

SAFETY DATA SHEET



INFRALIT PE 8640-09 - All variants

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

1.1 Product identifier

Product name : INFRALIT PE 8640-09 - All variants

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

Product use : Paint.

1.3 Details of the supplier of the safety data sheet

Teknos Group Oy, Takkatie 3, FI-00370 HELSINKI, FINLAND. Tel. +358 9 506 091.

e-mail address of person responsible for this SDS : Prod-safe@teknos.com

1.4 Emergency telephone number

National advisory body/Poison Centre

Telephone number : In an emergency, call 112

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition : Mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Not classified.

The product is not classified as hazardous according to Regulation (EC) 1272/2008 as amended.

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

2.2 Label elements

Signal word : No signal word.

Hazard statements : No known significant effects or critical hazards.

Precautionary statements

Prevention : Not applicable.

Response : Not applicable.

Storage : Not applicable.

Disposal : Not applicable.

Supplemental label elements :  Contains Maleic anhydride. May produce an allergic reaction. Safety data sheet available on request.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles : 

2.3 Other hazards

Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII : This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

SECTION 2: Hazards identification

Other hazards which do not result in classification : May form explosible dust-air mixture if dispersed.

SECTION 3: Composition/information on ingredients

3.2 Mixtures : Mixture

Product/ingredient name	Identifiers	%	Classification	Specific Conc. Limits, M-factors and ATEs	Type
Maleic anhydride	REACH #: 01-2119472428-31 EC: 203-571-6 CAS: 108-31-6 Index: 607-096-00-9	<0.001	Acute Tox. 4, H302 Skin Corr. 1B, H314 Eye Dam. 1, H318 Resp. Sens. 1, H334 Skin Sens. 1A, H317 STOT RE 1, H372 (respiratory system) (inhalation) EUH071 See Section 16 for the full text of the H statements declared above.	ATE [Oral] = 400 mg/kg Skin Sens. 1, H317: C ≥ 0.001%	[1]

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, vPvBs or Substances of equivalent concern, or have been assigned a workplace exposure limit and hence require reporting in this section.

Type

 Substance classified with a health or environmental hazard

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

SECTION 4: First aid measures

4.1 Description of first aid measures

- Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur. 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** : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
- Ingestion** : Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training.

4.2 Most important symptoms and effects, both acute and delayed

Over-exposure signs/symptoms

- Eye contact** : No specific data.
- Inhalation** : No specific data.
- Skin contact** : No specific data.
- Ingestion** : No specific data.

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** : No specific fire or explosion hazard.
- Hazardous combustion 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. 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).

6.3 Methods and material for containment and cleaning up

- Small spill** : Move containers from spill area. Vacuum or sweep up material and place in a designated, labelled waste container. Dispose of via a licensed waste disposal contractor.
- Large spill** : Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Vacuum or sweep up material and place in a designated, labelled 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).
- 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. 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. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. See Section 10 for incompatible materials before handling or use.

7.3 Specific end use(s)

- Recommendations** : Not available.
- Industrial sector specific solutions** : Not available.

SECTION 8: Exposure controls/personal protection

The information in this section contains generic advice and guidance. Information is provided based on typical anticipated uses of the product. Additional measures might be required for bulk handling or other uses that could significantly increase worker exposure or environmental releases.

8.1 Control parameters

Occupational exposure limits

Product/ingredient name	Exposure limit values
Aluminium powder (stabilized) Maleic anhydride	Regulation on Limit Values - MAC (Austria, 12/2024) TWA 8 hours: 10 mg/m ³ . Form: Inhalable fraction. PEAK 60 minutes: 20 mg/m ³ 2 times per shift. Form: Inhalable fraction. PEAK 60 minutes: 10 mg/m ³ 2 times per shift. Form: Respirable fraction. TWA 8 hours: 5 mg/m ³ . Form: Respirable fraction. Regulation on Limit Values - MAC (Austria, 12/2024) Inhalation sensitiser , Skin sensitiser. TWA 8 hours: 0.1 ppm. TWA 8 hours: 0.4 mg/m ³ . CEIL 5 minutes: 0.2 ppm 8 times per shift. CEIL 5 minutes: 0.8 mg/m ³ 8 times per shift.
Aluminium powder (stabilized) Maleic anhydride	Limit values (Belgium, 12/2023) [Aluminium (metaal en onoplosbare verbindingen)] TWA 8 hours: 1 mg/m ³ . Form: Respirable fraction. Limit values (Belgium, 12/2023) TWA 8 hours: 0.0025 ppm. Form: vapour and aerosol. TWA 8 hours: 0.01 mg/m ³ . Form: vapour and aerosol.
Aluminium powder (stabilized) Maleic anhydride	Ministry of Labour and Social Policy and the Ministry of Health - Ordinance No 13/2003. (Bulgaria, 4/2024) Limit value 8 hours: 2 mg/m ³ (as Aluminium). Ministry of Labour and Social Policy and the Ministry of Health - Ordinance No 13/2003. (Bulgaria, 4/2024) Limit value 8 hours: 1 mg/m ³ .

SECTION 8: Exposure controls/personal protection

Aluminium powder (stabilized)	Ordinance on the protection of workers from exposure to hazardous chemicals at work, exposure limit values (Annex I) (Croatia, 12/2023) ELV 8 hours: 4 mg/m ³ . Form: Respirable dust. ELV 8 hours: 10 mg/m ³ . Form: total dust, inhalable particles.
Maleic anhydride	Ordinance on the protection of workers from exposure to hazardous chemicals at work, exposure limit values (Annex I) (Croatia, 12/2023) Skin sensitiser, Inhalation sensitiser. STELV 15 minutes: 0.2 ppm. ELV 8 hours: 0.41 mg/m ³ . STELV 15 minutes: 0.8 mg/m ³ . ELV 8 hours: 0.1 ppm.
No exposure limit value known.	
Aluminium powder (stabilized)	Government regulation of Czech Republic PEL/NPK-P (Czech Republic, 12/2023) [hliník a jeho oxidy (s výjimkou gama Al₂O₃)] TWA 8 hours: 10 mg/m ³ . Form: Dust.
Maleic anhydride	Government regulation of Czech Republic PEL/NPK-P (Czech Republic, 12/2023) Sensitiser. TWA 8 hours: 1 mg/m ³ . STEL 15 minutes: 2 mg/m ³ .
Organic dust	Working Environment Authority (Denmark) TWA 8 hours: 3 mg/m ³ .
Aluminium powder (stabilized)	Working Environment Authority (Denmark, 12/2024) TWA 8 hours: 5 mg/m ³ . Form: powder and dust, total. TWA 8 hours: 2 mg/m ³ . Form: powder or dust, respirable. STEL 15 minutes: 4 mg/m ³ . Form: powder or dust, respirable. STEL 15 minutes: 10 mg/m ³ . Form: powder and dust, total.
Maleic anhydride	Working Environment Authority (Denmark, 12/2024) TWA 8 hours: 0.1 ppm. TWA 8 hours: 0.4 mg/m ³ . STEL 15 minutes: 0.8 mg/m ³ . STEL 15 minutes: 0.2 ppm.
Organic dust	Occupational exposure limits, Regulation No. 293 (Estonia) TWA 8 hours: 5 mg/m ³ .
Aluminium powder (stabilized)	Occupational exposure limits, Regulation No. 293 (Estonia, 4/2024) [alumiiniumi lahustuvad ühendid] TWA 8 hours: 2 mg/m ³ .
Maleic anhydride	Occupational exposure limits, Regulation No. 293 (Estonia, 4/2024) [alumiinium, metalliline ja oksiidid] TWA 8 hours: 4 mg/m ³ . Form: Respirable dust. TWA 8 hours: 10 mg/m ³ . Form: Total dust.
No exposure limit value known.	Occupational exposure limits, Regulation No. 293 (Estonia, 4/2024) Sensitiser. TWA 8 hours: 1.2 mg/m ³ . TWA 8 hours: 0.3 ppm. STEL 15 minutes: 2.5 mg/m ³ . STEL 15 minutes: 0.6 ppm.
Organic dust	Institute of Occupational Health, Ministry of Social Affairs (Finland) TWA 8 hours: 5 mg/m ³ . STEL 15 minutes: 10 mg/m ³ .
Aluminium powder (stabilized)	Institute of Occupational Health, Ministry of Social Affairs (Finland, 10/2021) TWA 8 hours: 1.5 mg/m ³ (calculated as Al). Form: Aerosol.
Maleic anhydride	Institute of Occupational Health, Ministry of Social Affairs (Finland, 10/2021) TWA 8 hours: 0.1 ppm. TWA 8 hours: 0.41 mg/m ³ . CEIL: 0.2 ppm.

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Aluminium powder (stabilized)

CEIL: 0.81 mg/m³.

Ministry of Labor (France, 6/2024)

TWA 8 hours: 10 mg/m³. Notes: Permissible limit values (circulars)

TWA 8 hours: 5 mg/m³. Form: powder. Notes: Permissible limit values (circulars)

Maleic anhydride

Ministry of Labor (France, 6/2024) Sensitiser.

STEL 15 minutes: 1 mg/m³. Notes: Permissible limit values (circulars)

Organic dust

DFG MAC-values list (Germany)

TWA 8 hours: 5 mg/m³.

Aluminium powder (stabilized)

TRGS 900 OEL (Germany, 6/2024) [Allgemeiner Staubgrenzwert]

TWA 8 hours: 1.25 mg/m³. Form: Respirable fraction.

PEAK 15 minutes: 20 mg/m³. Form: Inhalable fraction.

TWA 8 hours: 10 mg/m³. Form: Inhalable fraction.

PEAK 15 minutes: 2.5 mg/m³. Form: Respirable fraction.

DFG MAC-values list (Germany, 7/2024) [Aluminium compounds, soluble (non-irritating)] Develop C.

PEAK 15 minutes: 0.01 mg/m³ 4 times per shift [Interval: 1 hour]. Form: inhalable fraction.

TWA 8 hours: 0.005 mg/m³. Form: inhalable fraction.

DFG MAC-values list (Germany, 7/2024) [Aluminium compounds, soluble (irritating)] Develop C.

PEAK 15 minutes: 0.0004 mg/m³ 4 times per shift [Interval: 1 hour]. Form: inhalable fraction.

TWA 8 hours: 0.0002 mg/m³. Form: inhalable fraction.

DFG MAC-values list (Germany, 7/2024) [Aluminium and its poorly soluble compounds] Carc 4, Develop D.

PEAK 15 minutes: 4 mg/m³ 4 times per shift [Interval: 1 hour]. Form: inhalable fraction.

PEAK 15 minutes: 0.4 mg/m³ 4 times per shift [Interval: 1 hour]. Form: respirable fraction.

TWA 8 hours: 0.5 mg/m³. Form: inhalable fraction.

TWA 8 hours: 0.05 mg/m³. Form: respirable fraction.

Maleic anhydride

TRGS 900 OEL (Germany, 6/2024) Inhalation sensitiser , Skin sensitiser.

TWA 8 hours: 0.081 mg/m³.

CEIL: 0.2025 mg/m³.

TWA 8 hours: 0.02 ppm.

CEIL: 0.05 ppm.

PEAK 15 minutes: 0.081 mg/m³.

PEAK 15 minutes: 0.02 ppm.

DFG MAC-values list (Germany, 7/2024) Develop C. Inhalation sensitiser , Skin sensitiser.

TWA 8 hours: 0.02 ppm.

CEIL: 0.05 ml/m³.

TWA 8 hours: 0.081 mg/m³.

CEIL: 0.2 mg/m³.

PEAK 15 minutes: 0.081 mg/m³ 4 times per shift [Interval: 1 hour].

PEAK 15 minutes: 0.02 ppm 4 times per shift [Interval: 1 hour].

Aluminium powder (stabilized)

Presidential Decree 307/1986: Occupational exposure limit values (Greece, 8/2024)

TWA 8 hours: 10 mg/m³ (as Al). Form: Welding fume.

TWA 8 hours: 10 mg/m³. Form: Dust.

Maleic anhydride

Presidential Decree 307/1986: Occupational exposure limit values (Greece, 8/2024)

TWA 8 hours: 0.25 ppm.

TWA 8 hours: 1 mg/m³.

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Aluminium powder (stabilized)	5/2020. (II. 6.) ITM Decree (Hungary, 1/2025) TWA 8 hours: 1 mg/m ³ (as Al). Form: Respirable.
Maleic anhydride	5/2020. (II. 6.) ITM Decree (Hungary, 1/2025) Sensitiser. TWA 8 hours: 0.08 mg/m ³ . PEAK 15 minutes: 0.08 mg/m ³ . PEAK 15 minutes: 0.2 ppm. TWA 8 hours: 0.2 ppm.
Aluminium powder (stabilized)	Ministry of Welfare, List of Exposure Limits (Iceland, 11/2024) [ÁÍ] STEL 15 minutes: 10 mg/m ³ . Form: powder and dust. TWA 8 hours: 5 mg/m ³ . Form: powder and dust.
Maleic anhydride	Ministry of Welfare, List of Exposure Limits (Iceland, 11/2024) [Álreykur] TWA 8 hours: 5 mg/m ³ (as Al). Form: Fume. Ministry of Welfare, List of Exposure Limits (Iceland, 11/2024) Sensitiser. TWA 8 hours: 0.4 mg/m ³ . TWA 8 hours: 0.1 ppm.
Aluminium powder (stabilized)	NAOSH (Ireland, 4/2024) Notes: Advisory Occupational Exposure Limit Values (OELVs) OELV 8 hours: 10 mg/m ³ . Form: inhalable dust. OELV 8 hours: 5 mg/m ³ . Form: fume. OELV 8 hours: 1 mg/m ³ . Form: respirable fraction.
Maleic anhydride	NAOSH (Ireland, 4/2024) Sensitiser. Notes: Advisory Occupational Exposure Limit Values (OELVs) OELV 8 hours: 0.01 ppm. Form: The Inhalable Fraction and Vapour note is used when a material exerts sufficient vapour pressure such that it may be present in both particle and vapour phases..
No exposure limit value known.	
Aluminium powder (stabilized)	Ministers Cabinet Regulations Nr.325 - AER (Latvia, 3/2024) [Alumīnijs un tā sakausējumi] TWA 8 hours: 2 mg/m ³ (as aluminium).
Maleic anhydride	Ministers Cabinet Regulations Nr.325 - AER (Latvia, 3/2024) TWA 8 hours: 1 mg/m ³ .
Aluminium powder (stabilized)	Lithuanian Hygiene Standard HN 23 (Lithuania, 1/2024) [aliuminis ir tirpūs jo junginiai] TWA 8 hours: 1 mg/m ³ (as Al).
Maleic anhydride	Lithuanian Hygiene Standard HN 23 (Lithuania, 1/2024) Sensitiser. TWA 8 hours: 1.2 mg/m ³ . TWA 8 hours: 0.3 ppm. STEL 15 minutes: 2.5 mg/m ³ . STEL 15 minutes: 0.6 ppm.
No exposure limit value known.	
No exposure limit value known.	
No exposure limit value known.	
Organic dust	FOR-2011-12-06-1358 (Norway) TWA 8 hours: 5 mg/m ³ .
Aluminium powder (stabilized)	FOR-2011-12-06-1358 (Norway, 5/2024) TWA 8 hours: 5 mg/m ³ . Form: pyrophoric powder.
Maleic anhydride	FOR-2011-12-06-1358 (Norway, 5/2024) Sensitiser. TWA 8 hours: 0.2 ppm. TWA 8 hours: 0.8 mg/m ³ .

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Organic dust	Regulation of the Minister of Family, Labor and Social Policy of June 12, 2018 on the maximum permissible concentrations and intensities of factors harmful to health in the work environment (Journal of Laws of 2018, item 1286) (Poland) TWA 8 hours: 10 mg/m ³ .
Aluminium powder (stabilized)	Regulation of the Minister of Family, Labor and Social Policy of June 12, 2018 on the maximum permissible concentrations and intensities of factors harmful to health in the work environment (Journal of Laws of 2018, item 1286) (Poland, 7/2024) TWA 8 hours: 2.5 mg/m ³ . Form: Inhalable fraction. TWA 8 hours: 1.2 mg/m ³ . Form: Respirable fraction.
Maleic anhydride	Regulation of the Minister of Family, Labor and Social Policy of June 12, 2018 on the maximum permissible concentrations and intensities of factors harmful to health in the work environment (Journal of Laws of 2018, item 1286) (Poland, 7/2024) Absorbed through skin. TWA 8 hours: 0.5 mg/m ³ . STEL 15 minutes: 1 mg/m ³ .
Aluminium powder (stabilized)	Portuguese Institute of Quality (Portugal, 11/2014) [alumínio e compostos insolúveis] A4. TWA 8 hours: 1 mg/m ³ (expressed as Al). Form: Respirable fraction.
Maleic anhydride	Portuguese Institute of Quality (Portugal, 11/2014) A4. TWA 8 hours: 0.01 mg/m ³ . Form: Inhalable fraction and vapor.
Aluminium powder (stabilized)	HG 1218/2006, Annex 1, with subsequent modifications and additions (Romania, 3/2024) [aluminii și oxizi] VLA 8 hours: 3 mg/m ³ . Form: Dust. Short term 15 minutes: 10 mg/m ³ . Form: Dust. VLA 8 hours: 1 mg/m ³ . Form: Fume. Short term 15 minutes: 3 mg/m ³ . Form: Fume.
Maleic anhydride	HG 1218/2006, Annex 1, with subsequent modifications and additions (Romania, 3/2024) VLA 8 hours: 1 mg/m ³ . VLA 8 hours: 0.25 ppm. Short term 15 minutes: 3 mg/m ³ . Short term 15 minutes: 0.75 ppm.
Aluminium powder (stabilized)	Government regulation SR c. 355/2006 (Slovakia, 6/2024) Inhalation sensitiser. TWA 8 hours: 1.5 mg/m ³ . Form: Respirable fraction. TWA 8 hours: 4 mg/m ³ . Form: Inhalable fraction.
Maleic anhydride	Government regulation SR c. 355/2006 (Slovakia, 6/2024) Sensitiser , Inhalation sensitiser. TWA 8 hours: 0.41 mg/m ³ . TWA 8 hours: 0.1 ppm.
Maleic anhydride	Regulation on protection of workers from the risks related to exposure to chemical substances at work (Slovenia, 4/2024) TWA 8 hours: 0.41 mg/m ³ . TWA 8 hours: 0.1 ppm. KTV 15 minutes: 0.41 mg/m ³ 4 times per shift [time between two exposure events at this concentration must be at least 60 minutes]. KTV 15 minutes: 0.1 ppm 4 times per shift [time between two exposure events at this concentration must be at least 60 minutes].
Aluminium powder (stabilized)	National institute of occupational safety and health (Spain, 1/2024) TWA 8 hours: 1 mg/m ³ . Form: Respirable dust.
Maleic anhydride	National institute of occupational safety and health (Spain, 1/2024) Inhalation sensitiser , Skin sensitiser. TWA 8 hours: 0.1 ppm. TWA 8 hours: 0.4 mg/m ³ .

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Organic dust Aluminium powder (stabilized) Maleic anhydride	Work environment authority Regulation 2018:1 (Sweden) TWA 8 hours: 5 mg/m³. Work environment authority Regulation 2018:1 (Sweden, 11/2022) [aluminium, soluble compounds] TWA 8 hours: 1 mg/m³ (as Al). Form: Total dust. Work environment authority Regulation 2018:1 (Sweden, 11/2022) [aluminium and oxide] TWA 8 hours: 2 mg/m³ (as Al). Form: respirable fraction. TWA 8 hours: 5 mg/m³ (as Al). Form: Total dust. Work environment authority Regulation 2018:1 (Sweden, 11/2022) Sensitiser. TWA 8 hours: 0.05 ppm. TWA 8 hours: 0.2 mg/m³. STEL 15 minutes: 0.1 ppm. STEL 15 minutes: 0.4 mg/m³.
Aluminium powder (stabilized) Maleic anhydride	SUVA (Switzerland, 1/2025) TWA 8 hours: 3 mg/m³. Form: Respirable fraction. SUVA (Switzerland, 1/2025) Sensitiser. TWA 8 hours: 0.1 ppm. Form: vapour and aerosols. TWA 8 hours: 0.4 mg/m³. Form: vapour and aerosols. STEL 15 minutes: 0.1 ppm. Form: vapour and aerosols. STEL 15 minutes: 0.4 mg/m³. Form: vapour and aerosols.
Maleic anhydride	EH40/2005 WELs (United Kingdom (UK), 1/2020) Inhalation sensitiser. STEL 15 minutes: 3 mg/m³. TWA 8 hours: 1 mg/m³.

Biological exposure indices

Product/ingredient name	Exposure indices
Aluminium powder (stabilized) No exposure indices known. No exposure indices known.	VGU BEI (Austria, 9/2020) BEI Fitness: 60 µg/g Kreatinin, aluminium [in urine]. Sampling time: one year.
Aluminium powder (stabilized) No exposure indices known. No exposure indices known. No exposure indices known. No exposure indices known. No exposure indices known. No exposure indices known.	Ordinance on the protection of workers from exposure to hazardous chemicals at work, biological limit values (Annex IV) (Croatia, 12/2023) BEI: 200 µg/l, aluminium [in urine]. Sampling time: at the end of the work shift.
Aluminium powder (stabilized) No exposure indices known.	DFG BEI-values list (Germany, 7/2024) BEI: 50 µg/g creatinine, aluminium [in urine]. Sampling time: at the end of the shift, for long-term exposures after several previous shifts. TRGS 903 - BEI Values (Germany, 10/2024) BEI: 50 µg/g creatinine, aluminum [in urine]. Sampling time: at the end of the shift, for long-term exposure after several previous shifts.

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Aluminium powder (stabilized)	5/2020. (II. 6.) ITM Decree (Hungary, 12/2023) BEI: 0.25 µmol/mmol creatinine, aluminium [in urine]. Sampling time: not critical. BEI: 0.06 mg/g creatinine, aluminium [in urine]. Sampling time: not critical.
No exposure indices known.	
No exposure indices known.	
No exposure indices known.	
Aluminium powder (stabilized)	Minister Cabinet Regulations No.325 - BEI (Latvia, 3/2024) [alumīnijs] BEI: 50 µg/g creatinine, aluminium [in urine]. Sampling time: at the end of the shift after several previous shifts.
No exposure indices known.	
No exposure indices known.	
No exposure indices known.	
No exposure indices known.	
No exposure indices known.	
No exposure indices known.	
No exposure indices known.	
Aluminium powder (stabilized)	HG 1218/2006, Annex 2, with subsequent modifications and additions (Romania, 3/2024) [aluminiiu] OBLV: 200 µg/l, aluminum [in urine]. Sampling time: end of shift.
Aluminium powder (stabilized)	Government regulation SR c. 355/2006 (Slovakia, 6/2024) BLV: 251.8 nmol/mmol creatinine, as aluminum [in urine]. Sampling time: no limitation. BLV: 60 µg/g creatinine, as aluminum [in urine]. Sampling time: no limitation.
No exposure indices known.	
No exposure indices known.	
No exposure indices known.	
Aluminium powder (stabilized)	SUVA (Switzerland, 1/2025) BEI: 50 µg/g creatinine, aluminium [in urine]. Sampling time: with long-term exposure: after several previous shifts. BEI: 0.21 µmol/mmol creatinine, aluminium [in urine]. Sampling time: with long-term exposure: after several previous shifts.
No exposure indices known.	

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

Maleic anhydride

Result

DNEL - General population - Long term - Inhalation

0.05 mg/m³

Effects: Systemic

DNEL - General population - Long term - Oral

0.06 mg/kg bw/day

Effects: Systemic

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DNEL - General population - Long term - Inhalation

0.08 mg/m³

Effects: Local

DNEL - Workers - Long term - Inhalation

0.081 mg/m³

Effects: Local

DNEL - Workers - Long term - Inhalation

0.081 mg/m³

Effects: Systemic

DNEL - General population - Short term - Oral

0.1 mg/kg bw/day

Effects: Systemic

DNEL - General population - Short term - Dermal

0.1 mg/kg bw/day

Effects: Systemic

DNEL - General population - Long term - Dermal

0.1 mg/kg bw/day

Effects: Systemic

DNEL - Workers - Short term - Dermal

0.2 mg/kg bw/day

Effects: Systemic

DNEL - Workers - Long term - Dermal

0.2 mg/kg bw/day

Effects: Systemic

DNEL - Workers - Short term - Inhalation

0.2 mg/m³

Effects: Local

DNEL - Workers - Short term - Inhalation

0.2 mg/m³

Effects: Systemic

PNECs

Not available.

8.2 Exposure controls

Appropriate engineering controls : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

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. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection : Safety eyewear complying with an approved standard 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: safety glasses with side-shields.

Skin protection

SECTION 8: Exposure controls/personal protection

- Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.
Recommendations : Wear gloves according to EN374 to protect against skin effects from powders.
> 8 hours (breakthrough time): Nitrile gloves. thickness > 0.3 mm
- 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.
Filter type: P 2
- 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.
- Colour** : Various
- Odour** : Slight
- Odour threshold** : Not available.
- Melting point/freezing point** : Not available.
- Initial boiling point and boiling range** :

Ingredient name	°C	°F	Method
Aluminium powder (stabilized)	2327	4220.6	

- Flammability** : Not available.
- Lower and upper explosion limit** : Lower: Not applicable.
Upper: Not applicable.
- Flash point** : Closed cup: >100°C (>212°F)
- Auto-ignition temperature** : Not applicable.
- Decomposition temperature** : Not available.
- pH** : Not available.
- Viscosity** : Not available.
- Solubility(ies)** :
Not available.
- Solubility in water** : Not available.
- Partition coefficient: n-octanol/ water** : Not applicable.
- Vapour pressure** : Not available.
- Relative density** : Not available.
- Density** : 1.5 g/cm³
- Vapour density** : Not applicable.

SECTION 9: Physical and chemical properties

Particle characteristics

Median particle size : 35 to 45 µm

9.2 Other information

9.2.1 Information with regard to physical hazard classes

Explosive properties : Not available.

Oxidising properties : Not available.

9.2.2 Other safety characteristics

Not applicable.

SECTION 10: Stability and reactivity

10.1 Reactivity : No specific test data related to reactivity available for this product or its ingredients.

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 : No specific data.

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

Acute toxicity

Product/ingredient name

Maleic anhydride

Result

Rat - Oral - LD50
400 mg/kg

Rabbit - Dermal - LD50
2620 mg/kg

Conclusion/Summary [Product] : 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)
Maleic anhydride	400	2620	N/A	N/A	N/A

Skin corrosion/irritation

Not available.

Conclusion/Summary [Product] : Not available.

Serious eye damage/eye irritation

Product/ingredient name

Maleic anhydride

Result

Rabbit - Eyes - Severe irritant
Amount/concentration applied: 1 %

SECTION 11: Toxicological information

Conclusion/Summary [Product] : Not available.

Respiratory corrosion/irritation

Not available.

Conclusion/Summary [Product] : Not available.

Respiratory or skin sensitization

Not available.

Skin

Conclusion/Summary [Product] : Not available.

Respiratory

Conclusion/Summary [Product] : Not available.

Germ cell mutagenicity

Not available.

Conclusion/Summary [Product] :  Not available.

Carcinogenicity

Not available.

Conclusion/Summary [Product] :  Not available.

Reproductive toxicity

Not available.

Conclusion/Summary [Product] :  Not available.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Product/ingredient name

 Maleic anhydride

Result

STOT RE 1, H372 (respiratory system) (inhalation)

Aspiration hazard

Not available.

Information on likely routes of exposure

Not available.

Potential acute health effects

Eye contact : No known significant effects or critical hazards.

Inhalation : No known significant effects or critical hazards.

Skin contact : No known significant effects or critical hazards.

Ingestion : No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : No specific data.

Inhalation : No specific data.

SECTION 11: Toxicological information

Skin contact : No specific data.

Ingestion : No specific data.

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 [Product] : Not available.

General : No known significant effects or critical hazards.

Carcinogenicity : No known significant effects or critical hazards.

Mutagenicity : No known significant effects or critical hazards.

Reproductive toxicity : No known significant effects or critical hazards.

11.2 Information on other hazards

11.2.1 Endocrine disrupting properties

Not available.

Conclusion/Summary [Product] : ☒ The product does not meet the criteria to be considered as having endocrine disrupting properties according to the criteria set out in either Regulation (EC) No. 1907/2006 or Regulation (EC) No 1272/2008.

11.2.2 Other information

Not available.

SECTION 12: Ecological information

12.1 Toxicity

Product/ingredient name

☒ Maleic anhydride

Result

Acute - LC50 - Fresh water

Fish - Western mosquitofish - *Gambusia affinis* - Adult
230000 µg/l [96 hours]
Effect: Mortality

Conclusion/Summary [Product] : ☒ Not available.

12.2 Persistence and degradability

Not available.

Conclusion/Summary [Product] : ☒ Not available.

12.3 Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
☒ Maleic anhydride	-2.78	-	Low

12.4 Mobility in soil

Soil/water partition coefficient

Product/ingredient name	logK _{oc}	K _{oc}
☒ Maleic anhydride	1.1	11.4841

Results of PMT and vPvM assessment

SECTION 12: Ecological information

Product/ingredient name	PMT	P	M	T	vPvM	vP	vM
Maleic anhydride	No	No	No	No	No	No	No

Mobility : Not available.

Conclusion/Summary : The product does not meet the criteria to be considered as a PMT or vPvM.

12.5 Results of PBT and vPvB assessment

Regulation (EC) No. 1907/2006 [REACH]

Product/ingredient name	PBT	P	B	T	vPvB	vP	vB
Maleic anhydride	N/A	N/A	N/A	Yes	N/A	N/A	N/A

Regulation (EC) No. 1272/2008 [CLP]

Product/ingredient name	PBT	P	B	T	vPvB	vP	vB
Maleic anhydride	No	No	No	No	No	No	No

Conclusion/Summary : The product does not meet the criteria to be considered as a PBT or vPvB.

Regulation (EC) No. 1272/2008 [CLP]

12.6 Endocrine disrupting properties

Not available.

Conclusion/Summary [Product] : The product does not meet the criteria to be considered as having endocrine disrupting properties according to the criteria set out in either Regulation (EC) No. 1907/2006 or Regulation (EC) No 1272/2008.

12.7 Other adverse effects

No known significant effects or critical hazards.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product

Methods of disposal : Avoid release to the environment. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Dispose of contents and container in accordance with all local, regional, national and international regulations.

Hazardous waste : Within the present knowledge of the supplier, this product is not regarded as hazardous waste, as defined by EU Directive 2008/98/EC.

European waste catalogue (EWC) : 080201

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. 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

SECTION 14: Transport information

	ADR/RID	ADN	IMDG	IATA
14.1 UN number or ID 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 Maritime transport in bulk according to IMO instruments : Not relevant/applicable due to nature of the product.

SECTION 15: Regulatory information

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

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

None of the components are listed.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles

Labelling : 

Synthetic polymer microparticles - Designation 78

Generic identity of polymer(s) :  3902 - Polymers of propylene or of other olefins., 3907 - Polyacetals, other polyethers and epoxide resins; polycarbonates, alkyd resins, polyallyl esters and other polyesters.

Total percentage of synthetic polymer microparticles :  50.8%

 The synthetic polymer microparticles supplied is subject to conditions laid down by entry 78 of Annex XVII to Regulation (EC) No 1907/2006 of the European Parliament and of the Council.

Other EU regulations

Industrial emissions (integrated pollution prevention and control) - Air : Listed

Industrial emissions (integrated pollution prevention and control) - Water : Listed

SECTION 15: Regulatory information

Explosive precursors : This product is regulated by Regulation (EU) 2019/1148. All suspicious transactions, and significant disappearances and thefts should be reported to the relevant national contact point.

Ozone depleting substances (EU 2024/590)

Not listed.

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

Not listed.

Persistent Organic Pollutants

Not listed.

Seveso Directive

This product is not controlled under the Seveso Directive.

National regulations

Austria

Limitation of the use of organic solvents : Permitted.

Belgium

Book VI carcinogenic agents annex VI.2-1 - VI.2-3

Ingredient name	Status
Moirs de charbon	Listed

Czech Republic

Storage code : W

Denmark

Fire class : W-1

Executive Order No. 1795/2015

Ingredient name	Annex I Section A	Annex I Section B
Titanium dioxide	Listed	-

MAL-code : 00-1

Protection based on MAL : According to the regulations on work involving coded products, the following stipulations apply to the use of personal protective equipment:

General: Gloves must be worn for all work that may result in soiling. Apron/coveralls/protective clothing must be worn when soiling is so great that regular work clothes do not adequately protect skin against contact with the product. A face shield must be worn in work involving spattering if a full mask is not required. In this case, other recommended use of eye protection is not required.

In all spraying operations in which there is return spray, the following must be worn: respiratory protection and arm protectors/apron/coveralls/protective clothing as appropriate or as instructed.

MAL-code: 00-1

Application: When spraying in existing* spray booths, if the operator is outside the spray zone.

- Arm protectors must be worn.

During all spraying where atomisation occurs in cabins or spray booths where the operator is inside the spray zone and during spraying outside a closed facility, cabin or booth.

- Full mask with combined filter, coveralls and hood must be worn.

SECTION 15: Regulatory information

Drying: Items for drying/drying ovens that are temporarily placed on such things as rack trolleys, etc, must be equipped with a mechanical exhaust system to prevent fumes from wet items from passing through workers' inhalation zone.

Polishing: When polishing treated surfaces, a mask with dust filter must be worn. When machine grinding, eye protection must be worn. Work gloves must always be worn.

Caution The regulations contain other stipulations in addition to the above.

*See Regulations.

- Restrictions on use** : ☒ Not to be used by professional users below 18 years of age. See the National Working Environment Authorities Executive Order regarding Young People At Work.
- List of undesirable substances** : ☒ Not listed
- Carcinogenic waste** : ☒ Waste containers must be labeled: Contains a substance or substances regulated by Danish working environment legislation on cancer risks.

Finland

France

Social Security Code, Articles L 461-1 to L 461-7 : ☒ Maleic anhydride RG 66

Reinforced medical surveillance : ☒ Act of July 11, 1977 determining the list of activities which require reinforced medical surveillance: not applicable

Germany

Storage class (TRGS 510) : 13

Hazardous incident ordinance

This product is not controlled under the Germany Hazardous Incident Ordinance.

Hazard class for water : 1

Technical instruction on air quality control (TA Luft)

Number [Class]	Description	%
5.2.1	Total dust	99.9
5.2.5	Organic substances	0.074
5.2.5 [I]	Organic substances	0.015

Italy

D.Lgs. 152/06 : Not determined.

Netherlands

Ministry of Social Affairs and Employment (SZW) - Carcinogenic substances and processes, mutagenic or reprotoxic substances

Ingredient name	Carcinogen	Mutagen	Reproductive toxicity - Fertility	Reproductive toxicity - Development	Harmful via breastfeeding
☒ aluminiumverbindingen, oplosbaar	-	-	-	Development 1B	Listed

Water Discharge Policy (ABM) : ☒ (3) Hazardous for aquatic organisms, may have long-term hazardous effects in aquatic environment. Decontamination effort: A

Norway

Sweden

Switzerland

VOC content : Exempt.

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

SECTION 15: Regulatory information

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
CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
DMEL = Derived Minimal Effect Level
DNEL = Derived No Effect Level
EUH statement = CLP-specific Hazard statement
N/A = Not available
PBT = Persistent, Bioaccumulative and Toxic
PNEC = Predicted No Effect Concentration
RRN = REACH Registration Number
SGG = Segregation Group
vPvB = Very Persistent and Very Bioaccumulative

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Not classified.

Full text of abbreviated H statements

H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H372	Causes damage to organs through prolonged or repeated exposure.
EUH071	Corrosive to the respiratory tract.

Full text of classifications [CLP/GHS]

Acute Tox. 4	ACUTE TOXICITY - Category 4
Eye Dam. 1	SERIOUS EYE DAMAGE/EYE IRRITATION - Category 1
Resp. Sens. 1	RESPIRATORY SENSITISATION - Category 1
Skin Corr. 1B	SKIN CORROSION/IRRITATION - Category 1B
Skin Sens. 1A	SKIN SENSITISATION - Category 1A
STOT RE 1	SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE - Category 1

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Version : 2

INFRALIT PE 8640-09

All variants

Notice to reader

SECTION 16: Other information

The information in this SDS is based on the present state of our knowledge and on current laws. The product is not to be used for purposes other than those specified under section 1 without first obtaining written handling instructions. It is always the responsibility of the user to take all necessary steps to fulfil the demands set out in the local rules and legislation. The information in this SDS is meant to be a description of the safety requirements for our product. It is not to be considered a guarantee of the product's properties.

