	MATERIAL SAFETY DATA SHEET	MSDS No.	M-02
	TRIMELLITIC ANHYDRIDE	Effective From	21/03/2023

1. Identification of the substance/mixture and of the company/undertaking

1.1 Product Identifier

Trade name: Trimellitic anhydride

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

Raw material for chemical synthesis

Identified uses

1. Manufacture, processing and distribution of substances and mixtures
2. Polymer manufacturing
3. Ester manufacture
4. Use in laboratories

1.3 Details of the supplier of the safety data sheet

Company name: BloomchemAG BV

Telephone: +917291999329

2. Hazards identification

2.1 Classification according to the substance or mixture Classification according to EC regulation 1272/2008 (CLP):

Eye Dam. 1; H318	Causes serious eye damage.
Resp. Sens. 1; H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Skin Sens. 1; H317	May cause an allergic skin reaction.
STOT SE 3; H335	May cause respiratory irritation.

Classification according to directive 67/548/EEC

R 37	Irritating to respiratory system.
R 41	Risk of serious damage to eyes.
R 42/43	May cause sensitization by inhalation and skin contact.

2.2 Label elements

Label (CLP)



GHS05



GHS07



GHS08

Signal word

Danger

Hazard statements:

H317: May cause an allergic skin reaction.
H318: Causes serious eye damage.
H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335: May cause respiratory irritation

Precautionary statements:

P363: Wash contaminated clothing before reuse.P321:

Specific treatment (see... on this label).

P333+P313: If skin irritation or rash occurs: Get medical advice/attention.P302+P352:

IF ON SKIN: Wash with plenty of soap and water.

P272: Contaminated work clothing should not be allowed out of the workplace.

P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P501: Dispose of contents/container to hazardous or special waste collection point.

P342+P311: If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.

P304+P341: IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.

P285: In case of inadequate ventilation wear respiratory protection.P405: Store locked up.

P261: Avoid breathing dust/fume/gas/mist/vapours/spray.

P280: Wear protective gloves/protective clothing/eye protection/face protection. P310: Immediately call a POISON CENTER or doctor/physician.

3. Composition/information on ingredients

3.1 Substances

Chemical characterization (substance): C9 H4 O5

CAS-Number : 552-30-7

EINECS-Number : 209-008-0

RTECS-Number : DC2050000

EU-number : 607-097-00-4

4. First aid measures

4.1 Description of the first aid measures

General information: If you feel unwell, seek medical advice.

After inhalation Move victim to fresh air, if necessary, provide artificial respiration or oxygen. Seek medical attention.

After skin contact When in contact with the skin, clean with soap and water. Change contaminated clothing. In case of skin irritation, consult a physician.

After eye contact In case of contact with eyes, immediately flush eyes with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Seek the attention of an ophthalmologist immediately.

After swallowing Rinse mouth immediately and drink plenty of water. Seek medical attention.

4.2 Most important symptoms and effects, both acute and delayed

No data available.

4.3 Indication of any immediate medical attention and special treatment needed

No special measures are required.

5. Fire fighting measures

5.1 Extinguishing media

Suitable extinguishing media:

water fog, Extinguishing powder, alcohol resistant foam, carbon dioxide.

Extinguishing media which must not be used for safety reasons:

full water jet

5.2 Special hazards arising from the substance or mixture

Combustible. In case of strong heating: Vapours form explosive mixtures with air. Emits toxic fumes under fire conditions.

In case of fire maybe liberated: Carbon monoxide and carbon dioxide.

5.3 Advice for firefighters

Special protective equipment for firefighters:

Wear self-contained breathing apparatus. To avoid contact with skin, keep safety distance

and wear suitable protective clothing.

Additional information: Hazchem-code: -

Do not allow fire water to penetrate into surface or ground water.

6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Provide adequate ventilation. Do not breathe dust.

Wear protective equipment. Avoid contact with skin and eyes.

6.2 Environmental precautions:

Do not allow to enter ground water, sewage or drains.

6.3 Methods and material for containment for cleaning up:

Collect dry and place in appropriate containers for disposal, cleaning. Avoid generation of dust.

6.4 Reference to other sections

Not required

7. Handling and storage

7.1 Precautions for safe Handling

Advices for safe handling:

Provide adequate ventilation, and local exhaust as needed. Do not breathe dust. Wear protective equipment. Avoid contact with skin and eyes.

Precautions against fire and explosion:

In case of strong heating: Vapours form explosive mixtures with air. Keep away from heat sources, sparks and open flames.

Keep away from sources of ignition - No smoking.

7.2 Conditions for safe Storage, including any incompatibilities

Requirements for storerooms and containers:

Keep container tightly closed and dry. Provide adequate ventilation. Protect from humidity and water.

Storage class: 11= Combustible solids

7.3 Specific end use(s)

No data available

8. Exposure controls / Personal protection equipment

8.1 Control parameters

Type	Limit Value
WEL (= German AGW) (Smoke: measured as the respirable fraction of the aerosol)	0,04 mg/m ³
WEL-TWA	0,04 mg/m ³
WEL-STEL	0,12 mg/m ³

Additional information: Limitation of exposure peaks - category I (Local irritants): Peak level 2 x WEL - Maximum duration per shift: 5 min., momentary value - Maximum frequency per shift: 8.

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Workers, short term:

DNEL, dermal: 10mg/kg bw/d.
NOAEL, dermal, 1000 mg/kg bw/d
DNEL, inhalative: 35 mg/m³
NOAEC, inhalative: 3500 mg/ m³

Workers, long term:

DNEL, dermal: 5mg/kg bw/d.
NOAEL, dermal, 1000 mg/kg bw/d
DNEL, inhalative: 17,5 mg/m³
NOAEC, inhalative: 3500 mg/ m³

Consumers, Short term: DNEL,
dermal: 5mg/kg bw/d. NOAEL,
dermal, 1000 mg/kg bw/d DNEL,
inhalative: 8,8 mg/m³
NOAEC, inhalative: 1760 mg/ m³
DNEL, oral, 5mg/kg bw/d.
NOAEL, oral, 1000 mg/kg bw/d

Consumers, Long term:

DNEL, dermal: 2,5 mg/kg bw/d.
NOAEL, dermal, 1000 mg/kg bw/d
DNEL, inhalative: 4,4 mg/m³
NOAEC, inhalative: 1760 mg/ m³
DNEL, oral, 2,5mg/kg bw/d.
NOAEL, oral, 1000 mg/kg bw/d

PNEC water (freshwater): 0,739mg/L. PNEC water
(marine water): 0,739mg/L. PNEC water
(intermittent release): 7,39mg/L. PNEC sediment
(freshwater): 4,97mg/kg dwt.
PNEC sediment (marine water): 0,497mg/kg dwt. PNEC
sewage treatment plant: 10 mg/L.

8.2 Exposure controls

Provide adequate ventilation, and local exhaust as needed.

Occupational exposure controls

All information for relevant exposure scenarios including operational conditions and risk management measures are listed in 'Annex 1: Worker Exposure and Risk Assessment'

Respiratory protection: Respiratory protection must be worn whenever the WEL levels have been exceeded.

Use filter type A-(P2) according to EN 141.

Hand protection: Protective gloves according to EN 374.

Glove material: Nitrile rubber-Layer thickness: 0,11 mm.

Breakthrough time: >480 min.

Observe glove manufacturer's instructions concerning penetrability and breakthrough time.

Eye protection: Tightly sealed safety glasses according to EN 166.

Skin protection: Wear suitable protective clothing.

General protection and hygiene measures:

Execute works under fume hood. Do not breathe dust. Avoid contact with skin and eyes.

When using do not eat, drink or smoke.

Change contaminated clothing. Wash hands before breaks and after work. Recommendation:

Preventive skin protection.

Work place should be equipped with a shower and an eye rinsing apparatus.

Environmental exposure controls

All information for relevant exposure scenarios including operational conditions and risk management measures are listed in 'Annex III: Environmental Exposure and Risk Assessment'.

9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state:	solid
Colour:	colourless up to beige
Odour:	type specific
Boiling temperature / boiling range	390 °C
Melting point / melting range	167.2 °C
Flash point / flash point range:	227 °C(c.c.)
Vapour pressure:	at 20 °C: negligible
Density:	at 20 °C, approx. 1,49 g/ml
Water Solubility:	at 20 °C: Decomposition 24,4 g/ml
Partition coefficient n-octanol water:	at 20 °C: 0,06 log P(o/w)
	Bio-accumulation is not to be expected (log P(o/w) < 1)

9.2 Other information

Molecular weight: 192,13

10. Stability and reactivity

10.1 Reactivity

No data available

10.2 Chemical stability

Hygroscopic

10.3 Possibility of hazardous reactions

No data available

10.4 Conditions to avoid:

Protect from excessive heat. In case of strong heating: Vapours form explosive mixtures with air.
Protect from humidity and water.

10.5 Incompatible materials

Violent reaction with: water, acetic acid, strong acid, strong bases

10.6 Hazardous decomposition products:

In case of fire:
Carbon monoxide and carbon dioxide

11. Toxicological information

11.1 information on Toxicological effects:

Acute toxicity: LD50 Rat, oral: > 2730 mg/kg
 LD50 Rabbit, dermal: 23000 mg/kg
 LC50 Rat, inhalative: > 7,4 mg/L/4h

After inhalation: Mucous membrane irritation, coughing, shortage of breath.
 May cause sensitization by inhalation.

After skin contact: May cause sensitization by skin contact.

After eye contact: Strongly irritant. Risk of serious damage to eyes.

General remarks

Systemic effects: nausea, fever, amyosthenia, asthma.

12. Ecological information

12.1 Toxicity

Aquatic toxicity: Harmful effects on water organisms by modification of pH-value.
 Bacterial toxicity: EC50 Bacteria: 100-500 mg/L/3h (OECD209).Daphnia
 toxicity: EC50 Daphnia magna: >792 mg/L/48h
 Fish toxicity: LC50 Leuciscus idus: >896 mg/L/96h

Water Hazard Class: 2 = water pollutant

12.2 Persistence and degradability

Further details: Biological degradation: 77,4 %/28d (OECD 301 B).
 Product is easily biodegradable.

12.3 Bioaccumulative potential

Partition coefficient n-octanol water:
 At 20 °C: 0.06 log P (o/w)
 Bio-accumulation is not to be expected (log P(o/w) < 1)

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

No data available

12.6 Other adverse effects

Do not allow to penetrate into soil, waterbodies or drains.

13. Disposal considerations

13.1 Water treatment methods

Product

Waste key number 070199 = Wastes from the manufacture, formulation, supply and use (MFSU) of basic organic chemicals
 MFSU = manufacture, formulation, supply and use

Recommendation: Incinerate as hazardous waste according to applicable local, state, and federal regulations.

Contaminated packaging

Recommendation: Waste disposal according to official state regulations.
 Handle contaminated packaging in the same way as the substance itself. Cleaned containers may be recycled.

- 14.1 UN number** Not applicable
- 14.2 UN proper shipping name**
ADR/RID, IMDG, IATA: Not restricted
- 14.3 Transport Hazard class(es)** Not applicable
- 14.4 Packing group** Not Applicable.
- 14.5 Environmental hazards**
Marine Pollutant Unknown
- 14.6 Special precautions for user** No dangerous good in sense of transport regulations.
- 14.7 Transport in bulk according to Annex II of MARPOL 73/78 and IBC Code** No Data Available

15. Regulatory information

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

National regulations – Great Britain

Hazchem-code: -

National regulations

National regulations - Germany

Storage class: 11= Combustible solids

Water Hazard Class: 2 = water pollutant

National regulations - USA

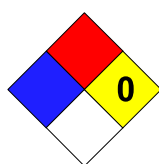
TSCA Inventory: listed TSCA

HPVC: not listed NIOSH

Recommendations:

Occupational Health Guideline: 0635

Hazard rating
systems



NFPA Hazard Rating:

Health: 2 (Moderate)

Fire: 1 (Slight)

Reactivity: 0 (Minimal)

HMIS Version III Rating:

Health: 2 (Moderate)

Flammability: 1 (Slight)

Physical Hazard: 0 (Minimal)

Personal Protection: X = Consult your supervisor

HEALTH	2
FLAMMABILITY	1
PHYSICAL HAZARD	0
	X

15.2 Chemical Safety Assessment

For this substance a chemical safety assessment has been carried out.

16. Other information

Further remarks

Reason of change: Changes Legal

Entity Literature:

Group that issues data sheet

Contact person: see chapter 1, department responsible for information.

The information in this data sheet has been established to our best knowledge and was up-to-date at time of revision. It does not represent a guarantee for the properties of the product described in terms of the legal warranty regulations.