

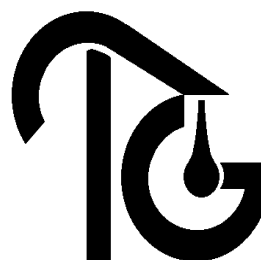
TENNANTS DISTRIBUTION LIMITED

NORTHERN DIVISION
HAZELBOTTOM ROAD
CHEETHAM
MANCHESTER
M8 0GR

TEL 44(0)161 205 4454

FAX 44(0)161 203 4298

E-mail sales.manchester@tennantsdistribution.com



SOUTHERN DIVISION
BOTANY WAY
PURFLEET
ESSEX

RM19 1SN

TEL 44 (0)1708 860075

FAX 44 (0)1708 860074

PRODUCT DATA SHEET

(This booklet incorporates the Specification and M.S.D.S.)

PRODUCT		DIALLYL PHTHALATE®	
CAS NO.	13-17-9		
TARIFF NO.			
U.N NO.	3082		
EINECS NO.	205-016-3		
IMCO CLASS			
HAZARDS	HARMFUL DANGEROUS FOR THE ENVIRONMENT		
SPECIFICATION REFERENCE	DIPH/1	DATE JAN 10	
REFERENCE NO.	DIPH/1	DATE JAN 10	
PREVIOUS EDITION.		DATE	

PRODUCT SPECIFICATION

Product Name	Diallyl Phthalate®
Alternative Name	(1,2-Benzenedicarboxylic acid, di-2-propenyl ester)
Product Grade	

SALES SPECIFICATION

Appearance	Clear and free from suspended matter
Colour (Pt/Co)	100 max
Acidity (as phthalic) % mass	0.05 max
Ester % mass	99 min
Iodine Number g/100g	196 min
Density (20°C)	1.115 to 1.121

Additional Information

Molecular Weight	246.26
------------------	--------

Application

Diallyl Phthalate® is a stable ester of high purity, capable of undergoing polymerisation at moderate temperatures to yield thermosetting or thermoplastic resins, possessing valuable properties for adhesives, coatings, casting and potting compounds. It meets the recommendations of the FDA 175.105 (adhesives) and sections 176.170, 176.180 (components of paper and cardboard with aqueous and fatty food and dry food respectively). It may also be copolymerised with a variety of common monomers, or used as a reactive diluent. Used as a partial replacement for styrene in crosslinking polyesters. Diallyl Phthalate produces materials showing up to 25% less shrinkage on cure. It may also be employed in self priming PVC organosols for steel coating, or incorporated into EPDM rubber to improve the adhesive strength

NOTES

Exclusion of Liability

Information contained in this publication is accurate to the best of the knowledge and belief of Tennants.

Any information or advice obtained from Tennants otherwise than by means of this publication and whether relating to Tennants materials or other materials, is also given in good faith. However, it remains at all times the responsibility of the customer to ensure that Tennants materials are suitable for the particular purpose intended.

Tennants accepts no liability whatsoever (except as otherwise provided by law) arising out of the use of information supplied, the application, adaptation or processing of the products described herein, the use of other materials in lieu of Tennants materials or the use of Tennants materials in conjunction with such other materials.

Health and Safety

A Material Safety Data Sheet has been issued describing the health, safety and environmental properties of this product, identifying the potential hazards and giving advice on the handling precautions and emergency procedures. This must be consulted fully before handling, storage and use.

SAFETY DATA SHEET

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY

Product:	Diallyl Phthalate®		
Use:	Chemical intermediate		
COMPANY:	TENNANTS DISTRIBUTION LIMITED		
	Hazelbottom Road	Botany Way	
	Cheetham	Purfleet	
	Manchester	Essex	
	M8 0GR	RM19 1SN	
	Tel No. 44(0)161 205 4454	Tel No. 44(0)1708 860075	
	Fax No. 44(0)161 203 4298	Tel No. 44(0)1708 860074	
	Emergency Tel No.	44(0)844 335 0001 (24 hours)	
	Email:	msds@tennantsdistribution.com	

2. HAZARDS IDENTIFICATION

Hazard Designation	Xn Harmful
	N Dangerous for the environment
Risk Phrases	R22 Harmful if swallowed
	R50/53 Very toxic to aquatic organisms, may cause long term adverse effects in the aquatic environment

3. COMPOSITION/INFORMATION ON INGREDIENTS

CAS No.	131-17-9 Diallyl Phthalate
EC No.	205-016-3
Index No.	607-086-00-4

4. FIRST AID MEASURES

General Advice	Instantly remove any clothing soiled by the product
Inhalation	Supply fresh air; consult doctor in case of complaints
Skin Contact	Instantly wash with water and soap and rinse thoroughly. If skin irritation continues, consult a doctor
Eye Contact	Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor
Ingestion	Rinse out mouth with water. Do not induce vomiting; instantly call for medical help

5. FIRE FIGHTING MEASURES

Extinguishing Media	Water spray jet, alcohol resistant foam, fire extinguishing powder, carbon dioxide (CO ₂)
Unsuitable Extinguishing Media	Water with a full water jet
Special Hazards	Formation of toxic gases is possible during heating or in case of fire. Carbon monoxide (CO), Carbon dioxide (CO ₂), aldehyde, toxic/irritating gases
Protective Equipment for Fire Fighting	Wear self contained breathing apparatus
Additional Information	Cool endangered containers with water spray jet. Dispose of fire debris and contaminated fire fighting water in accordance with official regulations. Collect contaminated fire fighting water separately. It must not enter drain

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions	Wear protective clothing
Environmental Precautions	Do not allow to enter drainage system, surface or ground water. Inform respective authorities in case product reaches water or sewage system. Keep contaminated washing water and dispose of appropriately. Prevent from spreading (e.g. by damming –in or oil barriers)
Measures For Clean Up	Absorb with liquid binding material (sand, diatomite, acid binders, universal binders, sawdust). Send for recovery or disposal in suitable containers

7. HANDLING AND STORAGE

Handling	Store in cool, dry place in tightly closed containers. Keep away from heat and direct sunlight. Use only in well ventilated areas. Prevent formation of aerosols
Protection Against Fire And Explosion	No special measures required
Storage	Store only in original container. Store away from oxidising agents. Store under dry conditions. Store container in a well ventilated position

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational Exposure Limits	WEL Long Term Value: 5 mg/m ³
General Protective And Hygiene Measures	Keep away from foodstuffs, beverages and food. Wash hands during breaks and at the end of work. Avoid contact with eyes and skin. Instantly remove any soiled or impregnated garments
Respiratory Protection	Use breathing equipment with high concentrations. Filter A2
Hand Protection	Protective gloves. Only use chemical protective gloves with CE labelling of category III
Glove Material	PVC gloves. The selection of suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer
Breakthrough Time	The exact breakthrough time has to be found out by the manufacturer of the protective gloves and has to be observed
Eye Protection	Tightly sealed safety glasses. Provide workstation with eye bathing equipment
Body Protection	Protective work clothing
Further Information	Do not introduce into waters, sewage water or soil

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Clear Liquid
Odour	Mild
Melting Point/Range	Not determined
Boiling Point/Range	305°C (ASTM D 1078-99)
Flash Point	166°C (ASTM D 92-97)
Ignition Temperature	435°C (DIN 51794-78)
Danger Of Explosion	Product does not present an explosion hazard
Density at 20°C	1.18 g/cm ³ (ASTM D 1298-99)
Solubility/Miscibility In Water	Insoluble
Viscosity, Kinematic at 20°C	12 mm ² /s (ASTM D 445-97)

10. STABILITY AND REACTIVITY

Conditions To Be Avoided	No decomposition under normal storage and handling conditions
Materials To Be Avoided	Strong oxidising agents. Strong acids
Dangerous Reactions	Reacts with strong acids and oxidising agents
Dangerous Products Of Decomposition	Carbon monoxide and carbon dioxide. Irritant gases/vapours

11. TOXICOLOGICAL INFORMATION

Acute Toxicity	LD50 Oral Rat >200 - ≤2000 mg/kg
Skin Irritation	May cause slight irritation
Eye Irritation	Irritant effect
Sensitisation	No sensitising effect known

12. ECOLOGICAL INFORMATION

Persistence And Degradability	<70% DOC reduction
Other Information	The product is difficult to biodegrade
Mobility And Bioaccumulation	Bioaccumulation is not expected to occur
Aquatic Toxicity	EC0 >10 - ≤100 mg/l (bacteria) LC50 ≤1 mg/l (fish)
Other Information	<60% BOD/COD
General Notes	Do not allow product to reach ground water, water bodies or sewage system. Danger to drinking water if even small quantities leak into soil. Very toxic for aquatic organisms

13. DISPOSAL CONSIDERATIONS

Product Disposal	Must be specially treated under adherence to official regulations
Uncleaned Packaging	Disposal must be in accordance to official regulations. Empty contaminated packaging thoroughly. They can be recycled after thorough and proper cleaning. Packaging that cannot be cleaned are to be disposed of in the same manner as the product

14. TRANSPORT INFORMATION

ADR/RID	
Class	9 Miscellaneous dangerous substances and articles
Kemler No.	90
UN No.	3082
Packaging Group	III
Label	9
Proper Shipping Name	3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,

IMDG	N.O.S. (diallyl phthalate)
UN No.	9
Label	3082
Packaging Group	9
EmS No.	III
Marine Pollutant	F-A, S-F
Proper Shipping Name	Yes (P) 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (diallyl phthalate)
ICAO/IATA	
Class	9
UN No.	3082
Label	9
Packaging Group	III
Proper Shipping Name	3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (diallyl phthalate)
Transport/Additional Information	UK EAC: 3Z

15. REGULATORY INFORMATION

Designation According To EC Guidelines

The product has been classified and labelled in accordance with EC Directives/Ordinance on Hazardous Materials (GefStoffV)

Classification	Xn Harmful N Dangerous for the environment
R phrases	R22 Harmful if swallowed R50/53 Very toxic to aquatic organisms, may cause long term adverse effects in the aquatic environment
S phrases	S46 If swallowed, seek medical advice immediately and show this container or label
National Inventories	Listed in the following country inventories EINECS ENCS PICCS ECL DSL TSCA

16. OTHER INFORMATION