

The safety data sheet complies with Commission Regulation (EU) 878/2020 of 18 June 2020 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH) .

DUOTMEL 310

Creation date	19th July 2011	Version	5
Revision date	21st December 2022		

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier DUOTMEL 310
Substance / mixture mixture

1.2. Relevant identified uses of the substance or mixture and uses advised against
Mixture's intended use

Two-component epoxy sealant filled with titanium

The use descriptors

IS Use at industrial sites
PW Widespread use by professional workers

Mixture uses advised against

The product should not be used in ways other than those referred in Section 1.

1.3. Details of the supplier of the safety data sheet

Supplier

Name or trade name	NOVATO
Address	Uralská 770/6, Praha, 160 00 Czech Republic
Identification number (CRN)	62910370
VAT Reg No	CZ62910370
Phone	+420 233 339 688
E-mail	petr.johanides@novato.cz
Web address	www.novato.cz

Competent person responsible for the safety data sheet

Name	ABITEC
E-mail	info@abitec.cz

1.4. Emergency telephone number

European emergency number: 112

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification of the mixture in accordance with Regulation (EC) No 1272/2008

The mixture is classified as dangerous.

Skin Irrit. 2, H315
Skin Sens. 1, H317
Eye Irrit. 2, H319
Aquatic Chronic 3, H412

Most serious adverse physico-chemical effects

Imperfect thermal decomposition at high temperatures may release dangerous gases. Avoid contact with open flames and heat sources. Avoid inhalation of decomposition products. The mixture reacts with acids and oxidizing agents. Heat may be generated during polymerization.

Most serious adverse effects on human health and the environment

The mixture irritates the eyes (redness, burning in the eyes, tearing, conjunctivitis) and the skin (redness, burning, itching). The mixture may, depending on individual sensitivity, cause an allergic skin reaction (contact dermatitis – redness, swelling, pimples, blisters). Frequent or long-term contact with the skin causes drying or cracking of the skin or even dermatitis. Ingestion may cause abdominal pain and nausea. The mixture is classified as harmful to the environment. Avoid release to sewers, soil, ground and surface water. Follow the instructions for use to avoid risks to people and the environment. The full wording of the classification and H phrases is given in Sect. 16 of this safety data sheet.

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2.2. Label elements

Hazard pictogram



Signal word

Warning

Hazard statements

H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H412	Harmful to aquatic life with long lasting effects.

Precautionary statements

P264	Wash face, hands and exposed parts of the body thoroughly after handling.
P280	Wear protective gloves/protective clothing/eye protection.
P302+P352	IF ON SKIN: Wash with plenty of water and soap.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.

2.3. Other hazards

Neither the mixture nor its components meet the criteria for persistent, bioaccumulative and toxic or highly persistent and highly bioaccumulative substances in accordance with Annex XIII, nor have they been included in the list drawn up in accordance with Article 59, paragraph 1, due to the content of endocrine disruptors, nor has it been determined as a substance with endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Chemical characterization

Mixture.

Mixture contains these hazardous substances and substances with the highest permissible concentration in the working environment

Identification numbers	Substance name	Content in % weight	Classification according to Regulation (EC) No 1272/2008	Note
Index: 603-074-00-8 CAS: 25068-38-6 EC: 500-033-5	reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight ≤ 700)	<20	Skin Irrit. 2, H315 Skin Sens. 1, H317 Eye Irrit. 2, H319 Aquatic Chronic 2, H411 Specific concentration limit: Skin Irrit. 2, H315: C ≥ 5 % Eye Irrit. 2, H319: C ≥ 5 % Skin Sens. 1, H317: C ≥ 1 % Aquatic Chronic 2, H411: C ≥ 25 %	
Index: 603-069-00-0 CAS: 90-72-2 EC: 202-013-9	2,4,6-tris(dimethylaminomethyl)phenol	7	Acute Tox. 4, H302 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Specific concentration limit: Skin Irrit. 2, H315: C ≥ 10 % Eye Irrit. 2, H319: C ≥ 10 %	

Full text of all classifications and hazard statements is given in the section 16.

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SECTION 4: First aid measures

4.1. Description of first aid measures

In the event of health problems or in case of doubt, consult a doctor and provide him with the information from this safety data sheet. In case of life-threatening conditions, perform resuscitation. Provide warmth and peace. Place the unconscious person in a stable position and do not give anything by mouth. Avoid catching cold. Do not induce vomiting. In case of spontaneous vomiting, prevent inhalation of vomitus.

If inhaled

If inhalation occurs, stop exposure, rinse mouth with water, breathe fresh air. Seek medical attention if respiratory tract irritation or breathing difficulties occur. If necessary (respiratory arrest or irregular breathing), perform artificial respiration.

If on skin

Wipe off the mixture, wash thoroughly with water and soap and treat with a regenerating cream. If clothing becomes contaminated, remove clothing. Seek medical attention if symptoms of irritation or allergic reaction occur.

If in eyes

If the victim wears contact lenses, remove them. Forcefully open eyes should be flushed from the inner corner of the eye towards the outer with a large amount of clean lukewarm water, especially the space under the eyelids. Rinse for at least 15 min., seek medical treatment.

If swallowed

Do not induce vomiting, rinse the mouth with water, drink a glass of lukewarm water (only if the victim is conscious and not convulsing). Seek medical attention immediately and present this safety data sheet.

4.2. Most important symptoms and effects, both acute and delayed

If inhaled

not available

If on skin

The mixture irritates the skin (redness, burning, itching). The mixture may, depending on individual sensitivity, cause an allergic skin reaction (contact dermatitis – redness, swelling, pimples, blisters). Frequent or long-term contact with the skin causes drying or cracking of the skin or even dermatitis.

If in eyes

The mixture irritates the eyes (redness, burning in the eyes, tearing, conjunctivitis).

If swallowed

Ingestion may cause abdominal pain and nausea.

4.3. Indication of any immediate medical attention and special treatment needed

In the normal use of the compound, immediate medical assistance is not required. It is required only if the symptoms of a certain degree are attained, as described in paragraphs 4.1 to 4.2; is symptomatic.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Multipurpose powders, CO₂, foam, water mist, sand.

Unsuitable extinguishing media

Full stream of water.

5.2. Special hazards arising from the substance or mixture

Thermal decomposition can produce dangerous fumes (CO, CO₂, NO_x, etc.), in case of fire, thick black smoke is produced. Do not inhale decomposition products.

5.3. Advice for firefighters

Isolation breathing apparatus and non-flammable intervention suit. Cool containers near fire with water spray or cover with foam. Combustion residues and water after intervention should be disposed of as hazardous waste, prevent leakage into sewers or waterways.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Prevent the entry of unauthorized persons, ensure an escape area. Ensure adequate ventilation of the spill area. Avoid contact with skin and eyes - use personal protective equipment.

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6.2. Environmental precautions

Secure the escape area, prevent leakage into sewers, soil, surface and ground water. In the event of a large leak, monitor the concentrations of NPK or TLV and inform the relevant state authorities and the stream or sewer manager.

6.3. Methods and material for containment and cleaning up

Prevent leakage, mechanically remove the leaked substance into a closable waste container, mark and dispose of it as hazardous waste. Wash the contaminated area.

6.4. Reference to other sections

See the Section 7, 8 and 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Ensure sufficient ventilation of the work area, prevent inhalation of vapors of the mixture. Protect eyes and skin, use personal protective equipment according to sec. 8. Avoid contact with possible sources of ignition. Pay attention to the applicable safety and health regulations. Observe the principles of hygiene when working with chemicals, do not eat, drink or smoke while working. Wash your hands with warm soapy water before breaks, meals and after work.

7.2. Conditions for safe storage, including any incompatibilities

Store in the original packaging in a dry, cool, well-ventilated place protected from the elements. Store away from food, drink and feed. Store away from heat sources. Store away from oxidizing agents, acids and bases. Follow the directions on the label.

7.3. Specific end use(s)

not available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

The mixture does not contain any constituents of national exposure limits specified in Annex 2, Government Decree 361/2007 Coll., As amended or European Union for Work Environment.

8.2. Exposure controls

Ensure sufficient ventilation, or extraction of the working space. Avoid contact with skin and eyes. Observe hygienic measures for working with chemicals. Do not eat, drink or smoke while working. Wash your hands with lukewarm water and soap before breaks, meals and after work. Adapt personal protective equipment to the nature of the work.

Eye/face protection

Protective goggles.

Skin protection

Protective work clothing. Remove contaminated clothing and wash before re-use. Protective gloves (material e.g. nitrile rubber, butyl rubber). Observe the recommended penetration time of the glove material. When choosing, follow the manufacturer's recommendations, the material must be impermeable and resistant to the components of the mixture. Replace damaged gloves.

Respiratory protection

Not necessary. In case of insufficient ventilation, use a respirator, in case of long-term exposure, an insulating breathing apparatus.

Thermal hazard

Not available.

Environmental exposure controls

Observe the usual environmental precautions. Avoid leakage into sewers, underground and surface water and soil.

More information

Ensure compliance with governmental regulation 361/2007 Coll., Laying down the conditions for the protection of health at work, as amended, and to fulfill the obligations contained therein.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	solid
Colour	Different
Odour	characteristic

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Melting point/freezing point	data not available
Boiling point or initial boiling point and boiling range	>280 °C
Flammability	Flammable IV. hazard class
Lower and upper explosion limit	data not available
Flash point	>200 °C
Auto-ignition temperature	data not available
Decomposition temperature	data not available
pH	7 (undiluted)
Kinematic viscosity	data not available
Solubility in water	insoluble
Partition coefficient n-octanol/water (log value)	data not available
Vapour pressure	data not available
Density and/or relative density	
Density	1.086 g/cm ³ at 20 °C
Relative vapour density	data not available
Particle characteristics	data not available

9.2. Other information

VOC content: Based on the available data, it does not contain volatile organic substances.

SECTION 10: Stability and reactivity

10.1. Reactivity

Data not available.

10.2. Chemical stability

The mixture is stable under normal environmental conditions, storage and handling.

10.3. Possibility of hazardous reactions

Unknown.

10.4. Conditions to avoid

Heating, direct sunlight, contact with open fire.

10.5. Incompatible materials

Oxidizing agents, strong acids and bases.

10.6. Hazardous decomposition products

Under normal conditions, the mixture does not decompose. Incomplete combustion or thermal decomposition produce toxic combustion products (CO, CO₂, NO_x, thick black smoke).

SECTION 11: Toxicological information

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

The mixture meets the criteria for classification according to EC Regulation No. 1272/2008. The mixture is classified as dangerous in the sense of EC Regulation No. 1272/2008, as amended.

Acute toxicity

The mixture is not classified as acutely toxic by any way of exposure.

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Route of exposure	Parameter	Value	Exposure time	Species	Sex
Oral	LD ₅₀	>2000 mg/kg		Rat	
2,4,6-tris(dimethylaminomethyl)phenol					
Route of exposure	Parameter	Value	Exposure time	Species	Sex
Oral	LD ₅₀	1916-2455 mg/kg		Rat	
Dermal	LD ₅₀	1280 mg/kg		Rat	

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reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight ≤ 700)					
Route of exposure	Parameter	Value	Exposure time	Species	Sex
Oral	LD ₅₀	13600 mg/kg		Rat	
Dermal	LD ₅₀	23000 mg/kg		Rabbit	

Skin corrosion/irritation

The mixture is classified as skin irritant, category 2. Irritating to skin.

Serious eye damage/irritation

The mixture is classified as eye irritant, category 2. Causes serious eye irritation.

Respiratory or skin sensitisation

The mixture is classified as a skin sensitizer, category 1. It may cause an allergic skin reaction.

Germ cell mutagenicity

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

Carcinogenicity

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

Reproductive toxicity

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

Toxicity for specific target organ - single exposure

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

Toxicity for specific target organ - repeated exposure

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

Aspiration hazard

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

11.2. Information on other hazards

It does not contain substances causing disruption of the endocrine system. The mixture irritates the eyes (redness, burning in the eyes, tearing, conjunctivitis) and the skin (redness, burning, itching). The mixture may, depending on individual sensitivity, cause an allergic skin reaction (contact dermatitis – redness, swelling, pimples, blisters). Frequent or long-term contact with the skin causes drying or cracking of the skin or even dermatitis. Ingestion may cause abdominal pain and nausea.

SECTION 12: Ecological information

12.1. Toxicity

The ecotoxic effects of the mixture were not assessed. Observe the usual environmental precautions.

Acute toxicity

reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight ≤ 700)				
Parameter	Value	Exposure time	Species	Environment
LC ₅₀	1-10 mg/l	96 hours	Fish (Leuciscus idus)	
EC ₅₀	1.8 mg/l	48 hours	Invertebrates (Daphnia magna)	
IC ₅₀	11 mg/l	72 hours	Algae	

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12.2. Persistence and degradability

The mixture is not biodegradable.

12.3. Bioaccumulative potential

Not determined, bioaccumulation is unlikely.

12.4. Mobility in soil

It's not mobile.

12.5. Results of PBT and vPvB assessment

The mixture does not contain substances from the PBT and vPvB groups according to Annex XIII of the REACH Regulation, as amended.

12.6. Endocrine disrupting properties

Substances with these properties in accordance with the criteria set out in Commission Regulation (EU) 2017/2100 or (EU) 2018/605 are not included.

12.7. Other adverse effects

Water hazard class: WGK 2 (self-classification) The mixture is classified as toxic for environmental components. It must not get into the soil, underground or surface water or sewage system. Observe the usual environmental protection measures.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Suitable disposal methods for the mixture Dispose of as hazardous waste. Hand over to an authorized person or to a hazardous waste collection yard for disposal. Dispose of mixture and packaging residues in accordance with local waste management regulations.

Waste management legislation

Act No. 477/2001 Coll., On Packaging, as amended. Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste, as amended.

Waste type code

08 04 09* waste adhesives and sealants containing organic solvents or other hazardous substances

Packaging waste type code

15 01 10* packaging containing residues of or contaminated by hazardous substances

(*) - Hazardous waste according to Directive 2008/98/EC on hazardous waste

SECTION 14: Transport information

14.1. UN number or ID number

not subject to transport regulations

14.2. UN proper shipping name

not relevant

14.3. Transport hazard class(es)

not relevant

14.4. Packing group

not relevant

14.5. Environmental hazards

not relevant

14.6. Special precautions for user

Transport in packages that match the properties of the mixture. Observe the prescribed marking for cargo.

14.7. Maritime transport in bulk according to IMO instruments

not relevant

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SECTION 15: Regulatory information

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

Parliament and of the Council of 18th December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing the European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No. 793/93 and Commission Regulation (EC) No. 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, as amended. COMMISSION REGULATION (EU) 2020/878 amending Annex II to Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH). Commission Delegated Regulation (EU) 2021/849 of 11 March 2021 amending, for the purposes of adapting to technical and scientific progress, Part 3 of Annex VI to Regulation (EC) No 1272/2008 of the European Parliament and of the Council on classification, labeling and packaging of substances and mixtures. REGULATION (EC) No 648/2004 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 31 March 2004 on detergents, as amended. Commission Regulation (EU) No 2015/830 of 28 May 2015 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorization and Restriction of Chemicals.

15.2. Chemical safety assessment

No chemical hazard assessment was performed for this mixture.

SECTION 16: Other information

A list of standard risk phrases used in the safety data sheet

H302	Harmful if swallowed.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

Guidelines for safe handling used in the safety data sheet

P264	Wash face, hands and exposed parts of the body thoroughly after handling.
P280	Wear protective gloves/protective clothing/eye protection.
P302+P352	IF ON SKIN: Wash with plenty of water and soap.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.

Other important information about human health protection

The mixture should not be used for any purpose other than that for which it is intended (see point 1.2). Because the supplier can not control the specific conditions of use of the mixture, it is the responsibility of the user to adapt the prescribed warnings to local laws and regulations. Safety information describes the product in terms of safety and can not be considered as technical product information.

Key to abbreviations and acronyms used in the safety data sheet

ADR	European agreement concerning the international carriage of dangerous goods by road
BCF	Bioconcentration Factor
CAS	Chemical Abstracts Service
CLP	Regulation (EC) No 1272/2008 on classification, labelling and packaging of substance and mixtures
EC	Identification code for each substance listed in EINECS
EC ₅₀	Concentration of a substance when it is affected 50% of the population
EINECS	European Inventory of Existing Commercial Chemical Substances
EmS	Emergency plan
EU	European Union
EuPCS	European Product Categorisation System
IATA	International Air Transport Association
IBC	International Code For The Construction And Equipment of Ships Carrying Dangerous Chemicals
IC ₅₀	Concentration causing 50% blockade

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ICAO	International Civil Aviation Organization
IMDG	International Maritime Dangerous Goods
IMO	International Maritime Organization
INCI	International Nomenclature of Cosmetic Ingredients
ISO	International Organization for Standardization
IUPAC	International Union of Pure and Applied Chemistry
LC ₅₀	Lethal concentration of a substance in which it can be expected death of 50% of the population
LD ₅₀	Lethal dose of a substance in which it can be expected death of 50% of the population
log K _{ow}	Octanol-water partition coefficient
NPK	Maximum admissible concentration
OEL	Occupational Exposure Limits
PBT	Persistent, Bioaccumulative and Toxic
PEL	Permissible Exposure Limit
ppm	Parts per million
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
RID	Agreement on the transport of dangerous goods by rail
UN	Four-figure identification number of the substance or article taken from the UN Model Regulations
UVCB	Substances of unknown or variable composition, complex reaction products or biological materials
VOC	Volatile organic compounds
vPvB	Very Persistent and very Bioaccumulative
Acute Tox.	Acute toxicity
Aquatic Chronic	Hazardous to the aquatic environment (chronic)
Eye Irrit.	Eye irritation
Skin Irrit.	Skin irritation
Skin Sens.	Skin sensitization

Training guidelines

According to § 103 and § 104 of Act No. 262/2006 Coll., The Labor Code, as amended. Inform the personnel about the recommended ways of use, mandatory protective equipment, first aid and prohibited ways of handling the product.

Recommended restrictions of use

not available

Information about data sources used to compile the Safety Data Sheet

Manufacturer data and toxicological databases.

The changes (which information has been added, deleted or modified)

Adaptation of BL updated Annex II of the REACH Regulation as amended by Commission Regulation (EU) 2020/878.

Statement

The safety data sheet contains the data needed to ensure safety and health at work and environmental protection. These data correspond to the current state of knowledge and experience and are in accordance with applicable legal regulations. They can not be considered as a guarantee of the suitability and usability of the product for a specific application. The user is responsible for the treatment under existing laws and regulations.