SOLVENT SYSTEMS International, Inc.
Environmental Services

Offer Sheet

Product	Maleic Anhydride
Quantity	14 pallets (50 lb. bags)
Net weight	~32,200 lbs.
Availability	Spot load
Location	NY
Manufactured	
Date	11/3/26
COA & SDS	See below



Some product is hardened from exposure to dampness





If interested, please call or text:

Brian Svrusis
Solvent Systems International
575 Bennett Road
Elk Grove Village, IL 60007
847-323-6718 call or text
Click here for: Surplus Inventory
Solvent-Systems.com

CERTIFICATE OF ANALYSIS

Yongsan Chemical

HEAD OFFICE

273.HANGANG-DAERO ,YONGSAN-GU, SEOUL,KOREA
(YONGSAN B/D 10F)
TEL. : (02)3274-9100
FAX. : (02)718-9111

PLANT

PETROCHEMICAL COMPLEX
32 SAPYEONG-RO, NAM-GU,ULSAN,KOREA
PO BOX : 68 ULSAN
TEL. : (052)226-8800
FAX. : (052)226-8859

Elantas PO 4500189330

Product
MALEIC ANHYDRIDE

LOT NO
C256-053

Manufacturing date
2025.02.11

ORIGINAL

ITEM	Unit	Specification	Result	Test Method
APPEARANCE	-	WHITE BRIQUET TYPE	WHITE BRIQUET TYPE	VISUAL
MOLTEN COLOR	APHA	20 MAX	8	JIS K 1359
PURITY (TOTAL ACID)	wt%	99.5 MIN	99.91	JIS K 1359
SOLIDIFICATION POINT	℃	52.5 MIN	52.6	JIS K 1359
HEATED COLOR	APHA	40 MAX	15	2hr at 140℃
ASH	wt%	0.001 MAX	0.0006	JIS K 1359
MALEIC ACID	wt%	-	0.07	Titration with 0.02N Ethylpiperidine
IRON	ppm	1 MAX	<1	Absorption Spectrophotometry

Daniele Masseroni approved unapproved Manufacturer Material (Distributor changed name)

Dominic Hatalla 10/02/2025

YONGSAN CHEMICAL INC.

K. J. KIM PRESIDENT

Approved By :
Quality Control

CERTIFICATE OF ANALYSIS

Yongsan Chemical

HEAD OFFICE

273.HANGANG-DAERO ,YONGSAN-GU, SEOUL,KOREA
(YONGSAN B/D 10F)
TEL. : (02)3274-9100
FAX. : (02)718-9111

PLANT

PETROCHEMICAL COMPLEX
32 SAPYEONG-RO, NAM-GU,ULSAN,KOREA
PO BOX : 68 ULSAN
TEL. : (052)226-8800
FAX. : (052)226-8859

Elantas PO 4500189330

Product
MALEIC ANHYDRIDE

LOT NO
C256-099

Manufacturing date
2025.03.04

ORIGINAL

ITEM	Unit	Specification	Result	Test Method
APPEARANCE	-	WHITE BRIQUET TYPE	WHITE BRIQUET TYPE	VISUAL
MOLTEN COLOR	APHA	20 MAX	8	JIS K 1359
PURITY (TOTAL ACID)	wt%	99.5 MIN	99.92	JIS K 1359
SOLIDIFICATION POINT	℃	52.5 MIN	52.7	JIS K 1359
HEATED COLOR	APHA	40 MAX	15	2hr at 140℃
ASH	wt%	0.001 MAX	0.0006	JIS K 1359
MALEIC ACID	wt%	-	0.06	Titration with 0.02N Ethylpiperidine
IRON	ppm	1 MAX	<1	Absorption Spectrophotometry

Daniele Masseroni approved unapproved Manufacturer Material (Distributor changed name)

Dominic Hatalla 10/02/2025

YONGSAN CHEMICAL INC.

K. J. KIM PRESIDENT

Approved By :
Quality Control

Safety Data Sheet

Maleic Anhydride

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Trade name **Maleic Anhydride**

Synonyms MA; Maleic Anhydride Molten; Maleic ANyhydride Pastilles; 2.5-Furandione.
Cis-Butenedioic anhydride.

Company Name: TRInternational, Inc.
Address: Seattle, WA 98101
Phone: +1-206-505-3500 Fax: +1-206-505-3501

Emergency Phone Numbers: CONTACT INFOTRAC 1-800-535-5053 (24 hours) Acct # 79932
001-352-323-3500 (24 hours) Acct # 79932

2. HAZARD IDENTIFICATION

Most Important Hazards

Health Effects: Eye Contact: Corrosive. Dust or vapor cause burns or irritation of the eyes with swelling. Sensitivity to light and double vision may occur.
Skin Contact: Corrosive. May not cause immediate burning of the skin. But prolonged contact with moist skin cause reddening and blistering or burns.
Inhalation: Inhalation of dust or vapor may cause irritation of the nose and throat. Coughing sneezing and burning of the throat may be experienced. Can cause allergic respiratory reactions.

Environment Effects: stimulus

Physical and chemical hazards：white solid/colorless liquid, stimulation with acidic taste
Special hazards: Long-term exposure to the respiratory tract and skin vulnerable to damage
The main symptoms: stimulate、burns、sneezing、difficulty breathing、vomit

Hazard classification: 8 (corrosive substance)
Hazard Labels: 8

Signal Word: Danger
Pictograms:



3. COMPOSITION/INFORMATION ON INGREDIENTS

CAS Number	Content (W/W)	Chemical name
00108-31-6	Min. 99.5wt %	Maleic Anhydride

4. FIRST-AID MEASURES

Different routes of exposure of first-aid

EYE CONTACT：Immediately flush eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical attention immediately.

SKIN CONTACT：Immediately flush eyes with plenty of soap and water while Removing contaminated clothing and shoes. Wash clothing before Reuse. Call a physician immediately.

INHALATION：Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give OXYGEN. Call a physician.

INGESTION：Induse vomiting immediately as directed by medical personnel. Never give any thing by mouth to an unconscious person.

The most symptoms and harmful effects：stimulate、burns、sneezing、difficulty breathing、vomit
Protection of emergency personnel：Impervious gloves、Reduce contact
For doctor prompt：Consider gastric laveage in patients with swallowing； Give OXYGEN inhalation

5. FIRE-FIGHTING MEASURES

EXTINGUISHING MEDIA：Water, alcohol foam or carbon dioxide.
NOTE:DO NOT USE dry chemical or loaded stream media because of Explosion potential due to reactivity of basic compounds in these extinguishing media.
SPECIAL FIRE-FIGHTING PROCEDURES：Use water spray to cool tanks or drums Exposed to fire. Evacuate area and keep personnel Upwind. Better to use personal gas-mask to avoid irritant.
HAZARDOUS COMBUSTION PRODUCTS：Do not use “Sodium hydrogencarbonate”as extinguishing media.
SPECIAL PROTECTIVE EQUIPMENT FOR FIREFIGHTERS：Goggle、Protective masks、 Impervious equipment.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions：Remove all sources of ignition. Ventilate area of leak or spill.Wear appropriate personal protective equipment as specified in Sec.8. Environmental precautions：Prevent spills from entering sewers, watercourses or low areas.
Methods for cleaning up：Absorb spill with inert material (e.g. dry sand or earth),then place in a chemical waste containers using non-sparking tools. Flush residual spill (area) with copious amounts of water. Neutralize the rest with alkali.

7. HANDLING AND STORAGE

Handling：Wewr proper protective equipment. Keep away from heat, sparks, and flame.
Avoid rough handling or dropping. Avoid generating mist or dust. Eye wash and safety shower should be available nearby when this product is handled or used.
Storage solid ：Store in a cool, dry, well-ventilated location.
Liquid: Store in stainless steel tank grounded positively and keep temperature at 55~65℃.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Engineering controls：ventilation: a. local exhaust ventilation b. general dilution ventilation
Control parameter

TWA	STEL	CEILING	BEI
0.25PPM	0.75PPM	--	Rats devour LD50=400PPM

Personal protection:
Hand protection：Impervious gloves
Eye protection：Safety goggles
Skin and body protection：Chemical resistant full-body suit and rubber boots
Health measures：
1. Not to be used on edible product
2. After work remove the contaminated clothing as soon as possible, wash before reuse or discard,inform the dangers of contaminated laundry staff.
3. Smoking and eating are prohibited in the workplace.
4. After dealing with this matter need to wash hand thoroughly.
5. Maintain workplace clean.

9. PHYSICAL AND CHEMICAL PROPERTIES

Substance state：	solid
PH value：	2.42(0.01M solution) Ignition temperature（℃）： 477
Vapor pressure（mmHg 25℃）：	0.2
Density：	1.43g/cm3(Solid) 1.3g/cm3(Liquid at 80℃)
Appearance：	Colorless liquid or white pellet
Odor：	irritating spicy
Boiling point（℃）：	202
Melting point（℃）：	52.8
Flash point（℃）：	100~110
Flammable limits(in air vol%)：	lower:1.4 upper:7.1
Vapor density(air=1)：	3.38
Solubility：	40g/100ml(25℃)

10. STABILITY AND REACTIVITY

Stability and reactivity：Maleic anhydride reacts with water or moist air form maleic acid and heat. If kept dry, product is stable under normal condition of storage and use.
Materials to avoid：Alkali metal ions and amines. At temperature above 150℃, these materials(at concentration as low as 200PPM) can trigger a rapid decomposition and polymerization reaction which will produce heat and gas and many cause Equipment to rupture.
Hazardous decomposition products (except burning)：carbon monoxide (CO).

11. TOXICOLOGICAL INFORMATION

Irritation:
EYE ：(Rabbit) 1% severe
Acute Toxicity:
Oral LD50(rat) 400mg/kg LD50(mouse) 465mg/kg LD50(rabbit) 875mg/kg
Skin LD50(rabbit) 875mg/kg
LC50： Chronic Toxicity：
ORAL：Rats were fed maleic anhydride at condition of 10, 32 and 100mg/kg/day for 2 years. No toxicological effects were observed.

Inhalation:
Rats, hamsters and monkeys were exposed to anhydride at atmospheric concentration of 1.1, 3.3 and 9.8mg/m3 for 6 months as inhalation toxic studies. No toxicological effects for their whole body were observed, but the signs of irritation to their nose and eyes, such as secretion, sneezing and cough, were observed.
Mutagenicity : Negative in the Ames test.

12. ECOLOGICAL INFORMATION

Persistence and biodegradability: This product is not expected to persistent in the environment. This product is estimated to have a moderate rate of biodegradation.
Ecotoxicity: Fish toxicity : 48hr TLM (Mosquito fish) 240mg/kg

13. DISPOSAL CONSIDERATIONS

Maleic anhydride is readily soluble in water and forms maleic acid which when neutralized,forms a sodium maleate solution which is ready oxidization biologically. Material may be incinerated or buried in an approved RCRA hazardous waste landfill. (RCRA Hazardous Waste No. 147). Local state and federal regulations should be followed in disposing of this material.

14. TRANSPORTATION INFORMATION

UN CLASS：8
UN NUMBER：UN2215
Follow all regulations in your country.
Special safety information and condition for delivery:
Please refer to Section 7. Especially, the molten product should be charge into the tank lorry with preheating it enough and should be confirmed at more upper temperature than its freezing point 52.8℃ in unloading.

15. REGULATORY INFORMATION

Applicable laws and regulations：
1. Waste should be according to the “Waste Disposal Act” requirements and the relevant laws
2. Hazardous materials of general rules.

16. OTHER INFORMATION

To our actual knowledge, the information contained herein is accurate as of the date of this document. However, neither TRInternational, Inc., nor any of its affiliates makes any warranty, express or implied, or accepts any liability in connection with this information or its use. This information is for use by technically skilled persons at their own discretion and risk and does not relate to the use of this product in combination with any other substance or any other process. This information gives typical properties only and is not to be used for specification purposes. TRInternational, Inc. reserves the right to make additions, deletions or modifications to the information at any time without prior notification.

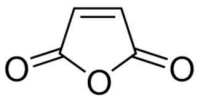
Maleic Anhydride

Chemical Formula : $C_4H_2O_3$

Molecular Weight : 98.06

CAS No. : 108-31-6

Structure Formula :





1. Specification

Item	Unit	Specification	Test Methods
Appearance	-	White Briquet Type	Visual
Molten Color	APHA	20 Max.	JIS K 1359
Purity (Total Acid)	wt%	99.5 Min.	JIS K 1359
Solidification Point	℃	52.5 Min.	JIS K 1359
Heated Color	APHA	40 Max	2hours at 140℃
Ash	wt%	0.001 Max.	JIS K 1359
Iron	ppm	1 Max.	Absorption Spectrophotometry

Note) JIS : Japanese Industrial Standards

2. Country of Origin

■ **Republic of Korea**

3. Packing

■ **25kg Bag**

Net 25kg 4-ply kraft paper bag including one polyethylene film bag innermost.

■ **500kg, 600kg Bag**

Net 500Kg(600kg) polypropylene-woven flexible container(FLECON) with one polyethylene film bag innermost.

Yongsan Chemicals, Inc. *Office : 273, Hangang-daero, Yongsan-gu, Seoul, Korea(Yongsan B/D 10F)*
(Tel : 82-2-3274-9100 Fax : 82-2-718-9111)
Factory : Petrochemical Complex, 32 Sapyeong-ro, Nam-gu, Ulsan, Korea
(Tel : 82-52-226-8800 Fax : 82-52-226-8859)

4. Lot Code Explanation

■ **25kg**

Ex) CN6-001

C : Maleic Anhydride Product Code

N : Year Code 6 : Packing Bag

001 : Lot Serial Number

■ **500kg, 600kg**

Ex) CNP-6001

C : Maleic Anhydride Product Code

N : Year Code P : Packing Bag

6 : Briquet 500kg (8 : Briquet 600kg)

001 : Lot Serial Number

5. Shelf life

: We hereby certify that the shelf life of our Maleic Anhydride is 6months. from manufacturing date as the following conditions.

(1) Avoid multi-stacking on top of each other.

(2) Avoid long term storage.

(3) Avoid direct sunlight.

(4) Store in dry and good air ventilating place.

(5) Isolate from alkali metal, amine and acidic materials.

(6) Refer to MSDS for other categories

6. Physical Property (for Reference)

Item		Unit	Value
Boiling Point		℃	202
Specific Gravity(at 20/20℃,Solid) (at 70/70℃,Molten)		-	1.48 1.3
Heat of formation		kJ/mol	-470.41
Heat of combustion		kJ/mol	-1,390
Heat capacity		kJ/(kg.K)	1.21 (Solid) 1.67 (Liquid)
Heat of vaporization		kJ/mol	54.8
Heat of hydrolysis		kJ/mol	-34.9
Heat of neutralization		kJ/mol	126.9
Flash Point		℃	110 (Open Cup) 102 (Closed Cup)
Solubility in solvent	Acetone (at 25℃)	g/100g	227
	Benzene (at 25℃)	g/100g	50
	o-xylene (at 25℃)	g/100g	19.4
Vapor Pressure	at 44.0℃	kPa	0.13
	at 63.4℃	kPa	0.67
	at 95.0℃	kPa	2.7
	at 135.8℃	kPa	13.3
	at 179.5℃	kPa	53.3
	at 202.0℃	kPa	100

7. Applications

- **Unsaturated Polyester Resins**
- **Alkyd Resins**
- **Paper Sizing**
- **Plasticizers**
- **Agricultural Chemicals**
- **Oil Additives**
- **Paint, Ink**
- **Surfactant**

Raw Material Specification

RMC – 06M6320
MALEIC ANHYDRIDE

PRODUCT DESCRIPTION:

Maleic Anhydride
CAS No. 108-31-6

PLANNED USE:

Polyester Resins

APPROVED SUPPLIERS:

Sasol-Huntsman GmbH
Huntsman Petrochemical Corp.
Magna-Kron corp, LTD
Repsol YPF (The Chemical Co and Monson - distributors)
Catalynt
Brenntag (distributor)
JLM Industries Inc.
Yongsam

STORAGE AND SHELF LIFE:

Room temperature storage.
Shelf life indefinite if kept sealed and dry.

INCOMING SAMPLING & INSPECTION:

No sample needed. Check COT.

SPECIFICATIONS:

VENDOR COT REQUIRMENTS

PROPERTY	SPECIFICATION	TEST METHOD	TM
Assay	99.5% min.	---	---
Solidification Point	52.5 min.	---	---

ADDITIONAL PROPERTIES (LOT CERTIFICATION NOT REQUIRED)

PROPERTY	SPECIFICATION	TEST METHOD	TM
Solidification Point	52.5 min.	---	644.0

CERTIFICATE OF TEST:

The supplier shall submit with each shipment a certificate of test showing the material conforms to this specification. It shall include results for testing performed on each batch/lot included in the shipment.

MARKING:

Each container shall be clearly marked with the manufacturer's product designation, lot number, and part number.

After approval no changes in composition or manufacturing method shall be made by the manufacturer without prior written approval by Elantas.

CURRENT REVISION CHANGE NOTES:

Revision #	
3	Add Supplier (01/17/1997)
4	Initial Issue of document into QSI, Update supplier & add CAS No. (04/30/2002)
5	Add Magna-Kron, (having supply issues with Huntsman) (05/04/2003)
6	Add Repsol YPF (01/27/2005)
7	Add TRInternational, Inc. (06/22/2008)
8	Add Brenntag (distributor) (05/01/2008)
9	Add JLM Industries (12/03/2008)
10	Add Sasol – Huntsman to approved supplier list (03/05/2013)
11	General Review (01/23/2023)
12	Change TRInternational to Catalynt and add Yongsam to supplier list, upload to Intellaquest (12/05/2025)
13	Removed Von Roll reference due to company name change. (03/20/2026)