



**DAK Americas LLC
Material Safety Data Sheet**

MSDS NUMBER: DK0001
REVISION DATE: 01/21/2008

TEREPHTHALIC ACID (ALL GRADES)

CHEMICAL PRODUCT/COMPANY IDENTIFICATION

MATERIAL IDENTIFICATION:

Formula: HOCC6H4COOH
Molecular Weight: 166.13
CAS Name: 1,4-BENZENEDICARBOXYLIC ACID

Tradenames and Synonyms:

1,4-BENZENEDICARBOXYLIC ACID
KP-12
TPA
PGTPA
PTA

COMPANY IDENTIFICATION:

MANUFACTURER/DISTRIBUTOR:

DAK Americas LLC
3500 Daniels Road NE
Leland, NC 28451

PHONE NUMBERS:

FOR INFORMATION CALL: 1-877-432-2766
TRANSPORT EMERGENCY CALL: 1-800-424-9300

COMPOSITION/INFORMATION ON INGREDIENTS

COMPONENTS:

Material	CAS Number	%
TEREPHTHALIC ACID	100-21-0	>99.8
ACETIC ACID	64-19-7	0.15

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HAZARDS IDENTIFICATION

POTENTIAL HEALTH EFFECTS:

This compound is a slight eye irritant. High or prolonged oral exposure may result in kidney changes, blood in the urine or bladder stones.

Terephthalic acid caused cancer in rats at large oral doses.

Eye contact may cause slight irritation, with discomfort, tearing, or blurring of vision. Inhalation may cause irritation of mucosal surfaces. Based on animal studies, high or prolonged oral exposure may result in kidney changes, blood in the urine or bladder stones.

CARCINOGENICITY INFORMATION:

None of the components present in this material at concentrations equal to or greater than 0.1% are listed by IARC, NTP, OSHA or ACGIH as a carcinogen.

FIRST AID MEASURES

FIRST AID:

INHALATION:

If large amounts are inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.

SKIN CONTACT:

Flush skin with water after excessive contact. Wash contaminated clothing before reuse.

EYE CONTACT:

In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Call a physician.

INGESTION:

If swallowed, immediately give 2 glasses of water and induce vomiting. Never give anything by mouth to an unconscious person. Call a physician.

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FIRE FIGHTING MEASURES

FLAMMABLE PROPERTIES:

Flash Point: 260 C (500 F)
Method: OC
Auto-ignition: 677 C (1251 F)

Dust forms explosive mixture with air.
Hazardous gases/vapors produced in fire are carbon monoxide

FIRE AND EXPLOSION HAZARDS:

High-voltage static electricity buildup is possible when significant quantities of dust are present in the air. This can be a potential source of ignition.

EXTINGUISHING MEDIA:

Water, Water Spray, Foam, Dry Chemical.
Carbon Dioxide (CO₂).

FIRE FIGHTING INSTRUCTIONS:

Wear self-contained breathing apparatus. Wear full protective equipment.
Keep personnel removed and upwind of fire.

ACCIDENTAL RELEASE MEASURES

SAFEGUARDS (PERSONNEL):

NOTE: Review FIRE FIGHTING MEASURES and HANDLING (PERSONNEL) sections before proceeding with clean-up. Use appropriate PERSONAL PROTECTIVE EQUIPMENT during clean-up.

INITIAL CONTAINMENT:

Remove source of heat, sparks, flame, impact, friction or electricity.

SPILL CLEAN UP:

Recover undamaged and minimally contaminated material for reuse and reclamation.

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HANDLING AND STORAGE

HANDLING (PERSONNEL):

Avoid breathing dust. Avoid contact with eyes, skin, or clothing.
Wash thoroughly after handling.

HANDLING (PHYSICAL ASPECTS):

Avoid dust generation. Close container after each use. Keep away from heat, sparks and flames.

STORAGE:

Do not mix with strong oxidants. Store in a well-ventilated place. Keep container tightly closed.

EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS:

Keep container tightly closed.
Use sufficient ventilation to keep employee exposure below recommended exposure limits.

PERSONAL PROTECTIVE EQUIPMENT:

EYE/FACE PROTECTION:

Wear safety glasses. Wear coverall chemical splash goggles and face shield when the possibility exists for eye or face contact from airborne material.

RESPIRATORS:

A NIOSH approved air purifying respirator with a dust cartridge or canister may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits. Protection provided by air purifying respirators is limited. Use a positive pressure air supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air purifying respirators may not provide adequate protection.

PROTECTIVE CLOTHING:

Wear impervious clothing, such as gloves, apron, boots, or whole bodysuit made from butyl rubber, as appropriate.

EXPOSURE CONTROLS/PERSONAL PROTECTION

EXPOSURE GUIDELINES:

Applicable Exposure Limits

TEREPHTHALIC ACID:

PEL (OSHA):	None Established
TLV (ACGIH):	10 mg/m ³ , 8 Hr. TWA
AEL * (DUPONT):	10 mg/m ³ , total dust, 5 mg/m ³ , respirable dust 8 Hr. TWA
WEEL (AIHA):	None Established

ACETIC ACID:

PEL (OSHA):	10 ppm, 25 mg/m ³ , 8 Hr. TWA
TLV (ACGIH):	10 ppm, 25 mg/m ³ , 8 Hr. TWA
	STEL 15 ppm, 37 mg/m ³
AEL * (DUPONT):	10 ppm, 8 & 12 Hr. TWA

AEL is DUPONT'S Acceptable Exposure Limit. Where governmentally imposed occupational exposure limits which are lower than the AEL are in effect, such limits shall take precedence.

- DAK AMERICAS ACCEPTS DUPONT'S AEL.

PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL DATA:

Boiling Point:	Sublimes above 300 deg C (570 deg F)
Vapor Pressure:	<0.01 mm Hg @ 20 C (68 F)
Melting Point:	>300 C (>572 F)
Solubility in Water:	Negligible
Odor:	Vinegar
Form:	Powder
Color:	White
Specific Gravity:	1.51

PHYSICAL HAZARDS:

Vapor space above TPA may contain acetic acid in concentrations above its exposure limits.

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STABILITY AND REACTIVITY

CHEMICAL STABILITY:

Stable

INCOMPATIBILITY WITH OTHER MATERIALS:

Incompatible with strong oxidants.

DECOMPOSITION:

Decomposes with heat.

Decomposition temperature: 300 C (572 F).

POLYMERIZATION:

Polymerization will not occur.

TOXICOLOGICAL INFORMATION

ANIMAL DATA:

Oral LD50: 18,800 mg/kg in rats

The compound is a slight eye irritant, but is neither a skin irritant nor a skin sensitizer in animals. Toxic effects described in animals from exposure by ingestion include bladder hemorrhage and stomach ulceration. Toxicity described for repeated doses include bladder calculi (stones), blood in the urine, and decreased weight gain.

Toxicity described in animals administered the compound orally in the diet include bladder stones and alterations of the urinary tract with tumors and squamous cell carcinomas, decreased growth rate and altered relative organ weights.

Terephthalic acid is a carcinogen in rats when administered in large oral doses (>1,000 mg/kg/day). The compound does not produce genetic damage in bacterial cell cultures. Animal testing indicates that this compound does not have reproductive effects. Limited information from reproduction studies does not indicate that terephthalic acid is a unique hazard to the conceptus.

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DISPOSAL CONSIDERATIONS

WASTE DISPOSAL:

Treatment, storage, transportation and disposal must be in accordance with applicable Federal, State, and local regulations. Recover non-usable free liquid and dispose of in an approved and permitted incinerator. Recover contaminated liquid and dispose of in an approved and permitted biological treatment system. Remove non-usable solid material and/or contaminated soil, for disposal in an approved and permitted landfill.

TRANSPORTATION INFORMATION

SHIPPING INFORMATION:

Shipping Containers

Tank Cars: 190,000 lbs. net

Tank Trucks: 50,000 lbs. net

TEREPHTHALIC ACID IS NOT REGULATED AS A HAZARDOUS MATERIAL BY DOT, IMO OR IATA.

REGULATORY INFORMATION

U.S. FEDERAL REGULATIONS:

TSCA Inventory Status: Reported/Included.

TITLE III HAZARD CLASSIFICATIONS SECTIONS 311, 312

Acute: Yes

Chronic: Yes

Fire: No

Reactivity: No

Pressure: No

LISTS:

SARA Extremely Hazardous Substance - No

CERCLA Hazardous Material - No

SARA Toxic Chemical - No

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OTHER INFORMATION

NFPA, NPCA-HMIS:

NFPA Rating:

Health: 0
Flammability: 1
Reactivity: 0

NPCA-HMIS Rating:

Health: 2
Flammability: 1
Reactivity: 0

ADDITIONAL INFORMATION

Dacron®*** is a registered trademark of DuPont, licensed to DAK Americas LLC.

The data in this Material Safety Data Sheet relates only to the specific material designated herein and does not relate to use in combination with any other material or in any process.

Responsible for MSDS: Cape Fear Site MSDS Coordinator
Address: 3500 Daniels Rd.
Leland, NC 28451
Telephone: 1-910-371-4000

See DAK Americas Caution Statement on next page.

End of MSDS

CAUTION

DAK Americas LLC Caution Bulletin No. 1

DO NOT USE DAK AMERICAS MATERIALS IN MEDICAL APPLICATIONS INVOLVING **PERMANENT, BRIEF, OR TEMPORARY IMPLANTATION** IN THE HUMAN BODY OR PERMANENT CONTACT WITH INTERNAL BODY FLUIDS OR TISSUES, UNLESS THE MATERIAL HAS BEEN PROVIDED DIRECTLY FROM DAK AMERICAS UNDER A CONTRACT WHICH EXPRESSLY ACKNOWLEDGES THE CONTEMPLATED USE.

DAK AMERICAS MAKES NO REPRESENTATION, PROMISE, EXPRESS WARRANTY OR IMPLIED WARRANTY CONCERNING THE SUITABILITY OF THESE MATERIALS FOR USE IN THE HUMAN BODY OR IN CONTACT WITH INTERNAL BODY FLUIDS OR TISSUES.

THE CONTENT OF DAK AMERICAS MATERIAL IS NOT CERTIFIED FOR IMPLANTS. DAK Americas materials are not designed or manufactured for use in implantation in the human body or in contact with internal body fluids or tissues. DAK Americas has not performed clinical testing of these materials for implantation. DAK Americas will not provide to customers making implantable devices any notice concerning its materials, as specified under 21 C.F.R section 820.81, or any other information necessary for medical device use of the materials under any other statute or FDA regulation. DAK Americas has neither sought, nor received, approval from the FDA for the use of these materials in implantation in the human body or in contact with internal body fluids or tissues.

ALL IMPLANTABLE MEDICAL DEVICES CARRY A RISK OF FAILURE AND ADVERSE CONSEQUENCES

The medical judgment of a physician, a medical device seller and the FDA should be relied upon for identification of both harmful consequences and life-saving benefits from an implantation device comprised of specific materials. These benefits and risks can be found in published medical cases performing clinical medical studies of an implantable medical device. DAK Americas does not support the use of its products in these applications and cannot weigh the benefits against the risk defined in these articles. DAK Americas can not offer a medical judgment on the safety or efficacy of the use of its materials in such devices.

DO NOT MAKE REFERENCE TO THE DAK AMERICAS NAME OR ANY DAK AMERICAS TRADEMARK IN ASSOCIATION WITH AN IMPLANTABLE MEDICAL DEVICE.

Do not use a DAK Americas trademark or licensed trademark as the descriptive name of an implantable medical device (e.g. do not call it the "Dacron®" prosthesis", do not call it a "Delcron®" prosthesis, or do not call it a " Laser+® device").

End of Bulletin