

Safety Data Sheet

Maleic Anhydride

Version 1.3

Revision Date: 06/12/2025

SECTION 1. IDENTIFICATION

Product name : Maleic Anhydride

Synonyms : Cis-butenedioic anhydride; Maleic acid anhydride; Dihydro-2,5-dioxofuran; Toxilic anhydride; 2,5-Furandione

Recommended use of the chemical and restrictions on use

Recommended use : Manufacture of plasticizers.
Manufacture of resins.

Restricted Uses : No data available

Manufacturer or supplier's details

Company : Univar Solutions Canada Ltd.
Address : 64 Arrow Road
North York, ON, M9M 2L9
Canada

Emergency telephone number:

Local Emergency Contact : During Office hours Monday-Friday, 8.00 am - 4.30 pm (Pacific Standard Time) : 1-866-686-4827

Additional Information: : Responsible Party: Product Compliance Department
E-mail: SDSNA@univarsolutions.com
SDS Requests: 1-855-429-2661
Website: www.univarsolutions.com

SECTION 2. HAZARD IDENTIFICATION

Hazardous Classification of the substance or mixture

Acute toxicity (Oral) : Category 4

Skin corrosion : Category 1

Serious eye damage : Category 1

Respiratory sensitisation : Sub-category 1A

Skin sensitisation : Sub-category 1A

Specific target organ toxicity - repeated exposure : Category 1 (Respiratory system, Kidney)

Label elements

Hazard pictograms :



Signal word : Danger

Hazard statements : May form combustible dust concentrations in air.
H302 + H312 Harmful if swallowed or in contact with skin.

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H314 Causes severe skin burns and eye damage.
H317 May cause an allergic skin reaction.
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H372 Causes damage to organs through prolonged or repeated exposure.

Precautionary statements : **Prevention:**
P260 Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.
P264 Wash skin thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P272 Contaminated work clothing should not be allowed out of the workplace.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
P284 Wear respiratory protection.

Response:
P301 + P312 + P330 IF SWALLOWED: Call a POISON CENTER/ doctor if you feel unwell. Rinse mouth.
P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.
P304 + P340 + P310 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/ doctor.
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/ doctor.
P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.
P342 + P311 If experiencing respiratory symptoms: Call a POISON CENTER/ doctor.
P362 + P364 Take off contaminated clothing and wash it before reuse.

Storage:
P405 Store locked up.

Disposal:
P501 Dispose of contents/ container to an approved waste disposal plant.

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Substance

Hazardous components

CAS-No.	Chemical name	% by Weight	Synonyms
108-31-6	Maleic anhydride	90 - 100	Maleic anhydride

The exact ranges of this mixture are being withheld due to a Trade Secret.

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Molecular formula : C₄H₂O₃

SECTION 4. FIRST-AID MEASURES

General advice	: Consult a physician. Show this safety data sheet to the doctor in attendance.
If inhaled	: Call a physician or poison control centre immediately. If unconscious, place in recovery position and seek medical advice.
In case of skin contact	: Immediate medical treatment is necessary as untreated wounds from corrosion of the skin heal slowly and with difficulty. If on skin, rinse well with water. If on clothes, remove clothes.
In case of eye contact	: Small amounts splashed into eyes can cause irreversible tissue damage and blindness. In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Continue rinsing eyes during transport to hospital. If eye irritation persists, consult a specialist.
If swallowed	: Take victim immediately to hospital. Keep respiratory tract clear. Do NOT induce vomiting. Never give anything by mouth to an unconscious person.
Most important symptoms and effects, both acute and delayed	: Harmful if swallowed. May cause an allergic skin reaction. Causes serious eye damage. May cause allergy or asthma symptoms or breathing difficulties if inhaled. Causes damage to organs through prolonged or repeated exposure. Causes severe burns.
Notes to physician	: Treat symptomatically

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media	: Carbon dioxide (CO ₂) Foam Water spray Dry powder
Unsuitable extinguishing media	: High volume water jet
Specific hazards during fire-fighting	: Do not allow run-off from fire fighting to enter drains or water courses.
Hazardous combustion products	: Carbon oxides Nitrogen oxides (NO _x) Smoke Unburned hydrocarbons
Specific extinguishing method	: Use a water spray to cool fully closed containers.

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ods	
Further information	: Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.
Special protective equipment for firefighters	: Wear self-contained breathing apparatus for firefighting if necessary.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	: Use personal protective equipment. Avoid dust formation. Avoid breathing dust. Ensure adequate ventilation.
Environmental precautions	: Prevent product from entering drains. Prevent further leakage or spillage if safe to do so. If the product contaminates rivers and lakes or drains inform respective authorities.
Methods and materials for containment and cleaning up	: Keep in suitable, closed containers for disposal.

SECTION 7. HANDLING AND STORAGE

Advice on protection against fire and explosion	: Avoid dust formation. Provide appropriate exhaust ventilation at places where dust is formed.
Advice on safe handling	: Avoid formation of respirable particles. Do not breathe vapours/dust. Avoid exposure - obtain special instructions before use. Avoid contact with skin and eyes. For personal protection see section 8. Smoking, eating and drinking should be prohibited in the application area. Provide sufficient air exchange and/or exhaust in work rooms. Dispose of rinse water in accordance with local and national regulations. Persons susceptible to skin sensitisation problems or asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this mixture is being used.
Conditions for safe storage	: Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Observe label precautions. Electrical installations / working materials must comply with the technological safety standards.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

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CAS-No.	Components	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
108-31-6	Maleic anhydride	TWA	0.1 ppm 0.4 mg/m ³	CA AB OEL
		TWA	0.1 ppm	CA BC OEL
		TWAEV (inhalable fraction and vapour)	0.01 mg/m ³	CA QC OEL

Personal protective equipment

Respiratory protection : In the case of dust or aerosol formation use respirator with an approved filter.
Dust safety masks are recommended when the dust concentration is more than 10 mg/m³.
No personal respiratory protective equipment normally required.

Hand protection

Remarks : The suitability for a specific workplace should be discussed with the producers of the protective gloves.

Eye protection : Eye wash bottle with pure water
Tightly fitting safety goggles
Wear face-shield and protective suit for abnormal processing problems.

Skin and body protection : Dust impervious protective suit
Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Hygiene measures : When using do not eat or drink.
When using do not smoke.
Wash hands before breaks and at the end of workday.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : solid, crystalline
Colour : clear, white
Odour : sharp odor, pungent
Odour Threshold : 1 - 1.3 ppm

pH : 7 @ 1 %
Freezing Point (Melting point/range) : 52.8 °C (127.0 °F)
Boiling Point (Boiling point/boiling range) : 202 °C (396 °F)
Flash point : 103.3 - 120 °C (217.9 - 248 °F)

Evaporation rate : No data available
Flammability (solid, gas) : No data available
Upper explosion limit : 7.1 %(V)

Lower explosion limit : 1.4 %(V)

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Vapour pressure	: 0.16 mmHg @ 20 °C (68 °F)
Relative vapour density	: 3.38
Relative density	: 1.48
Density	: No data available
Water solubility	: No data available
Solubility in other solvents	: No data available
Partition coefficient: n-octanol/water	: No data available
Auto-ignition temperature	: 477 °C
Thermal decomposition	: No data available

SECTION 10. STABILITY AND REACTIVITY

Reactivity	: No dangerous reaction known under conditions of normal use.
Chemical stability	: Stable under normal conditions.
Possibility of hazardous reactions	: Dust may form explosive mixture in air.
Conditions to avoid	: Keep away from heat, flame, sparks and other ignition sources. Exposure to moisture Exposure to air. Exposure to water vapour.
Incompatible materials	: Strong oxidizing agents Reducing agents Acids Alkali metals Amines Metals strong alkalis Ammonia Ammonia solution Alcohols carbonates Aluminium Zinc
Hazardous decomposition products	: nitrogen oxides Carbon monoxide, carbon dioxide and unburned hydrocarbons (smoke). maleic acid and maleic anhydride

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity

Harmful if swallowed.

Product:

Acute oral toxicity : Acute toxicity estimate: > 2,000 mg/kg

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Assessment: The component/mixture is moderately toxic after single ingestion.

Acute dermal toxicity : Assessment: The substance or mixture has no acute dermal toxicity

Components:

108-31-6:

Acute oral toxicity : LD50 (Rat): 1,090 mg/kg
Assessment: The component/mixture is moderately toxic after single ingestion.

Skin corrosion/irritation

Causes severe burns.

Product:

Remarks: Extremely corrosive and destructive to tissue.

Components:

108-31-6:

Species: Rabbit
Result: Causes burns.

Serious eye damage/eye irritation

Causes serious eye damage.

Product:

Remarks: Risk of serious damage to eyes.

Respiratory or skin sensitisation

Skin sensitisation: May cause an allergic skin reaction.

Respiratory sensitisation: May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Product:

Remarks: Causes sensitisation.

Components:

108-31-6:

Species: Guinea pig
Result: The product is a respiratory sensitiser, sub-category 1A.

Species: Rat
Result: The product is a skin sensitiser, sub-category 1A.

Germ cell mutagenicity

Not classified due to lack of data.

Carcinogenicity

Not classified due to lack of data.

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Reproductive toxicity

Not classified due to lack of data.

STOT - single exposure

Not classified due to lack of data.

STOT - repeated exposure

Causes damage to organs (Respiratory system, Kidney) through prolonged or repeated exposure.

Components:

108-31-6:

Target Organs: Respiratory system

Assessment: The substance or mixture is classified as specific target organ toxicant, repeated exposure, category 1.

Target Organs: Kidney

Assessment: Shown to produce significant health effects in animals at concentrations of 10 mg/kg bw or less.

Aspiration toxicity

Not classified due to lack of data.

Further information

Product:

Remarks: No data available

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Components:

108-31-6:

Toxicity to fish	: LC50 (Oncorhynchus mykiss (rainbow trout)): 75 mg/l Exposure time: 96 h Test Type: static test
Toxicity to daphnia and other aquatic invertebrates	: EC50 (Daphnia magna (Water flea)): 85 mg/l Exposure time: 48 h Test Type: static test Test substance: Non neutralised product
Toxicity to algae	: EC50 (Pseudokirchneriella subcapitata (green algae)): 74.35 mg/l End point: Growth rate Exposure time: 72 h Test Type: static test Test substance: Information given is based on data obtained from similar substances.
Toxicity to daphnia and other aquatic invertebrates (Chron-	: NOEC (Daphnia magna (Water flea)): 10 mg/l Exposure time: 21 d

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ic toxicity)

Acute aquatic toxicity- Assessment : Harmful to aquatic life.

Chronic aquatic toxicity- Assessment : This product has no known ecotoxicological effects.

Persistence and degradability

No data available

Bioaccumulative potential

No data available

Mobility in soil

No data available

Other adverse effects

Product:

Additional ecological information : An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.
Harmful to aquatic life with long lasting effects.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues : Dispose of in accordance with all applicable local, state and federal regulations.
For assistance with your waste management needs - including disposal, recycling and waste stream reduction, contact Univar Solutions ChemCare: 1-800-637-7922

Contaminated packaging : The product should not be allowed to enter drains, water courses or the soil.
Do not contaminate ponds, waterways or ditches with chemical or used container.
Send to a licensed waste management company.
Empty remaining contents.
Dispose of as unused product.
Do not re-use empty containers.

SECTION 14. TRANSPORT INFORMATION

TDG (Transportation of Dangerous Goods):

UN2215, Maleic anhydride, 8, III

IATA (International Air Transport Association):

UN2215, Maleic anhydride, 8, III

IMDG (International Maritime Dangerous Goods):

UN2215, MALEIC ANHYDRIDE, 8, III, Flash Point: 103.3 - 120 °C (217.9 - 248 °F)

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SECTION 15. REGULATORY INFORMATION

This product has been classified according to the hazard criteria of the Hazardous Products Regulations (HPR) and the SDS contains all of the information required by the HPR.

NPRI Components : 108-31-6

The components of this product are reported in the following inventories:

TSCA : All substances listed as active on the TSCA inventory

AIIC : On the inventory, or in compliance with the inventory

DSL : All components of this product are on the Canadian DSL

ENCS : On the inventory, or in compliance with the inventory

KECI : On the inventory, or in compliance with the inventory

PICCS : On the inventory, or in compliance with the inventory

IECSC : On the inventory, or in compliance with the inventory

NZIoC : On the inventory, or in compliance with the inventory

SECTION 16. OTHER INFORMATION

The information accumulated is based on the data of which we are aware and is believed to be correct as of the date hereof. Since this information may be applied under conditions beyond our control and with which we may be unfamiliar and since data made become available subsequently to the date hereof, we do not assume any responsibility for the results of its use. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances. This SDS has been prepared by Univar Solutions EHS Product Compliance Department (1-855-429-2661) SDSNA@univarsolutions.com.

Revision Date : 06/12/2025

Material number:
612761, 704173

Key or legend to abbreviations and acronyms used in the safety data sheet			
ACGIH	American Conference of Government Industrial Hygienists	LD50	Lethal Dose 50%
AIIC	Australia Inventory of Industrial Chemicals	LOAEL	Lowest Observed Adverse Effect Level
DSL	Canada, Domestic Substances List	NFPA	National Fire Protection Agency
NDSL	Canada, Non-Domestic Substances List	NIOSH	National Institute for Occupational Safety & Health

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CNS	Central Nervous System	NTP	National Toxicology Program
CAS	Chemical Abstract Service	NZIoC	New Zealand Inventory of Chemicals
EC50	Effective Concentration	NOAEL	No Observable Adverse Effect Level
EC50	Effective Concentration 50%	NOEC	No Observed Effect Concentration
EGEST	EOSCA Generic Exposure Scenario Tool	OSHA	Occupational Safety & Health Administration
EOSCA	European Oilfield Specialty Chemicals Association	PEL	Permissible Exposure Limit
EINECS	European Inventory of Existing Chemical Substances	PICCS	Philippines Inventory of Commercial Chemical Substances
MAK	Germany Maximum Concentration Values	PRNT	Presumed Not Toxic
GHS	Globally Harmonized System	RCRA	Resource Conservation Recovery Act
>=	Greater Than or Equal To	STEL	Short-term Exposure Limit
IC50	Inhibition Concentration 50%	SARA	Superfund Amendments and Reauthorization Act.
IARC	International Agency for Research on Cancer	TLV	Threshold Limit Value
IECSC	Inventory of Existing Chemical Substances in China	TWA	Time Weighted Average
ENCS	Japan, Inventory of Existing and New Chemical Substances	TSCA	Toxic Substance Control Act
KECI	Korea, Existing Chemical Inventory	UVCB	Unknown or Variable Composition, Complex Reaction Products, and Biological Materials
<=	Less Than or Equal To	WHMIS	Workplace Hazardous Materials Information System
LC50	Lethal Concentration 50%		