

SAFETY DATA SHEET



Guard Shield (A017)

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

1.1 Product identifier

Product name : Guard Shield (A017)
Product code : 54922
Product type : Powder coating.
Other means of identification : Not available.

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

Use in coatings - Industrial use

1.3 Details of the supplier of the safety data sheet

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1.4 Emergency telephone number

National Poison Information Center

+90 224 442 82 93 Uludağ Üniversitesi Zehir Danışma Merkezi (www.uludag.edu.tr/uludag/zehir.html)
a. ACİL DURUM TELEFONU: Zehirlenme durumlarında gerektiğinde ulusal zehir merkezinin (UZEM) 114 nolu telefonunu arayınız.
b. ACİL İLK YARDIM MERKEZİ:112
c. İTFAİYE:110

SECTION 2: Hazards identification**2.1 Classification of the substance or mixture****Product definition** : Mixture**Classification according to regulation SEA: RG.-10/12/2020-31330**

Eye Dam. 1, H318

Skin Sens. 1, H317

Repr. 1B, H360D

Aquatic Chronic 3, H412

The product is classified as hazardous according to Regulation SEA: RG.-10/12/2020-31330.

See Section 16 for the full text of the H statements declared above.

See Section 11 for more detailed information on health effects and symptoms.

2.2 Label elements**Hazard pictograms** :**Signal word** : Danger.

Hazard statements : H317 - May cause an allergic skin reaction.
 H318 - Causes serious eye damage.
 H360D - May damage the unborn child.
 H412 - Harmful to aquatic life with long lasting effects.

Precautionary statements**General** : Not applicable.

Prevention : P201 - Obtain special instructions before use.
 P280 - Wear protective gloves, protective clothing and eye or face protection.
 P273 - Avoid release to the environment.
 P261 - Avoid breathing dust.

Response : P308 + P313 - IF exposed or concerned: Get medical advice or attention.
 P362 + P364 - Take off contaminated clothing and wash it before reuse.
 P302 + P352 - IF ON SKIN: Wash with plenty of water.
 P333 + P313 - If skin irritation or rash occurs: Get medical advice or attention.
 P305 + P351 + P338, P310 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 Immediately call a POISON CENTER or doctor.

Storage : Not applicable.**Disposal** : P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.

Hazardous ingredients : 1-o-tolylbiguanide
 1h-imidazole, 2-methyl-

Supplemental label elements : Not applicable.

Annex 17 - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles : Restricted to professional users.

Special packaging requirements

Containers to be fitted with child-resistant fastenings : Not applicable.

Tactile warning of danger : Not applicable.**2.3 Other hazards**

Guard Shield (A017)

SECTION 2: Hazards identification

- Product meets the criteria for PBT or vPvB** : This mixture does not contain any substances that are assessed to be a PBT or a vPvB.
- Other hazards which do not result in classification** : None known.

SECTION 3: Composition/information on ingredients**3.2 Mixtures** : Mixture

| Product/ingredient name | Identifiers | % | SEA: RG.-10/12/2020-31330 | Type |
|---|----------------------------------|------|---|------|
| titanium dioxide | EC: 236-675-5 CAS: 13463-67-7 | ≤40 | Not classified. | [2] |
| barium sulfate | EC: 231-784-4 CAS: 7727-43-7 | ≤25 | Not classified. | [2] |
| benzene-1,2,4,5-tetracarboxylic acid, compound with 4,5-dihydro-2-phenyl-1H-imidazole (1:1) | EC: 259-224-4 CAS: 54553-90-1 | ≤10 | Aquatic Chronic 3, H412 | [1] |
| 1-o-tolylbiguanide | EC: 202-268-6 CAS: 93-69-6 | ≤10 | Eye Dam. 1, H318 Skin Sens. 1, H317 Aquatic Chronic 3, H412 | [1] |
| 1h-imidazole, 2-methyl- | CAS: 693-98-1 | <1 | Acute Tox. 4, H302 Skin Corr. 1C, H314 Eye Dam. 1, H318 Carc. 2, H351 Repr. 1B, H360D | [1] |
| 3,9-bis(2,4-di-tert-butylphenoxy)-2,4,8,10-tetraoxa-3,9-diphosphaspiro[5.5]undecane | EC: 247-952-5 CAS: 26741-53-7 | ≤1 | Aquatic Chronic 1, H410 (M=1) | [1] |
| Propylidynetrimethanol | EC: 201-074-9 CAS: 77-99-6 | ≤0.3 | Repr. 2, H361fd | [1] |
| | | | See Section 16 for the full text of the H statements declared above. | |

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs or vPvBs or have been assigned a workplace exposure limit and hence require reporting in this section.

Type

[1] Substance classified with a health or environmental hazard

[2] Substance with a workplace exposure limit

Occupational exposure limits, if available, are listed in Section 8.

SECTION 4: First aid measures**4.1 Description of first aid measures**

- Eye contact** : Get medical attention immediately. Call a poison center or physician. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician.

SECTION 4: First aid measures

- Inhalation** : Get medical attention immediately. Call a poison center or physician. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- Skin contact** : Get medical attention immediately. Call a poison center or physician. Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Chemical burns must be treated promptly by a physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. 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

Potential acute health effects

- Eye contact** : Causes serious eye damage.
- Inhalation** : No known significant effects or critical hazards.
- Skin contact** : May cause an allergic skin reaction.
- Ingestion** : No known significant effects or critical hazards.

Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:
pain
watering
redness
- Inhalation** : Adverse symptoms may include the following:
reduced foetal weight
increase in foetal deaths
skeletal malformations
- Skin contact** : Adverse symptoms may include the following:
pain or irritation
redness
blistering may occur
reduced foetal weight
increase in foetal deaths
skeletal malformations
- Ingestion** : Adverse symptoms may include the following:
stomach pains
reduced foetal weight
increase in foetal deaths
skeletal malformations

SECTION 4: First aid measures

4.3 Indication of any immediate medical attention and special treatment needed

- Notes to physician** : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- Specific treatments** : No specific treatment.

SECTION 5: Firefighting measures

5.1 Extinguishing media

- Suitable extinguishing media** : Use an extinguishing agent suitable for the surrounding fire.
- Unsuitable extinguishing media** : None known.

5.2 Special hazards arising from the substance or mixture

- Hazards from the substance or mixture** : This material is harmful to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.
Fine dust clouds may form explosive mixtures with air.
- Hazardous thermal decomposition products** : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
nitrogen oxides
sulfur oxides
metal oxide/oxides

5.3 Advice for firefighters

- Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
- For emergency responders** : If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

6.2 Environmental precautions

- : Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities.

6.3 Methods and material for containment and cleaning up

- Small spill** : Move containers from spill area. Avoid dust generation. Do not dry sweep. Vacuum dust with equipment fitted with a HEPA filter and place in a closed, labeled waste container. Place spilled material in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor.

SECTION 6: Accidental release measures

Large spill : Move containers from spill area. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Avoid dust generation. Do not dry sweep. Vacuum dust with equipment fitted with a HEPA filter and place in a closed, labeled waste container. Dispose of via a licensed waste disposal contractor.

6.4 Reference to other sections : See Section 1 for emergency contact information.
See Section 8 for information on appropriate personal protective equipment.
See Section 13 for additional waste treatment information.

SECTION 7: Handling and storage

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

7.1 Precautions for safe handling

Protective measures : Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not ingest. Avoid release to the environment. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

Advice on general occupational hygiene : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

7.2 Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

See Technical Data Sheet / packaging for further information.

7.3 Specific end use(s)

Recommendations : Not available.

Industrial sector specific solutions : Not available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Dust Limit : 10 mg/m³ (TWA of total inhalable dust) and 4 mg/m³ (TWA of respirable)

Occupational exposure limits

| Product/ingredient name | Exposure limit values |
|--|---|
| titanium dioxide barium sulfate | EU OEL (Europe). TWA: 5 mg/m ³ 8 hours. ACGIH TLV (United States, 7/2023). TWA: 5 mg/m ³ 8 hours. Form: Inhalable fraction |

Biological exposure indices

No exposure indices known.

SECTION 8: Exposure controls/personal protection

Recommended monitoring procedures : Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

DNELs/DMELs

| Product/ingredient name | Type | Exposure | Value | Population | Effects |
|---|-----------------------|-------------------------|-------------------------|--------------------|----------|
| titanium dioxide | DNEL | Long term Inhalation | 28 µg/m ³ | General population | Local |
| | DNEL | Long term Inhalation | 170 µg/m ³ | Workers | Local |
| barium sulfate | DNEL | Long term Inhalation | 10 mg/m ³ | Workers | Local |
| | DNEL | Long term Inhalation | 10 mg/m ³ | General population | Systemic |
| | DNEL | Long term Inhalation | 10 mg/m ³ | Workers | Systemic |
| benzene-1,2,4,5-tetracarboxylic acid, compound with 4,5-dihydro-2-phenyl-1H-imidazole (1:1) | DNEL | Long term Oral | 13000 mg/kg bw/day | General population | Systemic |
| | DNEL | Long term Oral | 0.272 mg/kg bw/day | General population | Systemic |
| | DNEL | Long term Dermal | 0.272 mg/kg bw/day | General population | Systemic |
| | DNEL | Long term Inhalation | 0.473 mg/m ³ | General population | Systemic |
| 1-o-tolylbiguanide | DNEL | Long term Dermal | 0.544 mg/kg bw/day | Workers | Systemic |
| | DNEL | Long term Inhalation | 1.92 mg/m ³ | Workers | Systemic |
| | DNEL | Long term Dermal | 1 mg/kg bw/day | Workers | Systemic |
| | DNEL | Long term Inhalation | 1.47 mg/m ³ | General population | Local |
| | DNEL | Long term Inhalation | 1.47 mg/m ³ | General population | Systemic |
| | DNEL | Long term Oral | 1.67 mg/kg bw/day | General population | Systemic |
| | DNEL | Long term Inhalation | 5.88 mg/m ³ | Workers | Local |
| | DNEL | Long term Inhalation | 5.88 mg/m ³ | Workers | Systemic |
| | DNEL | Short term Inhalation | 8.82 mg/m ³ | General population | Local |
| | DNEL | Short term Inhalation | 8.82 mg/m ³ | General population | Systemic |
| | DNEL | Short term Oral | 10 mg/kg bw/day | General population | Systemic |
| | DNEL | Short term Dermal | 27.8 mg/cm ² | General population | Local |
| | DNEL | Short term Dermal | 27.8 mg/kg bw/day | General population | Systemic |
| DNEL | Short term Inhalation | 35.26 mg/m ³ | Workers | Local | |
| DNEL | Short term Inhalation | 35.26 mg/m ³ | Workers | Systemic | |
| DNEL | Short term Dermal | 55.6 mg/cm ² | Workers | Local | |

SECTION 8: Exposure controls/personal protection

| | | | | | |
|---|------|----------------------|------------------------|--------------------|----------|
| 1h-imidazole, 2-methyl- | DNEL | Short term Dermal | 55.6 mg/kg bw/day | Workers | Systemic |
| | DNEL | Long term Oral | 0.02 mg/kg bw/day | General population | Systemic |
| | DNEL | Long term Dermal | 0.04 mg/kg bw/day | Workers | Systemic |
| 3,9-bis(2,4-di-tert-butylphenoxy)-2,4,8,10-tetraoxa-3,9-diphosphaspiro[5.5]undecane | DNEL | Long term Inhalation | 0.3 mg/m ³ | Workers | Systemic |
| | DNEL | Long term Oral | 0.39 mg/kg bw/day | General population | Systemic |
| | DNEL | Long term Dermal | 0.39 mg/kg bw/day | General population | Systemic |
| | DNEL | Long term Inhalation | 0.68 mg/m ³ | General population | Systemic |
| | DNEL | Long term Dermal | 0.78 mg/kg bw/day | Workers | Systemic |
| | DNEL | Long term Inhalation | 2.75 mg/m ³ | Workers | Systemic |
| Propylidynetrimethanol | DNEL | Long term Inhalation | 3.3 mg/m ³ | Workers | Systemic |
| | DNEL | Long term Oral | 0.34 mg/kg bw/day | General population | Systemic |
| | DNEL | Long term Dermal | 0.34 mg/kg bw/day | General population | Systemic |
| | DNEL | Long term Inhalation | 0.58 mg/m ³ | General population | Systemic |
| | DNEL | Long term Dermal | 0.94 mg/kg bw/day | Workers | Systemic |
| | DNEL | Long term Inhalation | 3.3 mg/m ³ | Workers | Systemic |

PNECs

No PNECs available

8.2 Exposure controls

Appropriate engineering controls

: If user operations generate dust, fumes, gas, vapour or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Individual protection measures

Hygiene measures

: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection

: Safety eyewear complying to ISO 16321-1:2022 should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles and/or face shield. If inhalation hazards exist, a full-face respirator may be required instead.

Skin protection

Hand protection

: There is no one glove material or combination of materials that will give unlimited resistance to any individual or combination of chemicals. The breakthrough time must be greater than the end use time of the product. The instructions and information provided by the glove manufacturer on use, storage, maintenance and replacement must be followed. Gloves should be replaced regularly and if there is any sign of damage to the glove material. Always ensure that gloves are free from defects and that they are stored and used correctly.

SECTION 8: Exposure controls/personal protection

The performance or effectiveness of the glove may be reduced by physical/chemical damage and poor maintenance.
Barrier creams may help to protect the exposed areas of the skin but should not be applied once exposure has occurred.

Wear suitable gloves tested to ISO 374-1:2016.
Recommended, gloves(breakthrough time) > 8 hours: neoprene (> 0.35 mm), PVC (> 0.5 mm), butyl rubber (> 0.4 mm), nitrile rubber (> 0.75 mm)

For right choice of glove materials, with focus on chemical resistance and time of penetration, seek advice by the supplier of chemical resistant gloves.

The user must check that the final choice of type of glove selected for handling this product is the most appropriate and takes into account the particular conditions of use, as included in the user's risk assessment.

- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.
- Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

SECTION 9: Physical and chemical properties

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

9.1 Information on basic physical and chemical properties

Appearance

- Physical state** : Solid. Powder.
- Colour** : Various.
- Odour** : Odourless.
- Odour threshold** : Not applicable.
- Melting point (dust)** : 85 - 115 °C
- Initial boiling point and boiling range** : Not applicable.
- Flammability (solid, gas)** : Fine dust clouds may form explosive mixtures with air.
- Lower explosion limit (dust)** : 30 g/m³
- Minimum ignition energy (mJ)** : 10 - 30 (EN 13821)
- Flash point** :
Not applicable.
- Auto-ignition temperature** : > 400°C
- Decomposition temperature** : >230°C
- pH** : Not applicable.
- Viscosity** : Not applicable.
- Solubility(ies)** :

| Media | Result |
|------------|-------------|
| cold water | Not soluble |
| hot water | Not soluble |

SECTION 9: Physical and chemical properties

Partition coefficient: n-octanol/ water : Not applicable.

Vapour pressure : Not applicable.
Not applicable.

Density : 1.2 to 1.9 g/cm³

Vapour density : Not applicable.

Explosive properties : Not available.

Oxidising properties : Not available.

Particle characteristics

Median particle size : Not available.

9.2 Other information

No additional information.

SECTION 10: Stability and reactivity

10.1 Reactivity : Fine dust clouds may form explosive mixtures with air.

10.2 Chemical stability : The product is stable.

10.3 Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions will not occur.

10.4 Conditions to avoid : Avoid the creation of dust when handling and avoid all possible sources of ignition (spark or flame).
Take precautionary measures against electrostatic discharges.
To avoid fire or explosion, dissipate static electricity during transfer by earthing and bonding containers and equipment before transferring material.
Prevent dust accumulation.

10.5 Incompatible materials : No specific data.

10.6 Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information**11.1 Information on toxicological effects****Acute toxicity**

| Product/ingredient name | Result | Species | Dose | Exposure |
|---|-------------|--------------------|-------------|----------|
| benzene-1,2,4,5-tetracarboxylic acid, compound with 4,5-dihydro-2-phenyl-1H-imidazole (1:1) 1-o-tolylbiguanide | LD50 Oral | Rat | 7400 mg/kg | - |
| | LD50 Dermal | Rat - Male, Female | >3100 mg/kg | - |
| 1h-imidazole, 2-methyl-Propylidynetrimethanol | LD50 Oral | Rat - Male | 2390 mg/kg | - |
| | LD50 Oral | Mouse | 1400 mg/kg | - |
| | LD50 Oral | Rat | 14000 mg/kg | - |

Conclusion/Summary : Not available.

Acute toxicity estimates

| Product/ingredient name | Oral (mg/kg) | Dermal (mg/kg) | Inhalation (gases) (ppm) | Inhalation (vapours) (mg/l) | Inhalation (dusts and mists) (mg/l) |
|--|--------------|----------------|--------------------------|-----------------------------|-------------------------------------|
| 1,2,4,5-benzenetetracarboxylic acid, compd. with 4,5-dihydro-2-phenyl-1h-imidazole (1:1) | 7400 | N/A | N/A | N/A | N/A |
| imidodicarbonimidic diamide, n-(2-methylphenyl)- | 2390 | N/A | N/A | N/A | N/A |
| 1h-imidazole, 2-methyl- | 500 | N/A | N/A | N/A | N/A |
| propylidynetrimethanol | 14000 | N/A | N/A | N/A | N/A |

SECTION 11: Toxicological information

Irritation/Corrosion

| Product/ingredient name | Result | Species | Score | Exposure | Observation |
|---|------------------------|---------|-------|--------------------------|-------------|
| titanium dioxide | Skin - Mild irritant | Human | - | 72 hours | - |
| 1-o-tolylbiguanide | Eyes - Severe irritant | Rabbit | - | 24 hours 100 microliters | - |
| 3,9-bis(2,4-di-tert-butylphenoxy)-2,4,8,10-tetraoxa-3,9-diphosphaspiro[5.5]undecane | Skin - Severe irritant | Rabbit | - | 0.5 Grams | - |

Conclusion/Summary : Not available.

Sensitisation

| Product/ingredient name | Route of exposure | Species | Result |
|-------------------------|-------------------|------------------------------|-------------|
| 1-o-tolylbiguanide | skin | Mammal - species unspecified | Sensitising |

Conclusion/Summary : Not available.

Mutagenicity

Conclusion/Summary : Not available.

Carcinogenicity

Conclusion/Summary : Not available.

Reproductive toxicity

Conclusion/Summary : Not available.

Teratogenicity

Conclusion/Summary : Not available.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on likely routes of exposure : Not available.

Potential acute health effects

- Eye contact** : Causes serious eye damage.
- Inhalation** : No known significant effects or critical hazards.
- Skin contact** : May cause an allergic skin reaction.
- Ingestion** : No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

- Eye contact** : Adverse symptoms may include the following:
pain
watering
redness
- Inhalation** : Adverse symptoms may include the following:
reduced foetal weight
increase in foetal deaths
skeletal malformations

SECTION 11: Toxicological information

- Skin contact** : Adverse symptoms may include the following:
 pain or irritation
 redness
 blistering may occur
 reduced foetal weight
 increase in foetal deaths
 skeletal malformations
- Ingestion** : Adverse symptoms may include the following:
 stomach pains
 reduced foetal weight
 increase in foetal deaths
 skeletal malformations

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Short term exposure

- Potential immediate effects** : Not available.
- Potential delayed effects** : Not available.

Long term exposure

- Potential immediate effects** : Not available.
- Potential delayed effects** : Not available.

Potential chronic health effects

Not available.

- Conclusion/Summary** : Not available.
- General** : Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.
- Carcinogenicity** : No known significant effects or critical hazards.
- Mutagenicity** : No known significant effects or critical hazards.
- Reproductive toxicity** : May damage the unborn child.

Other information : Not available.

SECTION 12: Ecological information

12.1 Toxicity

| Product/ingredient name | Result | Species | Exposure |
|---|---|--|---------------|
| titanium dioxide | Acute LC50 3 mg/l Fresh water | Crustaceans - Ceriodaphnia dubia - Neonate | 48 hours |
| | Acute LC50 6.5 mg/l Fresh water | Daphnia - Daphnia pulex - Neonate | 48 hours |
| | Acute LC50 >1000000 µg/l Marine water | Fish - Fundulus heteroclitus | 96 hours |
| benzene-1,2,4,5-tetracarboxylic acid, compound with 4,5-dihydro-2-phenyl-1H-imidazole (1:1) | Acute EC50 9 mg/l | Algae - Scenedesmus subspicatus | 72 hours |
| | Acute EC50 125 mg/l Chronic NOEC 0.64 mg/l | Crustaceans Algae | 48 hours - |
| 1h-imidazole, 2-methyl- | Acute LC50 286000 to 307000 µg/l Fresh water | Fish - Pimephales promelas | 96 hours |
| | Acute EC10 15.4 mg/l | Algae | 72 hours |
| 3,9-bis(2,4-di-tert-butylphenoxy)-2,4,8,10-tetraoxa-3,9-diphosphaspiro[5.5]undecane | Acute EC50 97 mg/l | Algae | 72 hours |

Guard Shield (A017)

SECTION 12: Ecological information

| | | | |
|--|---|-----------------|---------------------|
| | Acute LC50 70.7 mg/l Chronic NOEC 0.1 mg/l | Fish Daphnia | 96 hours 21 days |
|--|---|-----------------|---------------------|

Conclusion/Summary : This material is harmful to aquatic life with long lasting effects.

12.2 Persistence and degradability

Conclusion/Summary : Not available.

12.3 Bioaccumulative potential

| Product/ingredient name | LogP _{ow} | BCF | Potential |
|---|--------------------|---------|------------|
| benzene-1,2,4,5-tetracarboxylic acid, compound with 4,5-dihydro-2-phenyl-1H-imidazole (1:1) | 1 | - | low |
| 1h-imidazole, 2-methyl-Propylidynetrimethanol | 0.24 -0.47 | - <1 | low low |

12.4 Mobility in soil

Soil/water partition coefficient (K_{oc}) : Not available.

Mobility : Not available.

12.5 Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

12.6 Other adverse effects : No known significant effects or critical hazards.

SECTION 13: Disposal considerations

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

13.1 Waste treatment methods

Product

Methods of disposal : The generation of waste should be avoided or minimised wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.

Hazardous waste : Yes.

Waste list

| Waste code | Waste code definition |
|------------|---|
| 08 01 11* | Waste paint and varnish containing organic solvents or other dangerous substances |

Packaging

Methods of disposal : The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

Special precautions : This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information

| | ADR/RID | ADN | IMDG | IATA |
|---------------------------------|----------------|----------------|----------------|----------------|
| 14.1 UN number | Not regulated. | Not regulated. | Not regulated. | Not regulated. |
| 14.2 UN proper shipping name | - | - | - | - |
| 14.3 Transport hazard class(es) | - | - | - | - |
| 14.4 Packing group | - | - | - | - |
| 14.5 Environmental hazards | No. | No. | No. | No. |

14.6 Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

14.7 Transport in bulk according to IMO instruments : Not available.

SECTION 15: Regulatory information**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture****Turkey Regulation No. 30105. KKDİK****Annex 14 - List of substances subject to authorization****Annex 14**

None of the components are listed.

Substances of very high concern

None of the components are listed.

Annex 17 - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles : Restricted to professional users.

Ozone depleting substances

Not listed.

Regulation on the prevention of major industrial accidents and reduction of their effects

This product is not controlled under the Regulation on the prevention of major industrial accidents and reduction of their effects.

EU regulations**EU Regulation (EC) No. 1907/2006 (REACH)****Annex XIV - List of substances subject to authorisation****Annex XIV**

None of the components are listed.

Substances of very high concern

SECTION 15: Regulatory information

| Intrinsic property | Ingredient name | Status | Reference number | Date of revision |
|-----------------------|-------------------|-----------|--------------------|------------------|
| Toxic to reproduction | 2-methylimidazole | Candidate | D(2020) 4578-DC | 25.06.2020 |

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles : Restricted to professional users.

Prior Informed Consent (PIC) (649/2012/EU)

Not listed.

Persistent Organic Pollutants

Not listed.

International regulations**Chemical Weapon Convention List Schedules I, II & III Chemicals**

Not listed.

Montreal Protocol

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

15.2 Chemical safety assessment : This product contains substances for which Chemical Safety Assessments are still required.

SECTION 16: Other information

✔ Indicates information that has changed from previously issued version.

Abbreviations and acronyms

: ATE = Acute Toxicity Estimate
 EUH statement = SEA-specific Hazard statement
 N/A = Not available
 PBT = Persistent, Bioaccumulative and Toxic
 PNEC = Predicted No Effect Concentration
 SGG = Segregation Group
 vPvB = Very Persistent and Very Bioaccumulative

Procedure used to derive the classification according to regulation SEA: RG.-10/12/2020-31330

| Classification | Justification |
|--|--|
| Eye Dam. 1, H318 Skin Sens. 1, H317 Repr. 1B, H360D Aquatic Chronic 3, H412 | Calculation method Calculation method Calculation method Calculation method |

Full text of abbreviated H statements

SECTION 16: Other information

| | |
|--------|--|
| H302 | Harmful if swallowed. |
| H314 | Causes severe skin burns and eye damage. |
| H317 | May cause an allergic skin reaction. |
| H318 | Causes serious eye damage. |
| H351 | Suspected of causing cancer. |
| H360D | May damage the unborn child. |
| H361fd | Suspected of damaging fertility. Suspected of damaging the unborn child. |
| H410 | Very toxic to aquatic life with long lasting effects. |
| H412 | Harmful to aquatic life with long lasting effects. |

Full text of classifications [SEA/GHS]

| | |
|-------------------|---|
| Acute Tox. 4 | ACUTE TOXICITY - Category 4 |
| Aquatic Chronic 1 | LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 1 |
| Aquatic Chronic 3 | LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 3 |
| Carc. 2 | CARCINOGENICITY - Category 2 |
| Eye Dam. 1 | SERIOUS EYE DAMAGE/EYE IRRITATION - Category 1 |
| Repr. 1B | REPRODUCTIVE TOXICITY - Category 1B |
| Repr. 2 | REPRODUCTIVE TOXICITY - Category 2 |
| Skin Corr. 1C | SKIN CORROSION/IRRITATION - Category 1C |
| Skin Sens. 1 | SKIN SENSITISATION - Category 1 |

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Notice to reader

The information in this document is given to the best of Jotun's knowledge, based on laboratory testing and practical experience. Jotun's products are considered as semi-finished goods and as such, products are often used under conditions beyond Jotun's control. Jotun cannot guarantee anything but the quality of the product itself. Minor product variations may be implemented in order to comply with local requirements. Jotun reserves the right to change the given data without further notice.

Users should always consult Jotun for specific guidance on the general suitability of this product for their needs and specific application practices.

If there is any inconsistency between different language issues of this document, the English (United Kingdom) version will prevail.