: Avoid heat, sparks, flames and other ignition sources.
STORAGE CONDITIONS: Store in original container. Keep locked up or in an area accessible only to qualified or authorised persons. Keep container closed. Store in a dry, well ventilated place away from sources of heat, ignition and direct sunlight. Store in upright position only. Storage of flammable liquids. Store away from: oxidising materials, acids, and alkalis.

7.3 Specific end use(s)

No specific advice for end use available.

SECTION 8: Exposure Controls/Personal Protection

8.1 Control parameters

Ingredients with Occupational Exposure Limits (EU)

Name	CAS-No.	LTEL ppm	STEL ppm	STEL mg/m3	LTEL mg/m3
1-methoxypropan-2-ol	107-98-2	100	150	568	375
tetrabutyl titanate	5593-70-4				
2-methoxypropanol	1589-47-5				

Name	CAS-No.	OEL Note
1-methoxypropan-2-ol	107-98-2	Sk
tetrabutyl titanate	5593-70-4	
2-methoxypropanol	1589-47-5	

FURTHER ADVICE: Refer to the regulatory exposure limits for the workforce enforced in each country. Some components may not have been classified under the EU CLP Regulation. Annotations: Carc = Capable of causing cancer and/or heritable genetic damage, Sen = Capable of causing occupational asthma, Sk = Can be absorbed through the skin.

Chemical Name:
1-methoxypropan-2-ol

EC No.: 203-539-1

CAS-No.: 107-98-2

DNELs - Derived no effect level

	Workers				Consumers			
Route of Exposure	Acute effect local	Acute effects systemic	Chronic effects local	Chronic effects systemic	Acute effect local	Acute effects systemic	Chronic effects local	Chronic effects systemic
Oral	Not required						3.3 mg/kg	
Inhalation	553.5 mg/m3	553.5 mg/m³		369 mg/m3				43.9 mg/m3
Dermal				183 mg/kg bw/ day				18.1 mg/kg

PNEC's - Predicted no effect concentration

Environmental protection target	PNEC
Fresh water	10 mg/l
Fresh water sediments	100 mg/l
Marine water	1 mg/l
Marine sediments	5.2 mg/kg
Food chain	
Microorganisms in sewage treatment	
soil (agricultural)	5.49 mg/kg
Air	

Chemical Name:
tetrabutyl titanate

EC No.: 227-006-8

CAS-No.: 5593-70-4

DNELs - Derived no effect level

	Workers				Consumers			
Route of Exposure	Acute effect local	Acute effects systemic	Chronic effects local	Chronic effects systemic	Acute effect local	Acute effects systemic	Chronic effects local	Chronic effects systemic
Oral	Not required							3.75 mg/kg bw/ day
Inhalation				127 mg/m³				152 mg/m³
Dermal								37.5 mg/kg bw/ day

PNEC's - Predicted no effect concentration

Environmental protection target	PNEC
Fresh water	80 µg/L
Fresh water sediments	68.7 µg/kg sediment dw
Marine water	8 µg/L
Marine sediments	6.9 µg/kg sediment dw
Food chain	
Microorganisms in sewage treatment	
soil (agricultural)	16.8 µg/kg soil dw
Air	

8.2 Exposure controls

Personal Protection

RESPIRATORY PROTECTION: Wear respiratory protection with combination filter (dust and gas filter, EN 14387:2004 +A1:2008) during spraying operations: Gas filter type A2 (organic substances). Dust filter P3 (for fine dust). When working in confined or poorly ventilated spaces, a battery powered assisted air-fed mask must be used.

EYE PROTECTION: Face-shield. Safety glasses with side-shields conforming to EN 166.

HAND PROTECTION: Take note of the information given by the producer concerning permeability and break through times, and of special workplace conditions (mechanical strain, duration of contact). Be aware that in daily use the durability of a chemical resistant protective glove can be notably shorter than the break through time measured according to EN 374, due to the numerous outside influences (e.g. temperature). Use chemical resistant gloves and lotions and barrier creams to prevent drying of the skin. Protective gloves complying with EN 374: Nitrile rubber. Viton®. Recommended glove material for mixed product: Protective gloves complying with EN 374: Butyl rubber. Nitril rubber.

Body Protection: Long sleeved clothing.
Remove and wash contaminated clothing before re-use.

OTHER PROTECTIVE EQUIPMENT: Ensure that eyewash stations and safety showers are close to the workstation location.

ENGINEERING CONTROLS: Ensure adequate ventilation, especially in confined areas.

SECTION 9: Physical and Chemical Properties

9.1 Information on basic physical and chemical properties

Colour:	Colorless
Physical State	Liquid
Odor	Solvent
Odor threshold	No Information
pH	Not determined
Melting point / freezing point (°C)	Not determined
Boiling point or initial boiling point and boiling range (°C)	120 - 200
Flash Point, (°C)	31
Evaporation rate	Not determined
Flammability (solid, gas)	Not measured
Llower and upper explosive limit	Not determined
Vapour Pressure	Not determined
Relative vapour density	Not determined
Density and/or relative density	0.92
Solubility in / Miscibility with water	Not measured
Partition coefficient: n-octanol/water	Not determined
Auto-ignition temperature (°C)	Not determined
Decomposition temperature (°C)	Not determined
Kinematic viscosity	Not determined
Particle characteristics	Not applicable to liquids

9.2 Other information

Specific Gravity (g/cm3) 0,92

SECTION 10: Stability and Reactivity

10.1 Reactivity
No reactivity hazards known under recommended storage and use conditions.

10.2 Chemical stability
Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions
No reactivity hazards known under recommended storage and use conditions.

10.4 Conditions to avoid
Avoid heat, sparks, flames and other ignition sources.

10.5 Incompatible materials
Keep away from strong oxidising agents and strongly acid or alkaline materials.

10.6 Hazardous decomposition products
In case of fire or hot work operations, **hazardous decomposition products** may be formed such as**:** Carbon dioxide (CO2), carbon monoxide (CO), oxides of nitrogen (NOx), aliphatic amines, aldehydes.

SECTION 11: Toxicological information

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

Acute Toxicity:

Oral LD50: No information available.

Inhalation LC50: No information available.

Dermal LD50: No Information

Irritation: Irritating to skin.

Corrosivity: Causes serious eye damage.

Sensitization: No information available.

Repeated dose toxicity: No information available.

Carcinogenicity: No information available.

Mutagenicity: No information available.

Toxicity for reproduction: No information available.

STOT-single exposure: STOT SE 3 NE

STOT-repeated exposure: No information available.

Aspiration hazard: No information available.

If no information is available above under Acute Toxicity then the acute effects of this product have not been tested. Data on individual components are tabulated below:

CAS-No.	Name According to EEC	Oral LD50	Dermal LD50	Vapor LC50	Gas LC50	Dust/Mist LC50
107-98-2	1-methoxypropan-2-ol	4016 mg/kg (oral-rat)	>2000 mg/kg (dermal-rat)	21 mg/l	> 20000 ppm	No information

5593-70-4	tetrabutyl titanate	> 2000 mg/kg (oral, rat)	5300 mg/kg (dermal, rabbit)	20100 mg/l (inhalation, rat)	0.000	0.000
1589-47-5	2-methoxypropanol	5710 mg/kg, oral, rat	No information	No information	No information	No information

Additional Information:

Corrosive - causes irreversible eye damage. Chronic exposure causes drying effect on the skin and eczema. Repeated or prolonged skin contact may cause allergic reactions with susceptible persons. Gas or vapour is harmful on prolonged exposure or in high concentrations. Irritant of eyes and mucous membranes. CNS depressant. Inhalation is the main hazard in industrial use. The solvent vapours can be harmful and cause headaches, nausea, and intoxication. Acts as a defatting agent on skin. Chronic exposure has been associated with various neurotoxic effects including permanent brain damage. Inhalation of vapour or mist can cause headache, nausea, irritation of nose, throat, and lungs.

11.2 Information on other hazards

Endocrine disrupting properties - Toxicity

Name According to EEC **CAS-No.**

Based on the available data, the product does not contain substances identified as having endocrine disrupting properties according to Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 in concentration of 0,1% or higher.

SECTION 12: Ecological Information

12.1 Toxicity:

EC50 48hr (Daphnia): No information

IC50 72hr (Algae): No information

LC50 96hr (fish): No information

12.2 Persistence and degradability: No information

12.3 Bioaccumulative potential: No information

12.4 Mobility in soil: No information

12.5 Results of PBT and vPvB assessment: The product does not meet the criteria for PBT/VPvB in accordance with Annex XIII.

12.6 Endocrine disrupting properties

Endocrine disrupting properties - Ecotoxicity

Name According to EEC **CAS-No.**

Based on the available data, the product does not contain substances identified as having endocrine disrupting properties according to Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 in concentration of 0,1% or higher.

12.7 Other adverse effects: No information

CAS-No.	Name According to EEC	EC50 48hr	IC50 72hr	LC50 96hr
107-98-2	1-methoxypropan-2-ol	>21000 mg/L (Daphnia)	No information	6812 mg/L (Leuciscus idus)
5593-70-4	tetrabutyl titanate	1300 mg/l (EC50, 48h,Daphnia)	No information	1825 mg/l (fish)

SECTION 13: Disposal Considerations

13.1 **WASTE TREATMENT METHODS:** Do not burn, or use a cutting torch on, the empty drum. According to the European Waste Catalogue, Waste Codes are not product specific, but application specific. Empty containers should be taken to an approved waste handling site for recycling or disposal. Dispose of waste material at an approved (hazardous) waste treatment/disposal facility in accordance with applicable local state, and federal regulations. Do not dispose of waste with normal garbage, or to sewer systems.

European Waste Code: No Information
Packaging Waste Code: 150110

SECTION 14: Transport Information

	ADR/RID	ADN	IMDG	IATA
14.1 UN-number or ID number	UN1263	UN1263	UN1263	UN1263
14.2 UN proper shipping name	PAINT	PAINT	PAINT	PAINT
14.3 Transport Hazard Class(es)	3	3	3	3
14.4 Packing Group	III	III	III	III
14.5 Enviromental Hazards	NO	NO	Marine pollutant: NO	NO

14.6 **Special precautions for user** Not applicable
EmS-No.: F-E, S-E

14.7 **Maritime transport in bulk according to IMO intruments** Not applicable

SECTION 15: Regulatory Information

15.1 **Safety, health and environmental regulations/legislation for the substance or mixture:**

National Regulations:

Denmark Product Registration Number: Not available

Danish MAL Code: Not available

Danish MAL Code - Mixture:

	Not available
Sweden Product Registration Number:	Not available
Norway Product Registration Number:	Not available
Germany WGK Class:	Not available
Directive 2004/42/CE:	Ready to use 490 g/L with 10% thinner (subcat j 500 g/L)
Covered by Directive 2012/18/EC (Seveso III):	P5c
Restrictions to product or to substances according to Annex XVII, Regulation (CE) 1907/2006:	Entry 3, 40

Annex XIV, Regulation (CE) 1907/2006 - Authorisation List:

CAS-No.	Name According to EEC
Not Applicable	

SVHC - Substances of very high concern (Candidate List - Art. 59 REACH):

CAS-No.	Name According to EEC
Not Applicable	

15.2 Chemical Safety Assessment:

No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

SECTION 16: Other Information

Text for CLP Hazard Statements shown in Section 3 describing each ingredient:

H226	Flammable liquid and vapour.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H360D	May damage the unborn child.

Reasons for revision

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List of References:

This Safety Data Sheet was compiled with data and information from the following sources:

- The Ariel Regulatory Database provided by the 3E Corporation in Copenhagen, Denmark.
- Joint Research Centre in Ispra, Italy.
- Regulation (EC) 1272/2008 with subsequent amendments.
- Regulation (EC) 1272/2006 with subsequent amendments.
- Commission Regulation (EU) 2020/878
- EU Council Decision 2000/532/EC and its Annex entitled "List of Wastes"
- Safety Data Sheet from raw material supplier
- The classification declared in sec. 2.2 is based on the calculation methods set out in Annex I and Annex II of the CLP Reg. 1272/2008 on the composition of the formula.

Acronym & Abbreviation Key:

CLP	Classification, Labeling & Packaging Regulation
EC	European Commission
EU	European Union
US	United States
CAS	Chemical Abstract Service
EINECS	European Inventory of Existing Chemical Substances
REACH	Registration, Evaluation, Authorization of Chemicals Regulation
GHS	Globally Harmonized System of Classification and Labeling of Chemicals
LTEL	Long term exposure limit
STEL	Short term exposure limit
OEL	Occupational exposure limit
ppm	Parts per million
mg/m3	Milligrams per cubic meter
TLV	Threshold Limit Value
ACGIH	American Conference of Governmental Industrial Hygienists
OSHA	Occupational Safety & Health Administration
PEL	Permissible Exposure Limits
VOC	Volatile organic compounds
g/l	Grams per liter
mg/kg	Milligrams per kilogram
N/A	Not applicable
LD50	Lethal dose at 50%
LC50	Lethal concentration at 50%
EC50	Half maximal effective concentration
IC50	Half maximal inhibitory concentration
PBT	Persistent bioaccumulative toxic chemical
vPvB	Very persistent and very bioaccumulative
EEC	European Economic Community
ADR	International Transport of Dangerous Goods by Road
RID	International Transport of Dangerous Goods by Rail
UN	United Nations
IMDG	International Maritime Dangerous Goods Code
IATA	International Air Transport Association
MARPOL	International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978
IBC	International Bulk Container
RTI	Respiratory Tract Irritation
NE	Narcotic Effects
IMO	International Maritime Organization
Note P:	The classification as a carcinogen or mutagen need not apply; the substance contains less than 0,1 % w/w benzene
Note 10:	The classification as a carcinogen by inhalation applies only to mixtures in powder form containing 1 % or more of titanium dioxide which is in the form of or incorporated in particles with aerodynamic diameter ≤ 10 µm.

For further information, please contact: Technical Services Department

The information on this sheet corresponds to our present knowledge. It is not a specification and it does not guarantee specific properties. The information is intended to provide general guidance as to health and safety based upon our knowledge of the handling, storage, and use of the product. It is not applicable to unusual or non-standard uses of the product or where instructions and recommendations are not followed.