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# **Material Safety Data Sheet**

## -----1. CHEMICAL PRODUCT and COMPANY IDENTIFICATION------

PRODUCT NAME: TEREPHTHALIC ACID

SYNONYMS: PTA

TA

TEREPHTHALIC ACID PTA

1,4-BENZENEDICARBOXYLIC ACID

INVISTA S.à.r.l. 4600 U.S. HWY 421 NORTH P.O. BOX 327 WILMINGTON, NC 28402 UNITED STATES

------2. COMPOSITION / INFORMATION on INGREDIENTS ------

COMPONENT CAS NUMBER

TEREPHTHALIC ACID\*

100-21-0

100%

\*OSHA hazardous according to 29 CFR 1910.1200

------3. HAZARDS IDENTIFICATION------

## **EMERGENCY OVERVIEW**

PRODUCT DESCRIPTION: White, odorless crystals.

HEALTH HAZARDS: Eye Irritant. Mild irritant of the mucous membranes and respiratory tract. Slight skin irritant.

FIRE/EXPLOSION RISK: Will burn if involved in fire. Finely divided and suspended dust is ignitable and may

explode.

## POTENTIAL HEALTH EFFECTS

## **ROUTES OF EXPOSURE:**

Skin, eyes, inhalation.

## SIGNS AND SYMPTOMS OF EXPOSURE:

Eye irritation, watering, burning sensation or pain. Overexposure by inhalation may cause slight irritation of the mucous membranes and respiratory tract. May cause mild skin irritation with redness and itching, dryness, burning sensation or dermatitis.

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## **IMMEDIATE EFFECTS**

**SKIN:** Skin irritant. Not considered a skin sensitizer.

**EYES:** Eye irritant.

**INHALATION:** Mild irritant of the mucous membranes and respiratory tract.

## **DELAYED / LONG TERM EFFECTS**

#### **CARCINOGENIC EFFECTS:**

Is not considered a human carcinogen. This material has produced bladder tumors in laboratory animals when fed in the diet at high levels. This effect is thought to be species-specific. See Section 11, 'Toxicology' for more information.

## **MUTAGENIC:**

Is not considered a mutagen. See Section 11, 'Toxicology' for more information.

#### **TERATOGENIC:**

Not a specific developmental toxicant.

### **TARGET ORGAN EFFECTS:**

Eye irritation. Inhalation of the material can cause mild respiratory tract irritation. Slight skin irritant. May adversely affect the development of a fetus.

### MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE:

Pre-existing respiratory conditions (e.g., asthma) can be aggravated by the inhalation of this material.

# -----4. FIRST AID MEASURES------

### SKIN:

Wash with soap and plenty of water after contact. Get medical attention if irritation is severe or persistent, or if skin damage (e.g., rash, dermatitis) develops. Launder work clothes after every wearing.

## **EYES:**

Flush with plenty of water for at 15 minutes.

### **INHALATION:**

Remove to fresh air. If irritation is severe or breathing is difficult, get medical attention. If not breathing, give cardiopulmonary resuscitation (CPR) and get medical attention immediately.

#### **INGESTION:**

If conscious, give water to drink and induce vomiting. Never giver anything by mouth to an unconscious person. Contact medical for observation or treatment as needed.

# ------5. FIRE FIGHTING MEASURES------

### FLAMMABLE PROPERTIES:

LOWER EXPLOSIVE LIMIT: 0.04 oz/cu. ft (dust)

AUTOIGNITION TEMPERATURE: 650.5°C (1202°F) (dust)

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Terephthalic acid dust, when finely divided and suspended in air, is readily ignitable and produces explosions with high rates of pressure rise.

### HAZARDOUS PRODUCTS OF COMBUSTION:

Compounds of carbon, hydrogen and oxygen, including carbon monoxide and other toxic gases. The exact composition will depend on the conditions of combustion.

## **EXTINGUISHING MEDIA:**

Alcohol foam, carbon dioxide, dry chemicals.

### FIRE FIGHTING INSTRUCTIONS:

Wear full bunker gear, including SCBA, for fighting fires involving this material.

## ------6. ACCIDENTAL RELEASE MEASURES-----

Wear appropriate eye protection (e.g., chemical goggles, full face respirator) to prevent contact with material when responding or during cleanup activities. Wear appropriate respiratory protection to prevent overexposure when responding to release or during cleanup activities. Wear appropriate body protection (e.g., impervious gloves, boots, and coveralls) to prevent skin contact with material when responding to release or during cleanup activities.

### PROCEDURES IN CASE OF SPILL OR LEAK:

Extinguish all sources of ignition.

## **CONTAINMENT TECHNIQUES:**

Keep out of sewers and water-ways.

### **CLEANUP PROCEDURES:**

Sweep up and place in clean, covered steel drums for disposal. Caution: avoid creating dust clouds during cleanup activity. Never use compressed air to clean up terephthalic acid due to the risk explosion.

# -----7. HANDLING AND STORAGE------

#### HANDLING:

Blanket containers with nitrogen before filling (due to explosion hazard from dust). Protect containers from damage.

## STORAGE:

Keep containers tightly closed. Protect from freezing. Store containers in spill containment areas.

# ------8. EXPOSURE CONTROLS / PERSONAL PROTECTION ------

## **ENGINEERING CONTROLS:**

Use adequate area and /or local ventilation to control airborne concentrations.

## **WORK PRACTICES:**

Eyewash fountains and safety showers should be easily accessible.

## PROTECTIVE EQUIPMENT

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## SKIN:

Wear appropriate skin protection (e.g., gloves) if there is a potential for skin contact.

#### **EYES:**

Wear appropriate eye protection (e.g., safety glasses with sideshields) if there is a potential for eye contact.

## **INHALATION:**

Wear appropriate respiratory protection to prevent overexposure to excessive airborne concentrations.

### **EXPOSURE GUIDELINES:**

RECOMMENDED AIRBORNE LEVELS

5 mg/m3 respirable dust 10 mg/m3 total dust

# -----9. PHYSICAL AND CHEMICAL PROPERTIES ------

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APPEARANCE : White crystals.
ODOR : Odorless.
PHYSICAL STATE : Solid

VAPOR PRESSURE : 0.5 mmHg @ 120 °C

BOILING POINT : Sublimes

SOLUBILITY : Negligible in water.

SPECIFIC GRAVITY : 1.5 % VOLATILES: : None.

# ------10. STABILITY AND REACTIVITY ------

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## **CHEMICAL STABILITY:**

Stable and normally unreactive.

## **CONDITIONS TO AVOID:**

Avoid creation of dust conditions (see Section 5 for more information).

### INCOMPATIBILITY:

Incompatible with strong oxidizing agents.

## **HAZARDOUS DECOMPOSITION PRODUCTS:**

Compounds of carbon, hydrogen, and oxygen, including carbon monoxide and other toxic gases. The exact composition will depend on the causes and conditions of decomposition.

## **HAZARDOUS POLYMERIZATION:**

Will not occur.

# ------11. TOXICOLOGICAL INFORMATION------

Terephthalic acid has low hazard potential due to its limited toxicity (acute oral LD50, rat, >15.4 g/kg). It is a mild irritant to skin and mucous membranes. It is not a skin sensitizer. Negative in the Ames test for mutagenicity. In

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laboratory animals kidney and bladde			ounts of terephtha	lic acid in the die	et is associated with stone formation with
		12.	<b>ECOLOGIC</b>	AL INFORMA	ATION
ЕСОТОХІСІТУ	:			-	
Salmo Gairdneri I Daphnia Magna E		•			
		13.	DISPOSAL C	ONSIDERAT	TONS
Dispose of solid to	erephtha	alic acid in acco	ordance with local	, state, and federa	l agencies.
This product is not considered a hazardous waste under 40CFR 261.33 paragraphs (e) or (f) or 40CFR 261 Subpart C. State or local hazardous waste regulations may apply if different from the federal. Incinerate by injection into an approved furnace or bury in an approved landfill.					
RCRA CLASSIF This material is no			us waste under the	Resource Conse	rvation and Recovery Act (RCRA).
14. TRANSPORT INFORMATION					
				-	
Transport in accordance with all local, state, and federal regulations, including 49 CFR Parts 171 through 177. This product is not regulated by the Department of Transportation as a hazardous material.					
		15 <b>.</b> ]	REGULATOI	RY INFORMA	ATION
	A TEXAN	TG.		-	
	wing cl	hemicals associa	ated with the prod 11-0): MA, NJ, PA	•	the right-to-know regulations in these
U.S. FEDERAL REGULATIONS:  TSCA inventory status: All components listed					
SARA 313: No components listed  INTERNATIONAL REGULATIONS:  Inventory status: Listed on DSL (Canada) and EINECS.					
16. OTHER INFORMATION					
HAZARD RATII	NGS:	HEALTH	FLAMM	 REACT	OTHER
NFPA/H	MIS	1	1	0	OTHER
Disclaimer					

This Material Safety Data Sheet ("MSDS") contains selected information about a specific INVISTA product or group of products. It relates only to the identified product and any identified uses and is based on

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information available as of the date hereof. Additional information may be needed to evaluate other uses of the product, including use of the product in combination with any materials or in any processes other than those specifically referenced. Information provided herein with respect to any hazards that may be associated with the product is not meant to suggest that use of the product in a given application will necessarily result in any exposure or risk to workers or the general public. THIS MSDS WAS PREPARED PURSUANT TO GOVERNMENT REGULATIONS THAT IDENTIFY SPECIFIC TYPES OF INFORMATION TO BE PROVIDED HEREIN. IT IS THEREFORE NOT INTENDED AS, AND DOES NOT CONTAIN, A COMPLETE STATEMENT OF, AND DOES NOT CONSTITUTE A REPRESENTATION, WARRANTY OR GUARANTY WITH REGARD TO, A PRODUCT'S CHARACTERISTICS, USES, QUALITY, MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR THE SUITABILITY, SAFETY, EFFICACY, HAZARDS OR HEALTH EFFECTS OF THE PRODUCT, WHETHER USED SINGULARLY OR IN COMBINATION WITH ANY OTHER PRODUCT, EXCEPT TO THE EXTENT REQUIRED BY THE RELEVANT LAW AND **REGULATIONS.** Purchasers and users of the product are responsible for determining that the product is suitable for the intended use and that their workers and the general public are advised of any risks resulting from such use. Nothing contained in this MSDS shall be construed to modify any of the commercial terms pursuant to which the product was sold by INVISTA including, but not limited to, terms and conditions addressing each party's respective rights and obligations with regard to warranties, remedies and indemnification.

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