SAFETY DATA SHEET

1. Identification

Product identifier	**TRIMELLITIC ANHYDRIDE**
Other means of identification	
SDS number	9434
Synonyms	TMA * TMA LOA
Recommended use	Industrial manufacture of polymers and esters.
Recommended restrictions	Other uses are not recommended unless an assessment is completed, prior to commencement of that use, which demonstrates that the use will be controlled.
Manufacturer Information	INEOS Joliet, LLC 23425 Amoco Road Channahon, IL 60410 United States
Telephone numbers - 24 hour emergency assistance	
Chemtrec (US)	800-424-9300
Telephone numbers - general assistance	
24 HR (7 DAYS):	866-400-4343
(8-5 M-F, CST) SDS Assistance:	815-467-3360

2. Hazard(s) identification

Physical hazards	Not classified.	
Health hazards	Serious eye damage/eye irritation	Category 1
	Sensitization, respiratory	Category 1
	Sensitization, skin	Category 1
	Specific target organ toxicity, single exposure	Category 3 respiratory tract irritation
Environmental hazards	Not classified.	
OSHA defined hazards	Combustible dust	

Label elements

Signal word Danger

Hazard statement Causes serious eye damage. May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause an allergic skin reaction. May cause respiratory irritation. May form combustible dust concentrations in air if converted to small particles during further processing, handling, or by other means.

Precautionary statement

Prevention Avoid breathing dust. In case of inadequate ventilation wear respiratory protection. Use only outdoors or in a well-ventilated area. Contaminated work clothing should not be allowed out of the workplace. Wear protective gloves/protective clothing/eye protection/face protection.

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

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

IF ON SKIN: Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention.

Immediately call a POISON CENTER or doctor/physician. Specific treatment (see first aid instruction on this label). Take off contaminated clothing and wash it before reuse.

Storage Store in a well-ventilated place. Keep container tightly closed. Store locked up.

Disposal Dispose of contents/container in accordance with local/regional/national/international regulations.

Hazard(s) not otherwise classified (HNOC) Not classified.

Supplemental information

Precautionary statement(s)

Hazard statement May form combustible dust concentrations in air if converted to small particles during further processing, handling, or by other means. This material may accumulate electrostatic charge which may cause an electrical spark (ignition source) in some cases.

Prevention Prevent dust accumulation to minimize explosion hazard. Ground/bond container and receiving equipment. Take precautionary measures against static discharge. Clean up spilled material immediately.

MEDICAL SURVEILLANCE: It is FHR's opinion that an effective medical surveillance program for TMA is essential to the prevention of illness as a result of over-exposure to TMA in the workplace. A medical surveillance program may include a thorough medical history and periodic physical exams with emphasis on pulmonary function and allergies. Sensitization to TMA is an immune-mediated effect. A blood test is available to detect and measure antibodies to TMA which can be helpful in predicting and confirming TMA-related illness. Additional information is described in FHR's TMA Bulletin TM-135.

3. Composition/information on ingredients

Substances

Chemical name	Common name and synonyms	CAS number	%
TRIMELLITIC ANHYDRIDE	5-Isobenzofurancarboxylic acid, 1,3-dihydro-1,3-dioxo- TMA	552-30-7	100

Composition comments This Safety Data Sheet is intended to communicate potential health hazards and potential physical hazards associated with the product(s) covered by this sheet, and is not intended to communicate product specification information. For product specification information, contact your INEOS Joliet, LLC representative.

4. First-aid measures

Inhalation

Remove to fresh air. If not breathing, institute rescue breathing. If breathing is difficult, ensure airway is clear and give oxygen. If heart has stopped, immediately begin cardiopulmonary resuscitation (CPR).

Keep affected person warm and at rest. GET IMMEDIATE MEDICAL ATTENTION.

Skin contact

Immediately wash skin with plenty of soap and water after removing contaminated clothing and shoes. Get medical attention if irritation develops or persists.

Contaminated clothing should be vacuumed with a HEPA-type filter or sprayed with water to prevent the spread of dust. Launder clothing before re-use.

Eye contact

Flush immediately with large amounts of water for at least 15 minutes. Eyelids should be held away from the eyeball to ensure thorough rinsing. GET IMMEDIATE MEDICAL ATTENTION.

Ingestion

Rinse mouth. If ingestion of a large amount does occur, call a poison control center immediately. Do not use mouth-to-mouth method if victim ingested the substance. Do not induce vomiting because of danger of aspirating liquid into lungs, causing serious damage and chemical pneumonitis. If spontaneous vomiting occurs, keep head below hips to prevent aspiration and monitor for breathing difficulty. Never give anything by mouth to an unconscious person. Keep affected person warm and at rest. GET IMMEDIATE MEDICAL ATTENTION.

Most important symptoms/effects, acute and delayed

INHALATION:
Trimellitic anhydride (TMA) is a respiratory sensitizer. In susceptible individuals, i.e., those that have developed antibodies to TMA, repeated inhalation of dust or vapor may result in an immediate onset of asthma-like symptoms (coughing, sneezing, tightness in the chest, and wheezing) or delayed respiratory effects.

SKIN:
Contact may cause reddening, itching and inflammation. May cause an allergic reaction in some individuals. Skin contact may cause harmful effects in other parts of the body.

EYES:
May cause severe eye irritation with pain, tearing, burning feeling, sensitivity to light, swelling and possible corneal damage.

INGESTION:
Swallowing this material may be harmful. May cause irritation of the mouth, throat and gastrointestinal tract. Symptoms may include salivation, pain, nausea, vomiting and diarrhea.

Indication of immediate medical attention and special treatment needed

Keep victim under observation. Symptoms may be delayed.

INHALATION: Acute asthmatic reactions to TMA should be treated like acute asthma from any cause. If the patient is cyanotic or acutely dyspneic, consider supplemental oxygen and systemic corticosteroids. The primary treatment for the late onset respiratory systemic syndrome (TMA flu) is systemic corticosteroids plus antipyretics and bronchodilators as needed.

General information

INHALATION SENSITIZATION HAZARD Avoid breathing dust. Keep unnecessary personnel away. Local authorities should be advised if significant spillage cannot be contained. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.

5. Fire-fighting measures

Suitable extinguishing media

Small Fires: CO2, dry chemical, dry sand, alcohol-resistant foam.

Large Fires: Water spray, fog or alcohol resistant foam.

Unsuitable extinguishing media

Small Fires: Do not use water. Large Fires: Do not use a solid water stream as it may scatter and spread fire.

Specific hazards arising from the chemical

Combustion may produce COx and other decomposition products in the case of incomplete combustion.

Material will burn in a fire. Fire will produce irritating, corrosive and/or toxic gases.

This material, in its finely divided form, presents an explosion hazard when dispersed in a confined or unconfined area in a sufficient concentration and ignited in air. Ignition of a dust cloud in an unconfined area may result in a fireball. Ignition of a dust cloud in a confined space may result in a pressure buildup in equipment.

This material may accumulate static charge which can cause an electrical spark (ignition source) in some cases. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material.

See Combustible Dust Property data in Section 9.

For additional safety information, consult the current editions of the National Fire Protection Association (NFPA) 654 Standard for the Prevention of Fire and Dust Explosions from the Manufacturing, Processing, and Handling of Combustible Particulate Solids, NFPA 499, Recommended Practice for the Classification of Combustible Dusts and of Hazardous (Classified) Locations for Electrical Installations in Chemical Process Areas, NFPA 77, Recommended Practice on Static Electricity, and NFPA 68, Standard on Explosion Protection by Deflagration Venting.

Special protective equipment and precautions for firefighters

Do not add water to anhydride. Water applied directly results in evolution of heat and conversion to acid. Acid can react with metals to liberate flammable hydrogen gas, especially when diluted with water. Always stay away from tanks engulfed in flame. Evacuate area and fight fire from a safe distance.

Use water spray to cool adjacent structures and to protect personnel. Do not get water inside containers. Shut off source of flow, if possible.

Firefighters must wear NIOSH approved positive pressure breathing apparatus (SCBA) with full face mask and full protective equipment.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

FOR NON-EMERGENCY PERSONNEL: INHALATION SENSITIZATION HAZARD Avoid inhalation of dust. Local authorities should be advised if significant spillages cannot be contained. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.

FOR EMERGENCY RESPONDERS: INHALATION SENSITIZATION HAZARD Eliminate and/or shut off ignition sources and keep ignition sources out of the area. Keep unnecessary people away; isolate hazard area and deny entry. For spills in confined areas, ensure adequate ventilation. For spills outdoors, stay upwind. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. IF TANK, RAILCAR OR TANK TRUCK IS INVOLVED IN A FIRE, isolate for 800 meters (1/2 mile) in all directions. Evacuate area endangered by release as required. See Exposure Controls/Personal Protection (Section 8).

Methods and materials for containment and cleaning up	For large spills and releases follow the handling and storage recommendations as detailed in EN 14491, EN 14373, EN 14797, and EN 15089 or follow recommendations as provided by guidance for your country or region. Grounding, bonding, and intrinsic safety of equipment used should be considered. Keep unnecessary people away. Isolate area for at least 50 meters (164 feet) in all directions to preserve public safety. For large spills, if downwind consider initial evacuation for at least 60 meters (200 feet). For small spill, sweep up or vacuum up spillage and collect in suitable container for disposal. Avoid dust formation. Use approved industrial vacuum cleaner for removal or use non-sparking tools to collect spillage. Grounding, bonding, and intrinsic safety of equipment used should be considered. Avoid cleanup procedures that may result in water pollution. Prevent or minimize formation of a dust cloud or layer during cleanup. For large spills and releases follow recommendations as provided by guidance for your country or region. For personal protection in case of a large spill, use chemical/dust goggles, face shield, boots, and gloves. If concentration is unknown, a Self-Contained Breathing Apparatus (SCBA) should be used to avoid inhalation of the material. A respirator that will protect against organic vapor and dust/mist may be used where concentrations are known and the respirator's assigned protection factor is adequate. Do not touch or walk through spilled material. Stop spill when safe to do so. See Exposure Controls/Personal Protection, Section 8, Disposal Considerations, Section 13. This material, in its finely divided form, presents an explosion hazard when dispersed in a confined area and ignited in air. For large spills and releases follow the handling and storage recommendations as detailed in NFPA 654, NFPA 499 and NFPA 77. Grounding, bonding, and intrinsic safety of equipment used should be considered. See Exposure Controls/Personal Protection, Section 8, Disposal Considerations, Section 13.
Environmental precautions	Prevent entry into water ways, sewers, basements or confined areas. Notify local authorities and National Response Center, if required.

7. Handling and storage

Precautions for safe handling

Minimize dust generation during handling and contact.

This material, as produced and not in its finely divided form as dust, is not explosive as defined by established regulatory criteria.

This material, in its finely divided form, presents an explosion hazard when dispersed in a confined area and ignited in air.

Dusts may become explosive when dispersed in a confined space such as a building or vessel and in the presence of oxygen and heat (spark).

This material may accumulate electrostatic charge which may cause an electrical spark (ignition source) in some cases.

Ground and bond lines and equipment used during transfer to reduce the possibility of static spark-initiated fire or explosion. When airborne dust or a dust cloud is present, do not cut, grind, drill, weld or reuse containers unless adequate precautions are taken against these hazards. Use non-sparking tools. Do not use electronic devices while handling, unless the device is certified as intrinsically safe as they could present ignition sources.

Facilities using this material should assess their potential for combustible dust and static spark hazards and follow applicable federal, state and local laws and regulations and accepted codes and standards.

Avoid accumulation of dust on surfaces and hidden areas where dust may collect in the interior of buildings to minimize secondary dust explosion potential. Clean up dust using approved methods that do not generate dust clouds if ignition sources are present. Combustible dust properties are dependent on the moisture content and particle size distribution of the tested material as received. Customers are encouraged to perform testing for explosibility potential for dust accumulated at their site. This data is provided in section 9 as an indicator of potential explosivity hazard.

For additional safety information, consult the current editions of the National Fire Protection Association (NFPA) 654 Standard for the Prevention of Fire and Dust Explosions from the Manufacturing, Processing, and Handling of Combustible Particulate Solids, NFPA 499, Recommended Practice for the Classification of Combustible Dusts and of Hazardous (Classified) Locations for Electrical Installations in Chemical Process Areas, NFPA 77, Recommended Practice on Static Electricity, NFPA 68, Standard on Explosion Protection by Deflagration Venting or similar guidance for your country or region.

Avoid contact with oxidizing agents, acids, alkalis, moisture, and alcohols. Prevent small spills to minimize slip hazard or release to the environment. Materials should be handled, stored and shipped in a manner to prevent dust evolution. Do not cut, grind, drill, weld or reuse empty containers unless adequate precautions are taken.

Avoid personal contact with this material. Always observe good personal hygiene measures, such as removing contaminated clothing and protective equipment, washing after handling the material and before entering public areas. Restrict eating, drinking and smoking to designated areas to prevent personal chemical contamination. Routinely wash work clothing and protective equipment to remove contaminants. Do not breathe dust. See Section 8 of the SDS for Personal Protective Equipment.

Conditions for safe storage, including any incompatibilities

Store in closed containers in a cool, isolated, well-ventilated area away from excessive heat and incompatibles. Avoid contact with oxidizing agents, acids, alkalis, moisture, and alcohols. Empty containers may contain material residue. Do not reuse without adequate precautions.

8. Exposure controls/personal protection

Occupational exposure limits

US. ACGIH Threshold Limit Values

Material	Type	Value	Form
TRIMELLITIC ANHYDRIDE	STEL	0.002 mg/m3	Inhalable fraction and vapor.
	TWA	0.0005 mg/m3	Inhalable fraction and vapor.

US. NIOSH: Pocket Guide to Chemical Hazards

Material	Type	Value
TRIMELLITIC ANHYDRIDE	TWA	0.04 mg/m3

US. NIOSH: Pocket Guide to Chemical Hazards Material	Type	Value
		0.005 ppm

Biological limit values No biological exposure limits noted for the ingredient(s).

Exposure guidelines

US ACGIH Threshold Limit Values: Skin designation

TRIMELLITIC ANHYDRIDE (CAS 552-30-7) Can be absorbed through the skin.

Appropriate engineering controls INHALATION SENSITIZATION HAZARD. Do not breathe dust.

Use explosion-proof equipment if high dust/air concentrations are possible. Use only appropriately classified electrical equipment and powered industrial trucks. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

It is recommended that all dust control equipment such as local exhaust ventilation and material transport systems involved in handling of this product contain explosion relief vents or an explosion suppression system or an oxygen deficient environment.

Ensure that dust-handling systems (such as exhaust ducts, dust collectors, vessels, and processing equipment) are designed in a manner to prevent the escape of dust into the work area (i.e., there is no leakage from the equipment).

Individual protection measures, such as personal protective equipment

Eye/face protection Keep away from eyes. Eye contact can be avoided by using chemical safety glasses, goggles and/or face shield. Have eye washing facilities readily available where eye contact can occur.

Skin protection

Hand protection Prevent any skin contact with this material. Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.

Use protective gloves complying with OSHA standard 1910.138.
Nitrile Rubber
Permeation rate: > 480 minutes (8 hour)
Thickness: > 0.5 mil

Other Dermal exposure to this chemical may add to the overall exposure.

Prevent any skin contact with this material. Use of protective coveralls and long sleeves is recommended.

Respiratory protection INHALATION SENSITIZATION HAZARD. Do not breathe dust. Use only with adequate ventilation.

Working without a respirator is only acceptable where the concentration does not exceed recommended exposure levels and ventilation is adequate. A respirator that will protect against organic vapor and dust/mist may be used where concentrations are known and the respirator's assigned protection factor is adequate.

If concentration is unknown, a Self-Contained Breathing Apparatus (SCBA) should be used to avoid inhalation of the material.

Thermal hazards No special precautions required.

General hygiene considerations Handle in accordance with good industrial hygiene and safety practice. Do not get in eyes, on skin, or on clothing. When using, do not eat, drink or smoke. Wash hands and face before breaks and immediately after handling the product.

9. Physical and chemical properties

Appearance

Physical state Solid.

Form Flakes or tablets

Color White to yellow

Odor Not available.

Odor threshold Not available.

pH Not applicable

Melting point/freezing point 332.96 °F (167.2 °C) at 1013 hPa / Not available

Initial boiling point and boiling range 734 °F (390 °C) at 1013 hPa

Flash point 440.6 °F (227 °C) Closed Cup at 1013 hPa

Evaporation rate	Not applicable
Flammability (solid, gas)	Non-flammable
Upper/lower flammability or explosive limits	
Flammability limit - lower (%)	1 %
Flammability limit - upper (%)	7 %
Explosive limit - lower (%)	See flammablility limit
Explosive limit - upper (%)	See flammablility limit
Vapor pressure	0.0000152 Pa at 25 ℃
Vapor density	Not applicable
Relative density	1.487 at 20 ℃
Solubility(ies)	
Solubility (water)	24400.0 mg/l at 20 ℃
Partition coefficient (n-octanol/water)	Log Kow (Pow) =0.06 at 20 °C
Auto-ignition temperature	> 752 ℉ (> 400 ℃) at atmospheric pressure
Decomposition temperature	Not available.
Viscosity	Not applicable
Other information	
Chemical family	Anhydride
Dissociation constant	2.9 pK1 at 20 ℃ 3.9 pK2 at 20 °C 5.3 pK3 at 20 °C
Dust explosion properties	
Pmax	7.5 - 7.6 barg
Kst	199 - 217 bar-m/s
Limiting oxygen concentration (LOC)	8.2 - 12.5 vol %
Minimum explosible concentration (MEC)	70 - 80 g/m3
Minimum ignition energy (MIE) - dust cloud	10 - 25 mJ
Minimum ignition temperature (MIT) - dust cloud	1040 - 1148 °F (560 - 620 °C)
Minimum ignition temperature (MIT) - dust layer	> 410 °F (> 210 °C)
Explosive properties	Non-explosive
Explosivity	Non explosive
Granulometry	< 50 microns (<1% of sample) > 500 microns (>99% of sample)
Molecular formula	C9H4O5
Molecular weight	192.13
Oxidizing properties	None known

10. Stability and reactivity

Reactivity	See statements below.
Chemical stability	Material is stable under normal conditions.

Possibility of hazardous reactions

Information on dust explosion hazard is given in Sections 5, 7, and 9.

Reacts exothermically with water. This reaction is expected to be slow, but can become vigorous if local heating accelerates it. Reaction with water is accelerated by acids.

Conditions to avoid

Avoid exposure to moisture or moist air. Avoid dusting when handling and avoid all possible sources of ignition (spark or flame).

Incompatible materials

Reactive with oxidizing agents, acids, alkalis and moisture, and alcohols. Contact with water will produce the corresponding acid. See precautions under Handling & Storage (Section 7).

Hazardous decomposition products

Not anticipated under normal conditions.

11. Toxicological information

Information on likely routes of exposure

Inhalation Likely route of exposure

Skin contact Likely route of exposure

Eye contact Likely route of exposure

Ingestion Likely route of exposure

Symptoms related to the physical, chemical and toxicological characteristics

INHALATION:
Trimellitic anhydride (TMA) is a respiratory sensitizer. In susceptible individuals, i.e., those that have developed antibodies to TMA, repeated inhalation of dust or vapor may result in an immediate onset of asthma-like symptoms (coughing, sneezing, tightness in the chest, and wheezing) or delayed respiratory effects.

SKIN:
Contact may cause reddening, itching and inflammation. Skin contact may cause harmful effects in other parts of the body. May cause an allergic reaction in some individuals.

EYES:
May cause severe eye irritation with pain, tearing, burning feeling, sensitivity to light, swelling and possible corneal damage.

INGESTION:
Swallowing this material may be harmful. May cause irritation of the mouth, throat and gastrointestinal tract. Symptoms may include salivation, pain, nausea, vomiting and diarrhea.

Information on toxicological effects

Acute toxicity

Reason for no classification: conclusive but not sufficient for classification. Based on available data, the classification criteria are not met.

Components	Species	Test Results
TRIMELLITIC ANHYDRIDE (CAS 552-30-7)		
Acute		
Dermal		
LD50	Rabbit	> 2000 mg/kg
Inhalation		
Dust		
LC50	Rat	> 2.33 mg/m³, 4 hr
Oral		
LD50	Rat	2730 mg/kg

Skin corrosion/irritation

Reason for no classification: conclusive but not sufficient for classification. Based on available data, the classification criteria are not met.

Serious eye damage/eye irritation

Causes serious eye damage.

Respiratory or skin sensitization

ACGIH sensitization

TRIMELLITIC ANHYDRIDE (CAS 552-30-7)	Dermal sensitization Respiratory sensitization

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

Skin sensitization May cause an allergic skin reaction.

Germ cell mutagenicity Reason for no classification: conclusive but not sufficient for classification. Based on available data, the classification criteria are not met.

Carcinogenicity Reason for no classification: conclusive but not sufficient for classification. Based on available data, the classification criteria are not met.

IARC Monographs. Overall Evaluation of Carcinogenicity

Not listed.

US. National Toxicology Program (NTP) Report on Carcinogens

Not listed.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not regulated.

Reproductive toxicity Reason for no classification: conclusive but not sufficient for classification. Based on available data, the classification criteria are not met.

Specific target organ toxicity - single exposure May cause respiratory irritation.

Specific target organ toxicity - repeated exposure Reason for no classification: conclusive but not sufficient for classification. Based on available data, the classification criteria are not met.

Aspiration hazard Reason for no classification: conclusive but not sufficient for classification. Based on available data, the classification criteria are not met.

Chronic effects Repeated or prolonged skin contact may cause allergic reactions with susceptible persons.

Toxicological data

TRIMELLITIC ANHYDRIDE (TMA) is a known respiratory sensitizer. In susceptible individuals, the immediate onset of asthma-like symptoms may occur within minutes of exposure to dust or vapor. Alternatively, some sensitized individuals develop late onset respiratory systemic syndrome (LRSS also known as "TMA flu"). Symptoms of LRSS generally develop four to eight hours after exposure has ended, and recovery usually occurs within 6-12 hours. Flu-like symptoms include coughing, wheezing, breathlessness, congestion, fever, chills, fatigue, and generalized aching .

In rare instances, a sensitized individual may develop a more serious disorder known as pulmonary disease-anemia (PDA) characterized by homoptysis and hemolytic anemia, requiring hospitalization. This disorder is associated with exposure to fumes resulting from high-temperature vaporization processes. Initially, asthma-like symptoms occur with the possible presence of bloodstained sputum. Following recovery from a reaction, employees should not be assigned to duties where potential exposure may occur. Sensitization to TMA may result in an allergic reaction to other aromatic anhydrides. Likewise, sensitization to other anhydrides may result in allergic reaction to TMA.

Studies in laboratory rats mimic the human effects of TMA and result in immunologically mediated lung changes. Sensitization to TMA has been demonstrated in laboratory animals as a result of dermal (only) exposure. The relevance to humans isn't certain, but it may be assumed that workers may develop sensitization as a result of repeated dermal contact.

12. Ecological information

Ecotoxicity Material not classified as harmful to aquatic organisms.

Components		Species	Test Results
TRIMELLITIC ANHYDRIDE (CAS 552-30-7)			
Aquatic			
Acute			
Algae	EC50	Algae	> 739 mg/l, 72 hr
Crustacea	EC50	Daphnia magna	> 792 mg/l, 48 hr
Fish	LC50	Fish	> 957 mg/l, 96 hr

Persistence and degradability This material is readily biodegradable and not persistent.

Bioaccumulative potential Based on a partition coefficient, log Kow (Pow), of <3, this substance is not expected to exhibit significant bioconcentration or bioaccumulation tendencies.

Bioconcentration factor (BCF)

TRIMELLITIC ANHYDRIDE < 3

Mobility in soil TMA or trimellitic acid released to the environment is expected to partition primarily to the water (99.2%) with small amounts in the soil (<1%) and the air and sediment (<0.1%).

Other adverse effects No other adverse effects expected.

13. Disposal considerations

Disposal instructions

The transportation, storage, treatment and disposal of waste material must be conducted in compliance with federal, state, and local regulations. Under RCRA it is the responsibility of the user of the material to determine, at the time of disposal, whether this material meets RCRA criteria for hazardous waste.

For additional handling information and protection of employees, see Section 7 (Handling and Storage) and Section 8 (Exposure Controls/Personal Protection).

Local disposal regulations

Incinerate the material under controlled conditions in an approved incinerator, unless directed otherwise by the appropriate authority. Consult authorities before disposal. Do not allow this material to drain into sewers/water supplies. Empty containers should be taken to an approved waste handling site for recycling and disposal.

Hazardous waste code

The proper waste code must be evaluated at the time of disposal and should be determined by the user and waste disposal company.

Waste from residues / unused products

Dispose of this material in accordance with all applicable local and national regulations.

Contaminated packaging

Empty containers should be taken to an approved waste handling site for recycling or disposal in accordance with government regulations. Packaging may contain residue that can be hazardous.

14. Transport information

General information

INTERNATIONAL TRANSPORTATION REQUIREMENTS: Not dangerous goods in the meaning of SCT, ADR/RID, ADNR, IMDG-Code, and ICAO/IATA-DGR.

BILL OF LADING - BULK (U. S. DOT): Non-regulated

BILL OF LADING - NON-BULK (U. S. DOT): Non-regulated

The above description may not cover shipping in all cases. Please consult 49 CFR 100-185 for specific shipping information or Transport Compliance Specialist (CSO).

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not regulated by MARPOL.

15. Regulatory information

US federal regulations

All ingredients are on the TSCA inventory, or are not required to be listed on the TSCA inventory.

This material does not contain toxic chemicals (in excess of the applicable de minimis concentration) that are subject to the annual toxic chemical release reporting requirements of the Superfund Amendments and Reauthorization Act (SARA) Section 313 (40 CFR 372).

Check local, regional or state/provincial regulations for any additional requirements as these may be more restrictive than federal laws and regulations. Failure to comply may result in substantial civil and criminal penalties.

US EPCRA (SARA Title III) Section 304 - Extremely Hazardous Spill: Reportable quantity

Not regulated.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not regulated.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories

Immediate Hazard - Yes
Delayed Hazard - Yes
Fire Hazard - No
Pressure Hazard - No
Reactivity Hazard - No

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

US state regulations

US. California Proposition 65

Based on available information this product does not contain any components or chemicals currently known to the State of California to cause cancer, birth defects or reproductive harm at levels which would be subject to Proposition 65. Reformulation,use or processing of this material may affect its composition and require re-evaluation.

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)
A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

Issue date	12-01-2018
Revision date	12-01-2018
Version #	04
Further information	Not applicable
HMIS® ratings	Health: 3* Flammability: 0 Physical hazard: 1 * Indicates chronic health hazard
NFPA ratings	Health: 3 Flammability: 1 Instability: 1

References	Ariel™ Global Chemical and Regulatory Database EU REACH Chemical Safety Report -Trimellitic Anhydride
Disclaimer	THIS SDS HAS BEEN PREPARED TO COMPLY WITH FEDERAL REGULATIONS THAT ARE INTENDED TO QUICKLY PROVIDE USEFUL INFORMATION TO THE USER(S) OF THIS MATERIAL OR PRODUCT - IT IS NOT INTENDED TO SERVE AS A COMPREHENSIVE DISCUSSION OF ALL POSSIBLE RISKS OF HAZARDS, BUT RATHER PROVIDES INFORMATION GENERALLY ACCEPTED IN THE SCIENTIFIC COMMUNITY AS RELEVANT REGARDING THE POTENTIAL HAZARDS OF THIS PRODUCT. ADEQUATE TRAINING, INSTRUCTION, WARNINGS AND SAFE HANDLING PROCEDURES SHOULD BE PROVIDED TO HANDLERS AND USERS. USERS SHOULD REVIEW THE INFORMATION IN THE SDS, AND SATISFY THEMSELVES AS TO ITS SUITABILITY AND COMPLETENESS, INCLUDING ENSURING THAT THIS IS THE MOST CURRENT SDS. CHEM - JOLIET - MANUF/SUPP (B) cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The information in the sheet was written based on the best knowledge and experience currently available.
Revision information	N/A