

SEAL DD

Hot or cold weldable sealing collar
Riwega | eternitycomfort

Safety Data Sheet **SEAL DD**

del: 23/11/2021

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

1.1	Product identifier	TRADE NAME: <i>SEAL DD</i> CODE: <i>020103530</i>
1.2	Relevant identified uses of the substance or mixture and uses advised against	RELEVANT USE: <i>Pipe penetration</i>
1.3	Details of the supplier of the safety data sheet	RIWEGA GmbH Isola di Sopra Street, 28 I - 39044 Egna (BZ) Tel. +39 0471 827 500
1.4	Emergency telephone number	Gamper Werner Tel. +39 0471 827 500 E-mail: info@riwega.com

SECTION 2: Possible dangers

2.1	Classification of the substance or mixture	<p>This mixture has not been evaluated as a whole. Information on health effects is based on individual components.</p> <p>The product is classified as dangerous according to Regulation (EC) 1272/2008 and its amendments.</p> <p>Skin Sens. 1, H317 Aquatic Chronic 2, H411</p> <p>See section 16 for the full text of the above H-phrases. See section 11 for more detailed information on health effects and symptoms.</p>
2.2	Labelling elements	<p>This ingredient may migrate outside the polymer matrix. Labelling by reception is not necessary (according to EC 1272/2008 Article 23d), but potential migration should be considered when the substance is used after 6 months of storage.</p> <p>Hazard pictograms: Not applicable. Signal word: Not applicable. Hazard statements: Not applicable. Precautionary statements: General: Not applicable. Prevention: Not applicable. Reaction: Not applicable. Storage: Not applicable. Disposal: Not applicable. Hazardous ingredients: 2-Benzotriazolyl-4-methylphenol. Supplemental labelling elements: Not applicable. Annex XVII - Restriction on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles: Not applicable.</p>
2.3	Other hazards	<p>Substance fulfils the criteria for PBT according to Regulation (EC) No 1907/2006, Annex XIII: See section 3 and 15 for details. Substance meets the criteria for vPvB according to Regulation (EC) No 1907/2006, Annex XIII: See section 3 and 15 for details. Other hazards not leading to classification: None known</p> <p>The product may form flammable mixtures or burn only if heated to temperatures above the flash point. Risk of decomposition. Formation of flammable/toxic gases on decomposition (see par. 10). Danger of electrostatic charge. Product may become statically charged, resulting in an ignitable electrical discharge.</p>

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SECTION 3: Composition / information on ingredients

3.1 Chemical characterisation: Substances

Composition

Thermoplastic polyurethane
Additives: Colour masterbatch grey
UV stabiliser

Remarks on special components

Ingredients	CAS-Nr.	EINECS/ELINCS	Weight %	Classification 1272/2008/EC	Type
2-Benzotriazolyl-4-methylphenol	2440-22-4	219-470-5	0,1 - 0,2	Skin Sens. 1, H317 Aquatic Chronic 1, H410	[1]
Butanedioic acid, dimethyl ester, polymer with 4-hydroxy-2,2,6,6-tetramethyl-1-piperidineethanol	65447-77-0	613-797-0	0,1 - 0,2	Aquatic Chronic 3, H412	[1]

Type [1] Substance has been classified as physically, health or environmentally hazardous.

See section 16 for the full text of the H-phrases given above.

There are no additional ingredients present which, to the best of the supplier's current knowledge, are classified as harmful to health or the environment at the applicable concentrations and therefore need to be stated in this section.

SECTION 4: First aid measures

4.1 Description of the first aid measure

General notes:

None

After inhalation:

In the event of contact with gases which may be generated at high temperatures and in the event of fire, remove the affected person from the danger zone using suitable respiratory protection measures. In case of non-existent or irregular breathing or in case of respiratory arrest, artificial respiration or oxygen administration must be initiated by trained personnel. It may be dangerous for the person giving first aid to perform mouth-to-mouth resuscitation. Seek medical help if the health impairment persists or it is severe. If unconscious, place in recovery position and seek immediate medical attention. Keep airways open. Loosen tight-fitting clothing (e.g. collar, tie, belt or waistband). Symptoms may be delayed if products of combustion are inhaled. The affected person may need to remain under medical observation for 48 hours.

After skin contact:

First aid is generally not required.

After eye contact:

This product is an inert solid. If any of it gets into the eyes, remove as usual for foreign bodies.

After ingestion:

Rinse mouth with water. Remove dentures if present. Remove the affected person to fresh air and immobilise in a position that facilitates breathing. If the substance has been swallowed and the person is conscious, give small amounts of water to drink. If nausea occurs, do not allow to continue drinking as vomiting can be dangerous. Do not induce vomiting unless specifically instructed to do so by medical personnel. If vomiting occurs, keep the head low so that vomit does not enter the lungs. Seek medical attention if the medical condition persists or is severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and seek medical attention immediately. Keep airways open. Loosen tight-fitting clothing (e.g. collar, tie, belt or waistband).

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4.2 Indications for immediate medical help or special treatment

Protection of first responders:

No action should be taken that involves personal risk or has not been adequately trained. It may be dangerous for the first aider to perform mouth-to-mouth resuscitation.

4.3 Possible acute effects on health

Eye contact: No particular effects or hazards known.

Inhalation: Exposure to decomposition products may cause damage to health. Serious damage may be delayed after exposure.

Skin contact: May cause allergic skin reactions.

Ingestion: No special effects or hazards known.

4.4 Signs/symptoms of overexposure

Eye contact: No specific data.

Inhalation: No specific data.

Skin contact: Symptoms may include: Irritation Redness

Ingestion: No specific data.

4.5 Indications for immediate medical help or special treatment

Information for doctor: If the products of combustion are inhaled, symptoms may be delayed. The affected person may need to remain under medical observation for 48 hours.

Special treatments: No special treatment.

SECTION 5: Fire-fighting measures

5.1 Extinguishing agent

Suitable extinguishing media

All common extinguishing media such as water spray, extinguishing powder, CO₂ foam, dry extinguishing media, sand.

Extinguishing media unsuitable for safety reasons: none

5.2 Special hazards arising from the substance or mixture

Special hazards

In case of fire, carbon dioxide, carbon monoxide, nitrogen oxides, monomers and traces of hydrogen cyanide may be released. Thermal decomposition into toxic products may occur at high temperatures. Do not inhale combustion or explosion gases.

Ingredients of this product are toxic to aquatic organisms and have long-term effects. Contaminated extinguishing water must be contained and must not enter water bodies, sewers or drains.

5.3 Advice for firefighters

In case of fire, immediately seal off the scene and evacuate all persons from the danger area. No action should be taken that involves personal risk or has not been adequately trained.

Firefighters should wear appropriate protective clothing and self-contained breathing apparatus with full facepiece operated in positive pressure mode. Clothing for firefighters (including helmet, protective boots and protective gloves) that complies with European Standard EN 469 gives basic protection in case of accidents with chemicals.

5.4 Additional hints

Collect contaminated extinguishing water separately and do not allow it to enter sewers or water bodies.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

None

6.2 Methods and material for retention and cleaning

Pick up mechanically and dispose of in suitable containers for recovery or disposal. Observe waste legislation when disposing of recovered material. For safe handling see section 7, for disposal see section 13.

6.3 Additional hints

Do not allow to enter waters or drains.

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SECTION 7: Handling and storage

7.1 Precautions for safe handling

Minimum hygienic standards must be observed during work. Persons with a history of hypersensitive skin should not perform any work involving this product. Eating, drinking and smoking should be avoided when handling the product. Persons handling the product must wash their hands before eating, drinking or smoking.

7.2 Conditions for safe storage, including any incompatibilities

Store in a cool, well-ventilated place some distance from other incompatible materials, such as concentrated acids and bases and strong oxidising agents.

Do not handle or store product near open flames, sources of heat or ignition. Protect material from direct sunlight.

Store away from food and drink.

The material may become electrostatically charged and may discharge, causing sparks. Therefore, take measures against electrostatic charging and ground properly.

Recommended storage temperature: < +40 °C

Transport, loading and unloading temperature: Ambient temperature

SECTION 8: Exposure controls and personal protection

8.1 Control parameters

Exposure limit values

No exposure limit values are known.

DNEL / DMEL Summary: Not available.

8.2 Occupational exposure controls and monitoring

Good normal room ventilation when used indoors should be sufficient to limit worker exposure to airborne pollutants.

Hygienic measures: Wash hands, forearms and face thoroughly after handling the product and at the end of the working day, as well as before eating, smoking and visiting the toilet.

Respiratory protection: normally no personal respiratory protection necessary

Hand protection: persons with appropriate disposition should wear approved protective gloves to protect against skin irritation.

Eye protection: not normally required

Body protection: not necessary

8.3 Limitation and monitoring of environmental exposure

PNEC Summary: Not available.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

General information

Physical state: solid

Colour: grey

Odour: almost odourless

9.2 Safety-relevant basic data

pH value: not determinable

Melting range: > 120 °C

Decomposition temperature: from approx. 230 °C

Ignition temperature: > 210 °C

Solubility in water: insoluble

Explosion hazard: none

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SECTION 10: Stability and reactivity

10.1 Chemical stability	Stable under normal conditions
10.4 Conditions to be avoided	Decomposition starts at 230 °C. Avoid contact with concentrated acids and bases as well as strong oxidising agents.
10.6 Hazardous decomposition products	During smouldering or incomplete combustion, toxic gas mixtures develop which contain mainly carbon monoxide, carbon dioxide and nitrogen oxides. When heated above the melting temperature, isocyanates may be released. In case of overexposure, there is a risk of concentration-dependent inhalation irritation and/or sensitisation by isocyanates (delayed onset of respiratory problems, coughing, asthma is possible).

SECTION 11: Toxicological information

The product has not been assessed as a whole for health effects. Listed exposure effects are based on existing health data of individual components. The following is the data available to us for the TPU with additives used:

11.1 Toxicogenetics

There is no information available.

For risk assessment, data for a comparable product:

11.2 Information on toxicological effects

Acute effects:

Acute toxicity

Ingredient name	Result	Species	Dose	Exposition
2-Benzotriazolyl-4-methylphenol	LD50 Oral	Rat	10,000 mg/kg	
Butanedioic acid, dimethyl ester, polymer with 4-hydroxy-2,2,6,6-tetramethyl-1-piperidineethanol				

Acute toxicity oral

Thermoplastic polyurethane

LD50 rat: > 5000 mg/kg

Acute toxicity of UV stabiliser: LD50 oral mouse: 6500 mg/kg (2-(2H-benzotriazol-2-yl)-p-cresol CAS: 2440-22-4)

Acute toxicity dermal

Thermoplastic polyurethane

LD50 rat: > 2000 mg/kg

Acute toxicity inhalation

Thermoplastic polyurethane

Assessment: The substance or mixture has no acute respiratory toxicity.

Test on a comparable product.

Irritation/corrosion:

Ingredient name	Result	Species	Score	Exposition	Observation
2-Benzotriazolyl-4-methylphenol	Eyes - Mild irritant	Rabbit		24 h	

Primary skin irritant effect

Thermoplastic polyurethane

Species: Rabbit

Result: Non-irritant

Classification: No skin irritation

Method: OECD Test Guideline 404

Primary mucosal irritant effect

Thermoplastic polyurethane

Species: Rabbit

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11.3 Sensitisation

Result: Non-irritant
Classification: Not irritating to eyes
Primary skin irritant effect, rabbit: Non-irritant
Primary mucous membrane irritant effect, rabbit: non-irritant

11.4 Subacute, subchronic and long-term toxicity

Thermoplastic polyurethane
Skin sensitisation according to Magnusson/Kligman (maximisation test):
Species: Guinea pig
Result: negative
Classification: Does not cause skin sensitisation.
Method: OECD Test Guideline 406

11.5 CMR effects

No data available

Carcinogenicity: no data available

Reproductive toxicity/fertility teratogenicity: No data available.

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

Genotoxicity in vitro

Thermoplastic polyurethane
Test type: Salmonella/microsome test (Ames test)
Result: No evidence of a mutagenic effect.
Method: OECD Test Guideline 471

Genotoxicity in vivo: no data available

Assessment STOT - Single exposure

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

Assessment STOT-repeated exposure No data available

Possible acute health effects

Eye contact: No particular effects or hazards known.
Inhalation: Exposure to decomposition products may cause damage to health. Serious damage may be delayed after exposure.
Skin contact: May cause allergic skin reactions.
Ingestion: No special effects or hazards known.

Possible chronic health effects

Mixture. Not fully tested.

General: After sensitisation, severe allergic reactions may occur with subsequent exposure to very small amounts.

Carcinogenicity: No particular effects or hazards known.

Mutagenicity: No specific effects or hazards known.

Teratogenicity: No particular effects or hazards known.

Developmental effects: No particular effects or hazards known.

Effects on fertility: No particular effects or hazards known.

11.6 Other information

When exposed to temperatures above the recommended storage temperature of the product, small amounts of isocyanates may be released.

In case of overexposure, there is a risk of concentration-dependent inhalation irritation and/or sensitisation by isocyanates (delayed onset of respiratory problems, coughing, asthma is possible). In hypersensitive persons, reactions may be triggered even at very low isocyanate concentrations.

The regulations for the substances listed below must be observed.

Substance: Isocyanates (all, as -NCO)

According to our experience and information, the product does not cause any adverse health effects when handled properly.

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SECTION 12: Environmental information

Ecotoxicological studies on the product are not available.

Do not allow to enter waters, sewage or soil.

Chemicals are bound in the matrix of the polymer and are therefore not really free.

12.1 Toxicity

Studies on a comparable product

Acute fish toxicity:

Thermoplastic polyurethane

EC50 > 100 mg/l

Species: Danio rerio (zebrafish)

Exposure duration: 96 h

Method: Tested according to 92/69/EEC.

Chronic fish toxicity

Thermoplastic polyurethane

No data available.

Acute daphnia toxicity

Thermoplastic polyurethane

EC50 > 100 mg/l

Species: Daphnia magna (Greater water flea)

Exposure duration: 48 h

Method: Tested according to 92/69/EEC.

Chronic daphnia toxicity: No data available.

Acute algal toxicity

Thermoplastic polyurethane

Endpoint: Growth inhibition

Species: Scenedesmus subspicatus

Exposure duration: 72 h

Method: OECD Test Guideline 201

No toxic effects in saturated solution.

Acute bacterial toxicity

Thermoplastic polyurethane

EC50 > 10,000 mg/l

Test type: Respiratory inhibition

Species: Activated sludge

Exposure time: 3 h

Method: OECD Test Guideline 209

12.2 Persistence and degradability

Biodegradability

Thermoplastic polyurethane

Biodegradation: 1 %, 28 d, i.e. not readily degradable.

Method: Tested according to 92/69/EEC.

Investigation on a comparable product.

12.3 Bioaccumulative potential

No data available

12.4 Mobility in soil

No data available

12.5 Results of the PBT assessment

No data available

12.6 Other adverse effects

No data available

SECTION 13: Disposal instructions

Waste disposal

The product can be disposed of in accordance with local regulations or deposited with household waste.

SECTION 14: Transport information

Landtransport (ADR/RID)

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14.1	UN-number	No dangerous goods within the meaning of these transport regulations
14.2	UN proper shipping name	No dangerous goods within the meaning of these transport regulations
14.3	Transport hazard classes	No dangerous goods within the meaning of these transport regulations
14.4	Packing group	No dangerous goods within the meaning of these transport regulations
14.5	Environmental hazards	No dangerous goods within the meaning of these transport regulations
14.6	Special precautions for user	No dangerous goods within the meaning of these transport regulations
14.7	Carriage in bulk in accordance with Annex II of the MARPOL Convention and the IBC Code.	No dangerous goods within the meaning of these transport regulations
Ship transport (ADN/IMGD)		
14.1	UN-number	No dangerous goods within the meaning of these transport regulations
14.2	UN proper shipping name	No dangerous goods within the meaning of these transport regulations
14.3	Transport hazard classes	No dangerous goods within the meaning of these transport regulations
14.4	Packing group	No dangerous goods within the meaning of these transport regulations
14.5	Environmental hazards	No dangerous goods within the meaning of these transport regulations
14.6	Special precautions for user	No dangerous goods within the meaning of these transport regulations
14.7	Carriage in bulk in accordance with Annex II of the MARPOL Convention and the IBC Code.	No dangerous goods within the meaning of these transport regulations
Air transport (ICAO/IATA-DGR)		
14.1	UN-number	No dangerous goods within the meaning of these transport regulations
14.2	UN proper shipping name	No dangerous goods within the meaning of these transport regulations
14.3	Transport hazard classes	No dangerous goods within the meaning of these transport regulations
14.4	Packing group	No dangerous goods within the meaning of these transport regulations
14.5	Environmental hazards	No dangerous goods within the meaning of these transport regulations
14.6	Special precautions for user	No dangerous goods within the meaning of these transport regulations
14.7	Carriage in bulk in accordance with Annex II of the MARPOL Convention and the IBC Code.	No dangerous goods within the meaning of these transport regulations

SECTION 15: Legislation

15.1	Safety, health and environmental regulations/specific legislation for the substance or mixture	<p>EU regulations No labelling required according to the Ordinance on Hazardous Substances and corresponding EC - Directives or Regulations. Hazard criteria: E1 Harmful to the aquatic environment - Chronic 1</p> <p>National regulations Not subject to the Hazardous Incident Ordinance Technical Instructions on Air Quality Control: not applicable Water hazard class: WGK 1, Annex No. 4 Other regulations, restrictions: none</p>
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SECTION 16: Other Information

Full text of abbreviated H-phrases:
H317 May cause an allergic skin reaction.
H411 Toxic to aquatic life with long lasting effects.

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H412 Harmful to aquatic organisms, with long lasting effects.

H413 May be harmful to aquatic organisms, with long lasting effects.

The safety data sheet is intended to protect human health and the environment by providing appropriate information to users.

The information in this safety data sheet corresponds to the state of knowledge on the date of issue. They are not contractual assurances of product properties.

No liability is accepted for factors beyond our knowledge and control. Each user is therefore responsible for checking the intended area of application and the respective purpose of use, taking into account any specific peculiarities. Freedom from patent and copyright and utility model protection rights cannot be assumed.

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