

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



**Construction
Products Group**
Europe



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

1.1 Product Identifier	FLOWSHIELD ESD WHG PART B	Revision Date:	14/02/2023
Product Name:	Flowshield ESD WHG Part B	Supersedes Date:	New SDS

UFI Code: T1CP-R0P3-Q00Q-JDMY
Nanoform: No

1.2 Relevant identified uses of the substance or mixture and uses advised against	Component of multicomponent coatings - Professional use only. Coatings and paints, thinners, paint removers. Manual activities involving hand contact. Widespread use leading to inclusion into/onto article (indoor). Widespread use leading to inclusion into/onto article (outdoor). For use by appropriately trained applicators. Roller application or brushing. Advised against: Home DIY applications. Advised against: Spray application, because of the additional hazards. Advised against: others than recommended
--	---

1.3 Details of the supplier of the safety data sheet

Alteco Technik GmbH
Raiffeisenstrasse 16
D-27239 Twistringen
Germany
Phone: +49(0) 4243 92950
Fax: +49(0) 4243 929589
This telephone number is available during office hours only

Supplier:

Datasheet Produced by: info@alteco-technik.de

1.4 Emergency telephone number:	Chemtrec: 1-800-424-9300 for US +1 703 5273887 (Outside US)
--	--

SECTION 2: Hazards Identification

2.1 Classification of the substance or mixture

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

HAZARD STATEMENTS

Skin Corrosion, category 1B	H314-1B
Skin Sensitizer, category 1	H317
Hazardous to the aquatic environment, Chronic, category 3	H412

2.2 Label elements**Symbol(s) of Product****Signal Word**

Danger

Named Chemicals on Label

Benzyl alcohol, Polyoxypropylene diamine, 2,4,6-Tris(dimethylaminomethyl)phenol, 4,4-Isopropylidendiphenol, oligomeres reaction product with 1-chloro-2,3-epoxypropan and Formaldehyde, oligomeres reaction product with 1-chloro-2,3-epoxypropan, reaction product with 1,3-benzoldimethanamin, polymer

HAZARD STATEMENTS

Skin Corrosion, category 1B	H314-1B	Causes severe skin burns and eye damage.
Skin Sensitizer, category 1	H317	May cause an allergic skin reaction.
Hazardous to the aquatic environment, Chronic, category 3	H412	Harmful to aquatic life with long lasting effects.

PRECAUTION PHRASES

P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P303+361+353	IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304	IF INHALED:
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.
P333+313	If skin irritation or rash occurs: Get medical advice/attention.

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.

No Information

Endocrine disrupting properties - Ecotoxicity

Name According to EEC CAS-No.

No Information

SECTION 3: Composition/Information On Ingredients

3.1 Substances

Not applicable

3.2 Mixtures

Hazardous ingredients

<u>Name According to EEC</u> <u>EINEC No.</u> <u>CAS-No.</u> <u>REACH Reg No.</u>	%	<u>Classifications</u>	SCL Value: ATE Value: M-Factor:
4,4-Isopropylidendiphenol, oligomeres reaction product with 1-chloro-2,3-epoxypropan and Formaldehyde, oligomeres reaction product with 4 200-578-6 No Information	50 - <75	H225-314-317-412 Aquatic Chronic 3, Flam. Liq. 2, Skin Corr. 1B, Skin Sens. 1	SCL Value: - ATE Value: - M-Factor: -
Benzyl alcohol 202-859-9 100-51-6 01-2119492630-38	25 - <50	H302-332 Acute Tox. 4 Inhalation, Acute Tox. 4 Oral	SCL Value: - ATE Value: - M-Factor: -
Polyoxypropylene diamine 9046-10-0 No Information	2.5 - <10	H314-412 Aquatic Chronic 3, Skin Corr. 1B	SCL Value: - ATE Value: - M-Factor: -
2,4,6-Tris(dimethylaminomethyl) phenol 202-013-9 90-72-2 01-2119560597-27	2.5 - <10	H302-314-317 Acute Tox. 4 Oral, Skin Corr. 1B, Skin Sens. 1	SCL Value: - ATE Value: - M-Factor: -

Ethanol 200-578-6 64-17-5 No Information	1.0 - <2.5	H225 Flam. Liq. 2	SCL Value: - ATE Value: - M-Factor: -
---	------------	--------------------------	--

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: When symptoms persist or in all cases of doubt seek medical advice. Show this safety data sheet to the doctor in attendance. Risk of product entering the lungs on vomiting after ingestion. Remove contaminated clothing and shoes.

AFTER INHALATION: Remove person to fresh air. If signs/symptoms continue, get medical attention.

AFTER SKIN CONTACT: Use a mild soap if available. Consult a physician. Do not use solvent or thinners to clean skin. Immediate medical treatment is necessary as untreated wounds from corrosion of the skin heal slowly and with difficulty. Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes.

AFTER EYE CONTACT: Immediate medical attention is required. Keep eye wide open while rinsing. Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses.

AFTER INGESTION: Gently wipe or rinse the inside of the mouth with water. If conscious, drink plenty of water. Never give anything by mouth to an unconscious person. If swallowed, seek medical advice immediately and show this container or label. If swallowed, DO NOT induce vomiting unless directed to do so by medical personnel.

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

Causes serious eye damage. Causes burns. May cause sensitization by skin contact. Harmful by inhalation and if swallowed.

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically. Immediate medical attention is required. No information available on clinical testing and medical monitoring. Specific toxicological information on substances, if available, can be found in section 11.

SECTION 5: Firefighting Measures

5.1 Extinguishing Media:

Carbon Dioxide, Dry Chemical, Foam, Water Fog

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

5.2 Special hazards arising from the substance or mixture

In case of fire hazardous decomposition products may be produced such as: Carbon dioxide (CO₂), carbon monoxide (CO), oxides of nitrogen (NO_x), dense black smoke.

5.3 Advice for firefighters

Keep containers and surroundings cool with water spray. In the event of fire, wear self-contained breathing apparatus. Do not use a solid water stream as it may scatter and spread fire. Hazardous decomposition products formed under fire conditions. Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

SECTION 6: Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

6.1.1 For non-emergency personnel

Avoid contact with skin, eyes and clothing. For personal protection see section 8.2. Ensure adequate ventilation. Keep people away from and upwind of spill/leak.

6.1.2 For emergency responders

See Section 7, 8 and 10 for further information.

6.2 Environmental precautions

Discharge into the environment must be avoided. 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

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).

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. Refer to protective measures listed in sections 7 and 8.

SECTION 7: Handling and Storage

7.1 Precautions for safe handling

Wear personal protective equipment. Do not breathe vapours or spray mist. Avoid contact with skin and eyes. Apply technical measures to comply with the occupational exposure limits (see section 8). People handling epoxy products must have received special training according to guidelines from the National Occupational Health and Safety Board. In the case of sensitisation to any of the ingredients, it is inadvisable to work with the product. Handle in accordance with good industrial hygiene and safety practice. Keep working clothes separately. Keep away from food, drink and animal feedingstuffs. 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 temperatures above 40 °C, direct sunlight and contact with sources of heat. Do not freeze.
STORAGE CONDITIONS: Keep out of the reach of children. Keep at temperatures between 15 and 30 °C. Store in original container. Keep container tightly closed in a dry and well-ventilated place. Keep container closed when not in use. Keep away from food, drink and animal feeding stuffs.

7.3 Specific end use(s)

Component of multicomponent coatings. The mixing and application to be in accordance with the technical data sheets.

SECTION 8: Exposure Controls/Personal Protection

8.1 Control parameters

Ingredients with Occupational Exposure Limits (UK WELS)

<u>Name</u>	<u>CAS-No.</u>	<u>LTEL ppm</u>	<u>STEL ppm</u>	<u>STEL mg/m3</u>	<u>LTEL mg/m3</u>
4,4-Isopropylidendiphenol, oligomeres reaction product with 1-chloro-2,3- epoxypropan and Formaldehyde, oligomeres reaction product with 1-chloro-2,3- epoxypropan, reaction product with 1,3- benzoldimethanamin, polymer		1000			1920
Benzyl alcohol	100-51-6				
Polyoxypropylene diamine	9046-10-0				
2,4,6-Tris(dimethylaminomethyl)phenol	90-72-2				
Ethanol	64-17-5	1000			1920

<u>Name</u>	<u>CAS-No.</u>	<u>OEL Note</u>
4,4-Isopropylidendiphenol, oligomeres reaction product with 1-chloro-2,3- epoxypropan and Formaldehyde, oligomeres reaction product with 1- chloro-2,3-epoxypropan, reaction product with 1,3-benzoldimethanamin, polymer		
Benzyl alcohol	100-51-6	
Polyoxypropylene diamine	9046-10-0	
2,4,6-Tris(dimethylaminomethyl)phenol	90-72-2	
Ethanol	64-17-5	

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.

Chemical Name:

Benzyl alcohol

EC No.:

202-859-9

CAS-No.:

100-51-6

DNELs - Derived no effect level

Route of Exposure	Workers				Consumers			
	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					20 mg/kg bw/d		4 mg/kg bw/d
Inhalation	-	110 mg/m ³	-	22 mg/m ³	-	27 mg/m ³	-	5.4 mg/m ³
Dermal	-	40 mg/kg bw/d	-	8 mg/kg bw/d	-	20 mg/kg bw/d	-	4 mg/kg bw/d

PNEC's - Predicted no effect concentration

Environmental protection target	PNEC
Fresh water	1 mg/l
Fresh water sediments	5.27 mg/kg
Marine water	0.1 mg/l
Marine sediments	0.527 mg/kg
Food chain	
Microorganisms in sewage treatment	39 mg/l
soil (agricultural)	0.456 mg/kg
Air	

Chemical Name:

2,4,6-Tris(dimethylaminomethyl)phenol

EC No.:

202-013-9

CAS-No.:

90-72-2

DNELs - Derived no effect level

Route of Exposure	Workers				Consumers			
	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							
Inhalation				0.31 mg/m ³				
Dermal								

PNEC's - Predicted no effect concentration

Environmental protection target	PNEC
Fresh water	0.084 mg/l
Fresh water sediments	
Marine water	0.0084 mg/l
Marine sediments	
Food chain	
Microorganisms in sewage treatment soil (agricultural)	0.2 mg/l
Air	

8.2 Exposure controls**Personal Protection**

RESPIRATORY PROTECTION: No personal respiratory protective equipment normally required. In case of insufficient ventilation wear suitable respiratory equipment, filter ABEK-P2.

EYE PROTECTION: Eye wash bottle with pure water. Face-shield. Safety glasses with side-shields conforming to EN 166.

HAND PROTECTION: Use chemical resistant gloves (EN 374): Butyl rubber; thickness $\geq 0,5$ mm; breakthrough time ≥ 60 min. Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough. 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). 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:	Not determined
Physical State	Liquid
Odor	amine-like
Odor threshold	Not determined
pH	Not determined
Melting point / freezing point (°C)	Not determined
Boiling point or initial boiling point and boiling range (°C)	78 - N.D.
Flash Point, (°C)	70
Evaporation rate	Not determined
Flammability (solid, gas)	Not determined
Lower and upper explosive limit	Not determined
Vapour Pressure	Not determined
Relative vapour density	Not determined

Density and/or relative density	1.06g/cm3
Solubility in / Miscibility with water	Not determined
Partition coefficient: n-octanol/water	Not determined
Auto-ignition temperature (°C)	435
Decomposition temperature (°C)	Not determined
Kinematic viscosity	Not determined
Particle characteristics	Not applicable to liquids

9.2 Other information

VOC Content g/l:	0.00
Specific Gravity (g/cm3)	0.258

SECTION 10: Stability and Reactivity

10.1 Reactivity

No reactivity hazards known under recommended storage and use conditions.

10.2 Chemical stability

No decomposition if stored and applied as directed.

10.3 Possibility of hazardous reactions

Exothermic reaction with strong acids.

10.4 Conditions to avoid

Avoid temperatures above 40 °C, direct sunlight and contact with sources of heat. Do not freeze.

10.5 Incompatible materials

Acids. Oxidizing agents.

10.6 Hazardous decomposition products

In case of fire **hazardous decomposition products** may be produced such as: Carbon dioxide (CO₂), carbon monoxide (CO), oxides of nitrogen (NO_x), dense black smoke. No decomposition if stored and applied as directed.

SECTION 11: Toxicological information

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

Acute Toxicity:

Oral LD50:	No information available.
Inhalation LC50:	No information available.
Dermal LD50:	No Information

Irritation: No information available.

Corrosivity: Corrosive to eyes and skin.

Sensitization: May cause an allergic skin reaction.

Repeated dose toxicity: No information available.

Carcinogenicity: No information available.

Mutagenicity: No information available.

Toxicity for reproduction: No information available.

STOT-single exposure: No information available.

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:

<u>CAS-No.</u>	<u>Name According to EEC</u>	<u>Oral LD50</u>	<u>Dermal LD50</u>	<u>Vapor LC50</u>	<u>Gas LC50</u>	<u>Dust/Mist LC50</u>
	4,4-Isopropylidendiphenol, oligomeres reaction product with 1-chloro-2,3-epoxypropan and Formaldehyde, oligomeres reaction product with 1-chloro-2,3-epoxypropan, reaction product with 1,3-benzoldimethanamin, polymer	7060 mg/kg, oral, rat		20000 ppm/10 hrs, rat, inhalation	0.000	0.000
100-51-6	Benzyl alcohol		>2000 mg/kg (rat)			>4178 mg/l (rat)
64-17-5	Ethanol	7060 mg/kg, oral, rat		20000 ppm/10 hrs, rat, inhalation	0.000	0.000

Additional Information:

In the case of sensitisation to any of the ingredients, it is inadvisable to work with the product. Corrosive to skin. Corrosive - causes irreversible eye damage. Ingestion may cause nausea, vomiting, sore throat, stomach-ache and eventually lead to a perforation of the intestine. May cause allergic skin reaction.

11.2 Information on other hazards

Endocrine disrupting properties - Toxicity

Name According to EEC	CAS-No.
No Information	

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.
No Information	

12.7 Other adverse effects: No information

<u>CAS-No.</u>	<u>Name According to EEC</u>	<u>EC50 48hr</u>	<u>IC50 72hr</u>	<u>LC50 96hr</u>
	4,4-Isopropylidendiphenol, oligomeres reaction product with 1-chloro-2,3- epoxypropan and Formaldehyde, oligomeres reaction product with 1-chloro-2,3- epoxypropan, reaction product with 1,3- benzoldimethanamin, polymer	No information	No information	
100-51-6	Benzyl alcohol	230 mg/l	770 mg/l (Pseudokirchneriella)	460 mg/l (Pimephales promelas)
9046-10-0	Polyoxypropylene diamine	No information	No information	No information
90-72-2	2,4,6-Tris(dimethylaminomethyl)phenol	No information	No information	
64-17-5	Ethanol	No information	No information	

SECTION 13: Disposal Considerations
--

13.1 WASTE TREATMENT METHODS: 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. Contaminated packaging to be disposed of as product. Fully drained containers which are drop- and scrape-free can be treated as industrial waste, and can possibly be recycled. Empty containers should be taken to an approved waste handling site for recycling or disposal. The product should not be allowed to enter drains, water courses or the soil.

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	UN2735	UN2735	UN2735	UN2735
14.2 UN proper shipping name	Amines, liquid, corrosive, N.O.S., (Epoxy Resin Hardener)	Amines, liquid, corrosive, N.O.S., (Epoxy Resin Hardener)	Amines, liquid, corrosive, N.O.S., (Epoxy Resin Hardener)	Amines, liquid, corrosive, N.O.S., (Epoxy Resin Hardener)
14.3 Transport Hazard Class(es)	8	8	8	8
14.4 Packing Group	II	II	II	II
14.5 Environmental Hazards	No Information	No Information	No Information	No Information

14.6 Special precautions for user Not applicable

EmS-No.: Not applicable

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

Covered by Directive 2012/18/EC (Seveso III): Not applicable

Restrictions to product or to substances according to Annex XVII, Regulation (CE) 1907/2006: Not applicable

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:

H225	Highly flammable liquid and vapour.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H332	Harmful if inhaled.
H412	Harmful to aquatic life with long lasting effects.

Reasons for revision

No Information

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 $\leq 10 \mu\text{m}$.

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.