

**JARYTHERM® DBT**

**1. PRODUCT AND COMPANY IDENTIFICATION**

**Company**

Arkema Inc.  
900 First Avenue  
King of Prussia, Pennsylvania 19406

**Oxygenated and Derivatives**

**Customer Service Telephone Number:** 1-800-346-5757  
(Monday through Friday, 8:00 AM to 5:00 PM EST)

**Emergency Information**

**Transportation:** CHEMTREC: (800) 424-9300  
(24 hrs., 7 days a week)  
**Medical:** Rocky Mountain Poison Center: (866) 767-5089  
(24 hrs., 7 days a week)

**Product Information**

**Product name:** JARYTHERM® DBT  
**Synonyms:** Not available  
**Molecular formula:** C<sub>21</sub>H<sub>20</sub>  
**Chemical family:** Benzylated toluenes  
**Product use:** Thermal insulating fluid, Formulated product

**2. HAZARDS IDENTIFICATION**

**Emergency Overview**

**Color:** Slightly yellow  
**Physical state:** liquid  
**Odor:** Slightly aromatic

**\*Classification of the substance or mixture:**

Reproductive toxicity, Category 1B, H360  
Aspiration hazard, Category 1, H304  
Chronic aquatic toxicity, Category 1, H410

\*For the full text of the H-Statements mentioned in this Section, see Section 16.

**JARYTHERM® DBT****GHS-Labeling**

Hazard pictograms:



Signal word:

**Danger****Hazard statements:**

- H304 : May be fatal if swallowed and enters airways.  
H360 : May damage fertility or the unborn child.  
H410 : Very toxic to aquatic life with long lasting effects.

**Supplemental Hazard Statements:**

May cause carboxyhemoglobinemia, decreasing oxygen in the blood.

**Precautionary statements:****Prevention:**

- P201 : Obtain special instructions before use.  
P202 : Do not handle until all safety precautions have been read and understood.  
P273 : Avoid release to the environment.  
P281 : Use personal protective equipment as required.

**Response:**

- P301 + P310 : IF SWALLOWED: Immediately call a POISON CENTER or doctor.  
P308 + P313 : IF exposed or concerned: Get medical advice/ attention.  
P331 : Do NOT induce vomiting.  
P391 : Collect spillage.

**Storage:**

- P405 : Store locked up.

**Disposal:**

- P501 : Dispose of contents or container to an approved waste disposal plant.

**Supplemental information:****Potential Health Effects:**

Prolonged or repeated skin contact may cause defatting resulting in drying, redness and rash. Strong heating or combustion causes decomposition and liberates toxic gas.  
The inhalation of vapors produced by product decomposition can cause : breathing difficulties, carboxyhemoglobin formation.

**JARYTHERM® DBT**

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

Chemical Name	CAS-No.	Wt/Wt	GHS Classification**
Benzene, methylbis(phenylmethyl)-	26898-17-9	> 98 %	H304, H410, H360

\*\*For the full text of the H-Statements mentioned in this Section, see Section 16.

**4. FIRST AID MEASURES**

**4.1. Description of necessary first-aid measures:**

**Inhalation:**

If inhaled, remove victim to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

**Skin:**

In case of contact, immediately flush skin with plenty of water. Remove contaminated clothing and shoes. Wash clothing before reuse. Thoroughly clean shoes before reuse.

**Eyes:**

Immediately flush eye(s) with plenty of water.

**Ingestion:**

If swallowed, DO NOT induce vomiting. Call a physician or Poison Control Center immediately. If vomiting occurs, have person lean forward. Never give anything by mouth to an unconscious person.

**4.2. Most important symptoms/effects, acute and delayed:**

For most important symptoms and effects (acute and delayed), see Section 2 (Hazard Statements and Supplemental Information if applicable) and Section 11 (Toxicology Information) of this SDS.

**4.3. Indication of immediate medical attention and special treatment needed, if necessary:**

Unless otherwise noted in Notes to Physician, no specific treatment noted; treat symptomatically.

**JARYTHERM® DBT**

---

**5. FIREFIGHTING MEASURES**

**Extinguishing media (suitable):**

Carbon dioxide (CO<sub>2</sub>), Foam, Dry chemical

**Protective equipment:**

Fire fighters and others who may be exposed to products of combustion should wear full fire fighting turn out gear (full Bunker Gear) and self-contained breathing apparatus (pressure demand / NIOSH approved or equivalent).

**Further firefighting advice:**

Cool closed containers exposed to fire with water spray.

Fire fighting equipment should be thoroughly decontaminated after use.

Do not allow run-off from fire fighting to enter drains or water courses.

**Fire and explosion hazards:**

When burned, the following hazardous products of combustion can occur:

Benzene

Toluene

Carbon oxides

Hazardous organic compounds

---

**6. ACCIDENTAL RELEASE MEASURES**

**Personal precautions, Emergency procedures, Methods and materials for containment/clean-up:**

Prevent further leakage or spillage if you can do so without risk. Evacuate area of all unnecessary personnel.

Ventilate the area. Avoid generation of vapors. Contain and collect spillage with non-combustible absorbent material such as clean sand, earth, diatomaceous earth or non-acidic clay and place into suitable properly labeled containers for prompt disposal. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Consult a regulatory specialist to determine appropriate state or local reporting requirements, for assistance in waste characterization and/or hazardous waste disposal and other requirements listed in pertinent environmental permits.

**Protective equipment:**

Appropriate personal protective equipment is set forth in Section 8.

**JARYTHERM® DBT****7. HANDLING AND STORAGE****Handling****General information on handling:**

Do not taste or swallow.  
Do not get in eyes, on skin, or on clothing.  
Do not breathe vapor or mist.  
Keep container tightly closed.  
Use only with adequate ventilation.  
Wash thoroughly after handling.  
When using do not eat, drink or smoke.  
Emptied container retains vapor and product residue.  
Observe all labeled safeguards until container is cleaned, reconditioned or destroyed.

**Storage****General information on storage conditions:**

Keep away from direct sunlight. Keep containers tightly closed in a dry, cool and well-ventilated place.

Store in closed containers, in a secure area to prevent container damage and subsequent spillage.

**Storage incompatibility – General:**

Oxidizing agents

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION****Airborne Exposure Guidelines:****Engineering controls:**

Investigate engineering techniques to reduce exposures below airborne exposure limits or to otherwise reduce exposures. Provide ventilation if necessary to minimize exposures or to control exposure levels to below airborne exposure limits (if applicable see above). If practical, use local mechanical exhaust ventilation at sources of air contamination such as open process equipment.

**Respiratory protection:**

Do not breathe vapor or mist. Where airborne exposure is likely or airborne exposure limits are exceeded (if applicable, see above), use NIOSH approved respiratory protection equipment appropriate to the material and/or its components. Full facepiece equipment is recommended and, if used, replaces need for face shield and/or chemical goggles. Consult respirator manufacturer to determine appropriate type equipment for a given application. Observe respirator use limitations specified by NIOSH or the manufacturer. For emergency and other conditions where there may be a potential for significant exposure or where exposure limit may be significantly exceeded, use an approved full face positive-pressure, self-contained breathing apparatus or positive-pressure airline with auxiliary self-contained air supply. Respiratory protection programs must comply with 29 CFR § 1910.134.

**Skin protection:**

**JARYTHERM® DBT**

Wear appropriate chemical resistant protective clothing and chemical resistant gloves to prevent skin contact. Consult glove manufacturer to determine appropriate type glove material for given application. Wear chemical goggles, a face shield, and chemical resistant clothing such as a rubber apron when splashing may occur. Rinse immediately if skin is contaminated. Remove contaminated clothing immediately and wash before reuse. Clean protective equipment before reuse. Provide a safety shower at any location where skin contact can occur. Wash thoroughly after handling.

**Eye protection:**

Where eye contact may be likely, wear chemical goggles and have eye flushing equipment available.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

<b>Color:</b>	Slightly yellow
<b>Physical state:</b>	liquid
<b>Odor:</b>	Slightly aromatic
<b>Odor threshold:</b>	No data available
<b>Flash point</b>	414 °F (212 °C) (closed cup)(Method: Method : Pensky - Martens)
<b>Auto-ignition temperature:</b>	932 °F (500 °C)
<b>Lower flammable limit (LFL):</b>	No data available
<b>Upper flammable limit (UFL):</b>	No data available
<b>pH:</b>	No data available.
<b>Density:</b>	1.044 g/cm3 (68 °F (20 °C)) 1.029 g/cm3 (104 °F (40 °C))
<b>Specific Gravity (Relative density):</b>	1.04 Water=1 (liquid)
<b>Vapor pressure:</b>	0.000 mmHg (68 °F (20 °C)) 0.000 mmHg (77 °F (25 °C))
<b>Boiling point/boiling range:</b>	Not applicable (decomposes on heating)
<b>Melting point/range:</b>	-37.3 - -27.0 °F (-38.5 - -32.8 °C)
<b>Freezing point:</b>	No data available

**JARYTHERM® DBT**

---

<b>Evaporation rate:</b>	No data available
<b>Solubility in water:</b>	18 µg/l 68 °F (20 °C)
<b>Solubility in other solvents: [qualitative and quantitative]</b>	Soluble in most organic solvents
<b>Viscosity, kinematic:</b>	47.94 mm <sup>2</sup> /s 68 °F (20 °C) 16.35 mm <sup>2</sup> /s 104 °F (40 °C)
<b>Viscosity, dynamic:</b>	No data available
<b>Oil/water partition coefficient:</b>	(No data available)
<b>Thermal decomposition:</b>	> 509 °F (265 °C)
<b>Flammability:</b>	See GHS Classification in Section 2 if applicable

**10. STABILITY AND REACTIVITY****Stability:**

This material is chemically stable under normal and anticipated storage, handling and processing conditions.

**Hazardous reactions:**

None known.

**Materials to avoid:**

Oxidizing agents

**Conditions / hazards to avoid:**

Store protected from moisture and heat. (to maintain the technical properties of the product).

**Hazardous decomposition products:**

Thermal decomposition giving flammable and toxic products :

Benzene

Toluene

Carbon oxides

Hazardous organic compounds

**11. TOXICOLOGICAL INFORMATION**

**JARYTHERM® DBT**

Data on this material and/or a similar material are summarized below.

**Data for JARYTHERM® DBT****Acute toxicity****Oral:**

No deaths occurred. (rat) LD0 > 10,360 mg/kg.

**Dermal:**

No deaths occurred. (rabbit) LD0 > 2,000 mg/kg.

**Inhalation:**

No deaths occurred. (rat) 4 h LC0 > 0.24 mg/l. (Inhalation of vapours from heated product)

Inhalation of vapours due to thermal decomposition signs: Formation of carboxyhaemoglobin, breathing difficulties

**Skin Irritation:**

Causes mild skin irritation. (rabbit) (4 h)

**Eye Irritation:**

Causes mild eye irritation. (rabbit)

**Skin Sensitization:**

Not a sensitizer. Guinea pig maximization test. No skin allergy was observed.

Not a sensitizer. Buehler Test. (guinea pig) No skin allergy was observed.

**Repeated dose toxicity**

Subchronic oral administration to rat / affected organ(s): liver / signs: At high dose :, changes in organ structure or function, changes in organ weights

**Genotoxicity****Assessment in Vitro:**

No genetic changes were observed in laboratory tests using: bacteria, animal cells

**Assessment in Vivo:**

No genetic changes were observed in laboratory tests using: mice, rats

**Developmental toxicity**

Exposure during pregnancy. Oral (rat) / No birth defects were observed. (at doses that produce effects in mothers)

Exposure during pregnancy. Oral (rabbit) / Malformations were observed.

**Reproductive effects**

Reproduction test. Oral (rat) / No toxicity to reproduction.



**JARYTHERM® DBT**

Reproductive/Developmental Effects Screening Assay. Oral (rat) / at high doses Effects on fertility and offspring. Reduced fertility. Increase incidence of post-implantation loss Effects on F1 offspring. Reduced offspring weight gain.

**Aspiration hazard**

May be fatal if swallowed and enters airways.

**12. ECOLOGICAL INFORMATION****Chemical Fate and Pathway**

Data on this material and/or a similar material are summarized below.

**Data for JARYTHERM® DBT****Biodegradation:**

Not readily biodegradable. (28 d) biodegradation 0 %

**Octanol Water Partition Coefficient:**

log Pow: > 6

**Ecotoxicology**

Data on this material and/or a similar material are summarized below.

**Data for JARYTHERM® DBT****Aquatic toxicity data:**

No effect up to the limit of solubility. Danio rerio (zebra fish) 96 h LC50 > 0.05 mg/l (Water accommodated fraction was tested.)

**Aquatic invertebrates:**

No effect up to the limit of solubility. Daphnia magna (Water flea) 48 h LC50 > 0.029 mg/l (Water accommodated fraction was tested.)

**Algae:**

No effect up to the limit of solubility. Skeletonema costatum (marine diatom) 72 h ErC50 > 0.016 mg/l

**Microorganisms:**

Respiration inhibition / Pseudomonas putida 5 h EC10 > 1,000 mg/l

**Chronic toxicity to aquatic invertebrates:**

Very toxic. Reproduction Test / Daphnia magna (Water flea) 21 d NOEC = 0.0014 mg/l

**Chronic toxicity to aquatic plants:**

No effect up to the limit of solubility. Skeletonema costatum 72 h NOEC r > 0.016 mg/l

**13. DISPOSAL CONSIDERATIONS****Waste disposal:**

Disposal via incineration is recommended. Dispose of in accordance with federal, state and local regulations.

**JARYTHERM® DBT**

Consult a regulatory specialist to determine appropriate state or local reporting requirements, for assistance in waste characterization and/or hazardous waste disposal and other requirements listed in pertinent environmental permits. Note: Chemical additions to, processing of, or otherwise altering this material may make this waste management information incomplete, inaccurate, or otherwise inappropriate. Furthermore, state and local waste disposal requirements may be more restrictive or otherwise different from federal laws and regulations.

Take appropriate measures to prevent release to the environment.

**14. TRANSPORT INFORMATION**

**US Department of Transportation (DOT)**

**UN Number** : 3082  
**Proper shipping name** : Environmentally hazardous substance, liquid, n.o.s.  
**Technical name** : (Dibenzyltoluene)  
**Class** : 9  
**Packaging group** : III  
**Marine pollutant** : yes

**International Maritime Dangerous Goods Code (IMDG)**

**UN Number** : 3082  
**Proper shipping name** : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.  
**Technical name** : (DIBENZYL TOLUENE)  
**Class** : 9  
**Packaging group** : III  
**Marine pollutant** : yes  
**Flash point** : 414 °F (212 °C) closed cup

**15. REGULATORY INFORMATION**

**Chemical Inventory Status**

US. Toxic Substances Control Act	TSCA	The components of this product are all on the TSCA Inventory.
Canadian Domestic Substances List (DSL)	DSL	All components of this product are on the Canadian DSL
China. Inventory of Existing Chemical Substances in China (IECSC)	IECSC (CN)	Conforms to
Japan. ENCS - Existing and New Chemical Substances Inventory	ENCS (JP)	Conforms to
Japan. ISHL - Inventory of Chemical Substances	ISHL (JP)	Conforms to
Korea. Korean Existing Chemicals Inventory (KECI)	KECI (KR)	Conforms to

**JARYTHERM® DBT**

Philippines Inventory of Chemicals and Chemical Substances (PICCS)      PICCS (PH)      Conforms to

Australia Inventory of Chemical Substances (AICS)      AICS      Conforms to

**United States – Federal Regulations**

**SARA Title III – Section 302 Extremely Hazardous Chemicals:**

The components in this product are either not SARA Section 302 regulated or regulated but present in negligible concentrations.

**SARA Title III - Section 311/312 Hazard Categories:**

Acute Health Hazard, Chronic Health Hazard

**SARA Title III – Section 313 Toxic Chemicals:**

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

**Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) - Reportable Quantity (RQ):**

The components in this product are either not CERCLA regulated, regulated but present in negligible concentrations, or regulated with no assigned reportable quantity.

**United States – State Regulations**

**New Jersey Right to Know**

No components are subject to the New Jersey Right to Know Act.

**Pennsylvania Right to Know**

<u>Chemical name</u>	<u>CAS-No.</u>
Benzene, methylbis(phenylmethyl)-	26898-17-9
Benzene, methyl-	108-88-3

**Pennsylvania Right to Know – Environmentally Hazardous Substance(s)**

<u>Chemical name</u>	<u>CAS-No.</u>
Benzene, methyl-	108-88-3

**JARYTHERM® DBT****California Prop. 65**

WARNING: This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

Chemical name  
Benzene, methyl-

CAS-No.  
108-88-3

**16. OTHER INFORMATION****Full text of H-Statements referred to under sections 2 and 3.**

H304 May be fatal if swallowed and enters airways.  
H360 May damage fertility or the unborn child.  
H410 Very toxic to aquatic life with long lasting effects.

## Latest Revision(s):

Reference number: 200008528  
Date of Revision: 09/21/2020  
Date Printed: 09/21/2020

JARYTHERM® is a registered trademark of Arkema Inc.

The statements, technical information and recommendations contained herein are believed to be accurate as of the date hereof. Since the conditions and methods of use of the product and of the information referred to herein are beyond our control, ARKEMA expressly disclaims any and all liability as to any results obtained or arising from any use of the product or reliance on such information; **NO WARRANTY OF FITNESS FOR ANY PARTICULAR PURPOSE, WARRANTY OF MERCHANTABILITY OR ANY OTHER WARRANTY, EXPRESSED OR IMPLIED, IS MADE CONCERNING THE GOODS DESCRIBED OR THE INFORMATION PROVIDED HEREIN.** The information provided herein relates only to the specific product designated and may not be applicable when such product is used in combination with other materials or in any process. The user should thoroughly test any application before commercialization. Nothing contained herein constitutes a license to practice under any patent and it should not be construed as an inducement to infringe any patent and the user is advised to take appropriate steps to be sure that any proposed use of the product will not result in patent infringement. See SDS for Health & Safety Considerations.

*Arkema has implemented a Medical Policy regarding the use of Arkema products in Medical Devices applications that are in contact with the body or circulating bodily fluids (<http://www.arkema.com/en/social-responsibility/responsible-product-management/medical-device-policy/index.html>) Arkema has designated Medical grades to be used for such Medical Device applications. Products that have not been designated as Medical grades are not authorized by Arkema for use in Medical Device applications that are in contact with the body or circulating bodily fluids. In addition, Arkema strictly prohibits the use of any Arkema products in Medical Device applications that are implanted in the body or in contact with bodily fluids or tissues for greater than 30 days. The Arkema trademarks and the Arkema name shall not be used in conjunction with customers' medical devices, including without limitation, permanent or temporary implantable devices, and customers shall not represent to anyone else, that Arkema allows, endorses or permits the use of Arkema products in such medical devices.*

*It is the sole responsibility of the manufacturer of the medical device to determine the suitability (including biocompatibility) of all raw materials, products and components, including any medical grade Arkema products, in order to ensure that the final end-use product is safe for its end use; performs or functions as intended; and complies with all applicable legal and regulatory requirements (FDA or other national drug agencies) It is the sole responsibility of the manufacturer of the medical device to conduct all necessary tests and inspections and to evaluate the medical device under actual end-use requirements and to adequately advise and warn purchasers, users, and/or learned intermediaries (such as physicians) of pertinent risks and fulfill any postmarket surveillance obligations. Any decision regarding the appropriateness of a particular Arkema material in a particular medical device should be based on the judgment of the manufacturer, seller, the competent authority, and the treating physician.*