

Safety data sheet according to Regulation (EC) 1907/2006

Printing date: 17.05.2021

Date of compilation / revision: 17.05.2021

Version/revision number: 5

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

- **1.1 Product identifier**
- **Trade name: UBE NYLON 1024IU1**
- **1.2 Relevant identified uses of the substance or mixture**
Uses advised against: MEDICAL APPLICATIONS such as any implantation in the human body or any contact with internal body fluids/tissues are PROHIBITED, since compliance with medical regulations is not assured.
- **Sector of Use**
SU3 Industrial uses: Uses of substances as such or in preparations at industrial sites
- **Application of the substance / the mixture**
Film, injection moulding
Extrusion
- **1.3 Details of the supplier of the safety data sheet**
UBE Corporation Europe, S.A.U.
Polígono El Serrallo s/n
12100 Grao de Castellón (Spain)
Tel: +34 964 73 80 00
SDS.UBE.EU@ube.com
- **Commercial office:**
UBE Corporation Europe, S.A.U.
Immermannstraße 65B
40210 Dusseldorf (Germany)
Tel: +49 211 178 83 28
- **1.4 Emergency telephone number: +44 (0)1235 239670 (24h/7day)**

SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**



Skin Sens. 1 H317 May cause an allergic skin reaction.

- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008**
The product is classified and labelled according to the CLP regulation.
- **Hazard pictograms**



GHS07

- **Signal word** Warning
- **Hazard-determining components of labelling:**
maleic anhydride
- **Hazard statements**
H317 May cause an allergic skin reaction.
- **Precautionary statements**
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

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- P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.
- P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
- P302+P352 IF ON SKIN: Wash with plenty of water.
- P362+P364 Take off contaminated clothing and wash it before reuse.
- P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

- **2.3 Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

SECTION 3: Composition/information on ingredients

- **3.2 Mixtures**
- **Description:** Mixture: consisting of the following components.

- **Dangerous components:**

CAS: 108-31-6 EINECS: 203-571-6 Reg.nr.: 01-2119472428-31-XXXX	maleic anhydride ⚠ Resp. Sens. 1, H334; STOT RE 1, H372; ⚠ Skin Corr. 1B, H314; Eye Dam. 1, H318; ⚠ Acute Tox. 4, H302; Acute Tox. 4, H332; Skin Sens. 1A, H317 Specific concentration limit: Skin Sens. 1A; H317: C ≥ 0.001 %	<0.1%
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- **Non dangerous components**

25038-54-4	Polyamide 6	>85%
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- **Additional information:** For the wording of the listed hazard phrases refer to section 16.

SECTION 4: First aid measures

- **4.1 Description of first aid measures**
- **General information:**
 Take affected persons out into the fresh air.
 Seek medical treatment.
 Immediately remove any clothing soiled by the product.
- **After inhalation:**
 If exposed to vapors from heating and molding material , remove to fresh air .
 If symptoms, coughing and discomfort in nose and throat remain, get medical attention.
 Supply fresh air and to be sure call for a doctor.
 In case of unconsciousness place patient stably in side position for transportation.
- **After skin contact:**
 If redness, itching or burning sensation develops, get medical attention.
 After contact with the molten product, cool rapidly with cold water.
 Do not pull solidified product off the skin.
 Seek medical treatment.
 Immediately wash with water and soap and rinse thoroughly.
- **After eye contact:**
 Immediately flush exposed area with copious amounts of water for at least 15 minutes.
 If redness, itching or burning sensation develops, do not rub eyes and immediately get medical attention.
- **After swallowing:** Rinse out mouth and then drink plenty of water.

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

At molten state, expected to cause burns to skin.

Irreversible dermatitis will occur if you do not wash affected skin immediately and thoroughly.

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

Treatment: Treat according to symptoms (decontamination, vital functions), no known specific antidote.

SECTION 5: Firefighting measures

· 5.1 Extinguishing media
· Suitable extinguishing agents:

Water

Fire-extinguishing powder

Carbon dioxide

Use fire extinguishing methods suitable to surrounding conditions.

· For safety reasons unsuitable extinguishing agents: Not known
· 5.2 Special hazards arising from the substance or mixture

In case of fire, the following can be released:

Carbon monoxide (CO)

 Carbon Dioxide (CO₂)

Under certain fire conditions, traces of other toxic gases cannot be excluded, e.g.:

Maleic anhydride

Hydrogen cyanide (HCN)

 Ammonia (NH₃)

· 5.3 Advice for firefighters
· Protective equipment:

Firefighters should wear appropriate protective equipment

Wear self-contained respiratory protective device.

· Additional information

Cool endangered receptacles with water spray.

Collect contaminated fire fighting water separately. It must not enter the sewage system.

SECTION 6: Accidental release measures

· 6.1 Personal precautions, protective equipment and emergency procedures

Stop leak if you can do so without risk

Remove combustible materials

Ensure adequate ventilation

Use personal protective equipment as indicated in paragraph 8

· 6.2 Environmental precautions: Do not allow to enter sewers/ surface or ground water.
· 6.3 Methods and material for containment and cleaning up:

Sweep up to prevent slipping on polymer pellets

Send for recovery or disposal in suitable receptacles.

Dispose contaminated material as waste according to item 13.

Ensure adequate ventilation.

· 6.4 Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

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SECTION 7: Handling and storage

- **7.1 Precautions for safe handling**

Melted state:

Avoid skin contact with the liquefied material.

Avoid breathing dust/fume/vapours.

Ensure good ventilation/exhaustion at the workplace.

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing

Wash hands before breaks and at the end of work.

Do not eat, drink, smoke or sniff while working.

- **Information about fire - and explosion protection:** No special measures required.

- **7.2 Conditions for safe storage, including any incompatibilities**

- **Storage:**

- **Requirements to be met by storerooms and receptacles:**

Store in cool, dry conditions in well sealed receptacles.

- **Information about storage in one common storage facility:** Not required.

- **Further information about storage conditions:** None.

- **7.3 Specific end use(s)** See item 1.2

SECTION 8: Exposure controls/personal protection

- **8.1 Control parameters**

- **Ingredients with limit values that require monitoring at the workplace:**

108-31-6 maleic anhydride

WEL (Great Britain)	Short-term value: 3 mg/m ³
	Long-term value: 1 mg/m ³
	Sen

- **Additional information:** The lists valid during the making were used as basis.

- **8.2 Exposure controls**

- **Appropriate engineering controls**

Adequate ventilation should be maintained at handling.

Additionally, local exhaust ventilation recommended at melting process.

- **Individual protection measures, such as personal protective equipment**

- **General protective and hygienic measures:**

Immediately remove all soiled and contaminated clothing

Wash hands before breaks and at the end of work.

In accordance with Directive 89/686/EEC on personal protective equipment

- **Respiratory protection:**

Not necessary if room is well-ventilated.

Unnecessary under normal processing

Use suitable respiratory protective device in case of insufficient ventilation.

Wear a respirator conforming to EN140 at least with Type A filter.

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

- **Hand protection**

Molten state:

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Heat protection gloves


Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

- **Material of gloves**

Leather gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

- **Eye/face protection**


Safety glasses

Safety goggles should be worn. At treating hot polymer or molten polymer, face shield should be recommended.

- **Skin and body protection:** Protective work clothing

- **Environmental exposure controls** Prevent the material from spreading into the environment.

SECTION 9: Physical and chemical properties

- **9.1 Information on basic physical and chemical properties**

- **General Information**

· Colour:	Natural
· Odour:	Light
· Odour threshold:	Not applicable
· Melting point/freezing point:	215-225 °C
· Boiling point or initial boiling point and boiling range	Not determined for mixture.
· Flammability	Not determined for mixture.
· Lower and upper explosion limit	
· Lower:	Product does not present an explosion hazard.
· Upper:	Product does not present an explosion hazard.
· Flash point:	Not determined for mixture.
· Auto-ignition temperature:	Not determined for mixture.
· Decomposition temperature:	Not determined for mixture.
· pH	Not applicable because it is a solid mixture
· Viscosity:	
· Kinematic viscosity	Not applicable because it is a solid mixture
· Dynamic:	Not applicable.
· Solubility	
· water:	Insoluble.

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· Partition coefficient n-octanol/water (log value)	Not determined.
· Vapour pressure:	Not applicable.
· Density and/or relative density	
· Density at 20 °C:	1.08 g/cm ³
· Relative density	Not determined for mixture.
· Vapour density	Not applicable because it is a solid mixture

· 9.2 Other information	
· Appearance:	
· Form:	Pellets
· Important information on protection of health and environment, and on safety.	
· Ignition temperature	Not determined for mixture.
· Explosive properties:	Product does not present an explosion hazard.
· Solvent content:	
· Solids content:	100.0 %
· Freezing point	
· Evaporation rate	Not applicable because it is a solid mixture

· Information with regard to physical hazard classes	
· Explosives	None
· Flammable gases	None
· Aerosols	None
· Oxidising gases	None
· Gases under pressure	None
· Flammable liquids	None
· Flammable solids	None
· Self-reactive substances and mixtures	None
· Pyrophoric liquids	None
· Pyrophoric solids	None
· Self-heating substances and mixtures	None
· Substances and mixtures, which emit flammable gases in contact with water	None
· Oxidising liquids	None
· Oxidising solids	None
· Organic peroxides	None
· Corrosive to metals	None
· Desensitised explosives	None

SECTION 10: Stability and reactivity

· **10.1 Reactivity** Stable under ordinary conditions of use and storage.

· **10.2 Chemical stability**

The product is stable if stored and handled as prescribed/indicated
Stable at environment temperature.

· **Thermal decomposition / conditions to be avoided:**

No decomposition if used and stored according to specifications.

· **10.3 Possibility of hazardous reactions**

No hazardous reactions if stored and handled as prescribed/indicated.

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- **10.4 Conditions to avoid**
Avoid heat, flames, sparks and other sources of ignition.
Avoid high temperature
- **10.5 Incompatible materials:** Oxidizing agents, acids, bases and reactive agents.
- **10.6 Hazardous decomposition products:**
Maleic anhydride
Carbon monoxide
Carbon dioxide
Hydrogen cyanide (prussic acid)
Ammonia

SECTION 11: Toxicological information

- **11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008**
- **Acute toxicity** Based on available data, the classification criteria are not met.

- **LD/LC50 values relevant for classification:**

108-31-6 maleic anhydride

Oral	LD50	1,090 mg/kg (rat)
Dermal	LD50	2,620 mg/kg (rabbit)
Inhalative	LC50/4 h	>4.35 mg/l (rat)

- **Skin corrosion/irritation** Based on available data, the classification criteria are not met.
- **Serious eye damage/irritation** No further relevant information available.
- **Respiratory or skin sensitisation**
May cause an allergic skin reaction.
- **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
- **Carcinogenicity** Based on available data, the classification criteria are not met.
- **Reproductive toxicity** Based on available data, the classification criteria are not met.
- **STOT-single exposure** Based on available data, the classification criteria are not met.
- **STOT-repeated exposure** Based on available data, the classification criteria are not met.
- **Aspiration hazard** Based on available data, the classification criteria are not met.
- **Other information (about experimental toxicology):**
Aspiration hazard: No further relevant information available.
- **Additional toxicological information:**
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
Reproductive toxicity: Not classified, based on available data.
- **11.2 Information on other hazards**

- **Endocrine disrupting properties**

None of the ingredients is listed.

SECTION 12: Ecological information

- **12.1 Toxicity**

- **Aquatic toxicity:**

108-31-6 maleic anhydride

NOEC(21d)	10 mg/L (daphnia magna)
EC50(72h)	74.35 mg/L (Pseudokirchnerella subcapitata)
EC50	77 mg/l /21d (daphnia magna)
LC50 (96 h)	75 mg/l (Oncorhynchus mykiss)

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EC50 (48 h) 42.81 mg/l (daphnia magna)

- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Endocrine disrupting properties**
The product does not contain substances with endocrine disrupting properties.
- **12.7 Other adverse effects**
- **Additional ecological information:**
- **General notes:**
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation**
Chemical residues generally count as special waste
Disposal must be made according to official regulations.
Must not be disposed together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packaging:**
- **Recommendation:**
Packaging may contain residues of the product and should be treated accordingly.

SECTION 14: Transport information

<ul style="list-style-type: none"> · 14.1 UN number or ID number · ADR, IMDG, IATA 	Not applicable
<ul style="list-style-type: none"> · 14.2 UN proper shipping name · ADR, IMDG, IATA 	Not applicable
<ul style="list-style-type: none"> · 14.3 Transport hazard class(es) · ADR, ADN, IMDG, IATA · Class 	Not applicable
<ul style="list-style-type: none"> · 14.4 Packing group · ADR, IMDG, IATA 	Not applicable
<ul style="list-style-type: none"> · 14.5 Environmental hazards: · Marine pollutant: 	No
<ul style="list-style-type: none"> · 14.6 Special precautions for user 	Not applicable.
<ul style="list-style-type: none"> · 14.7 Maritime transport in bulk according to IMO instruments 	Not applicable.
<ul style="list-style-type: none"> · Transport/Additional information: 	Not classification assigned

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 · **UN "Model Regulation":** Not applicable

SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Directive 2012/18/EU**
- **Named dangerous substances - ANNEX I** None of the ingredients is listed.
- **15.2 Chemical safety assessment:**
For the mixture:
A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Relevant phrases**
H302 Harmful if swallowed.
H314 Causes severe skin burns and eye damage.
H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.
H332 Harmful if inhaled.
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H372 Causes damage to organs through prolonged or repeated exposure.
- **Training hints**
Specific training of workers to comply with the requirements specified in the Safety Data Sheet is required.
- **Department issuing SDS:** Product Liability group
- **Contact:** Contact with business unit for any issue related to the safety data sheet
- **Abbreviations and acronyms:**
ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
GHS: Globally Harmonised System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
Acute Tox. 4: Acute toxicity – Category 4
Skin Corr. 1B: Skin corrosion/irritation – Category 1B
Eye Dam. 1: Serious eye damage/eye irritation – Category 1
Resp. Sens. 1: Respiratory sensitisation – Category 1
Skin Sens. 1: Skin sensitisation – Category 1
Skin Sens. 1A: Skin sensitisation – Category 1A
STOT RE 1: Specific target organ toxicity (repeated exposure) – Category 1
- **Sources** Safety data sheets of raw material suppliers.
- *** Data compared to the previous version altered.**
Section 2: Updated P phrases.
Section 11: Toxicological data updated
Section 12: Updated the aquatic toxicity data