



PALATINE PAINTS



SAFETY DATA SHEET Direct To Metal Paint (DTM)

According to Regulation (EC) No 1907/2006, Annex II, as amended by Regulation (EU) No 453/2010

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product name Direct To Metal Paint (DTM)
Product number PDTMG1L - PDTMG2.5L - PDTMG5L - PDTMS1L - PDTMS2.5L - PDTMS5L

1.2. Relevant identified uses of the substance or mixture and uses advised against Identified uses

Paint.

1.3. Details of the supplier of the safety data sheet

Supplier Palatine Paints & Chemicals Limited
55 Smallbrook Lane, Leigh,
Lancashire,
WN7 5PZ
UK
+44 (0)1942 884122 (T)
sales@palatinepaints.co.uk

Contact person Technical Department - 08.00 - 17.00 hrs Mon - Thurs, 08.00 - 13.00 hrs Fri, as above

1.4. Emergency telephone number

Emergency telephone +44 (0) 1942 884 122 08.00 - 17.00 hrs Mon - Thurs, 08.00 - 13.00 hrs Fri)

SDS No. 20275

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (EC 1272/2008)

Physical hazards Flam. Liq. 3 - H226
Health hazards STOT SE 3 - H336
Environmental hazards Aquatic Chronic 2 - H411

2.2. Label elements

Pictogram



Signal word Warning

Hazard statements H226 Flammable liquid and vapour.
H336 May cause drowsiness or dizziness.
H411 Toxic to aquatic life with long lasting effects.

Precautionary statements	<p>P101 If medical advice is needed, have product container or label at hand.</p> <p>P102 Keep out of reach of children.</p> <p>P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.</p> <p>P271 Use only outdoors or in a well-ventilated area.</p> <p>P273 Avoid release to the environment.</p> <p>P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.</p> <p>P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.</p> <p>P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</p> <p>P403+P235 Store in a well-ventilated place. Keep cool.</p> <p>P501 Dispose of contents/ container in accordance with national regulations.</p>
Supplemental label information	EUH066 Repeated exposure may cause skin dryness or cracking.
Contains	HYDROCARBONS, C9-C11, <2% AROMATICS
Supplementary precautionary statements	<p>P260 Do not breathe vapour/ spray.</p> <p>P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.</p> <p>P370+P378 In case of fire: Use foam, carbon dioxide, dry powder or water fog to extinguish.</p> <p>P391 Collect spillage.</p>

2.3. Other hazards

This substance is not classified as PBT or vPvB according to current EU criteria.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

HYDROCARBONS, C9-C11, <2% AROMATICS		30-60%
CAS number: —	EC number: 919-857-5	REACH registration number: 01-2119463258-33-XXXX
Classification	Classification (67/548/EEC or 1999/45/EC)	
Flam. Liq. 3 - H226	Xn;R65. R10,R66,R67.	
STOT SE 3 - H336		
Asp. Tox. 1 - H304		

TRIZINC BIS(ORTHOPHOSPHATE)		5-15%
CAS number: 7779-90-0	EC number: 231-944-3	REACH registration number: 01-2119485044-40-0000
M factor (Acute) = 1	M factor (Chronic) = 1	
Classification	Classification (67/548/EEC or 1999/45/EC)	
Aquatic Acute 1 - H400	N;R50/53	
Aquatic Chronic 1 - H410		

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

Composition comments The product contains organic solvents.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information	Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Never give anything by mouth to an unconscious person.
Inhalation	Remove affected person from source of contamination. Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Get medical attention if any discomfort continues. Place unconscious person on their side in the recovery position and ensure breathing can take place.
Ingestion	DO NOT induce vomiting. Get medical attention immediately. Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing.
Skin contact	Remove affected person from source of contamination. Remove contaminated clothing immediately and wash skin with soap and water.
Eye contact	Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes and get medical attention.

4.2. Most important symptoms and effects, both acute and delayed

General information Get medical attention promptly if symptoms occur after washing.

4.3. Indication of any immediate medical attention and special treatment needed

Notes for the doctor No specific recommendations.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media Extinguish with foam, carbon dioxide, dry powder or water fog. Do not use water jet as an extinguisher, as this will spread the fire.

5.2. Special hazards arising from the substance or mixture

Specific hazards Toxic gases or vapours. FLAMMABLE. Solvent vapours may form explosive mixtures with air.

5.3. Advice for firefighters

Protective actions during firefighting Risk of re-ignition after fire has been extinguished. Cool containers exposed to flames with water until well after the fire is out. Avoid the spillage or runoff entering drains, sewers or watercourses.

Special protective equipment for firefighters Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions Avoid inhalation of vapours and contact with skin and eyes. Provide adequate ventilation. No smoking, sparks, flames or other sources of ignition near spillage. Ensure suitable respiratory protection is worn during removal of spillages in confined areas.

6.2. Environmental precautions

Environmental precautions Do not discharge into drains or watercourses or onto the ground. Contain spillage with sand, earth or other suitable non-combustible material. Spillages or uncontrolled discharges into watercourses must be reported immediately to the Environmental Agency or other appropriate regulatory body.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up Eliminate all sources of ignition. No smoking, sparks, flames or other sources of ignition near spillage. Provide adequate ventilation. Avoid the spillage or runoff entering drains, sewers or watercourses. Absorb in vermiculite, dry sand or earth and place into containers. Collect and place in suitable waste disposal containers and seal securely. For waste disposal, see Section 13.

6.4. Reference to other sections

Reference to other sections For personal protection, see Section 8.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Usage precautions Observe any occupational exposure limits for the product or ingredients. Avoid inhalation of vapours and spray/mists. Keep away from heat, sparks and open flame. Avoid spilling. Avoid contact with skin and eyes. Provide adequate ventilation. Avoid inhalation of vapours. Use approved respirator if air contamination is above an acceptable level. Do not eat, drink or smoke when using the product. The Manual Handling Operations Regulations may apply to the handling of containers of this product. To assist employers, the following method of calculating the weight for any pack size is given. Take the pack size volume in litres and multiply this figure by the specific gravity value given in section 9. This will give the net weight of the coating in kilograms. Allowance will then have to be made for the immediate packaging to give an approximate gross weight.

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions Store in closed original container at temperatures between 5°C and 25°C. Keep away from heat, sparks and open flame. Keep container tightly closed. Keep containers upright. Store away from the following materials: Oxidising materials. Alkalis. Acids.

Storage class Flammable liquid storage. The storage and use of this product is subject to the Dangerous Substances and Explosive Atmospheres Regulations (DSEAR). The requirements are given in the HSE Approved Code of Practice and Guidance, Storage of Dangerous Substances: DSEAR. Up to 250 litres of liquids with a flashpoint above 32C but below 55C may be kept in a workroom provided they are kept in closed containers in a marked, fire-resisting cupboard or bin. Larger quantities must be kept in a separate, marked storeroom conforming to the structural requirements contained in the HSE guidance note Storage of Flammable Liquids in Containers.

7.3. Specific end use(s)

Specific end use(s) The identified uses for this product are detailed in Section 1.2.

Usage description Collect and place in suitable waste disposal containers and seal securely. Label the containers containing waste and contaminated materials and remove from the area as soon as possible.

SECTION 8: Exposure controls/Personal protection

8.1. Control parameters

Occupational exposure limits

Calcium Carbonate

TRIZINC BIS(ORTHOPHOSPHATE)

Long-term exposure limit (8-hour TWA): 10 mg/m³

HYDROCARBONS, C9-C11, <2% AROMATICS

DNEL	Consumer - Oral; Long term systemic effects: 300 mg/kg/day Industry - Inhalation; Long term systemic effects: 1500 mg/m ³ Industry - Dermal; Long term systemic effects: 300 mg/kg/day Consumer - Dermal; Long term systemic effects: 300 mg/kg/day Consumer - Inhalation; Long term systemic effects: 900 mg/m ³
PNEC	No PNEC available. Substance is a hydrocarbon UVCB. Standard tests for this endpoint are intended for single substances and are not appropriate for the risk assessment of this complex substance.

TRIZINC BIS(ORTHOPHOSPHATE) (CAS: 7779-90-0)

DNEL	Consumer - Inhalation; Long term systemic effects: 2.5 mg/m ³ - Inhalation; : 5.0 insoluble Zn mg/m ³ Professional - Inhalation; Long term systemic effects: 5 mg/m ³ - Inhalation; : 1.0 soluble Zn mg/m ³ Professional - Dermal; Long term systemic effects: 83 mg/kg/day Consumer - Dermal; Long term systemic effects: 83 mg/kg/day Consumer - Oral; Long term systemic effects: 0.83 mg/kg/day
PNEC	- Fresh water; 0.02 Zn mg/l - marine water; 0.006 Zn mg/l - Sediment (Freshwater); 117.8 mg/kg - Sediment (Marinewater); 56.5 Zn mg/kg - Soil; 35.6 Zn mg/kg - STP; 0.1 Zn mg/l

8.2. Exposure controls**Protective equipment****Appropriate engineering controls**

Provide adequate general and local exhaust ventilation. Observe any occupational exposure limits for the product or ingredients.

Eye/face protection

Wear chemical splash goggles.

Hand protection

To protect hands from chemicals, gloves should comply with European Standards EN388 and 374. As a general principle, exposure should be managed by means other than the provision of protective gloves. Manufacturer's performance data suggest that the optimum glove for use should be: Wear protective gloves made of the following material: Nitrile rubber. Thickness: ≥ 0.31 mm Permeation breakthrough time according to EN374 - class: (1-6) e.g. minimum 480 mins. Caution: The performance of gloves under actual working conditions can be significantly affected by many factors and the information provided according to EN374 may not accord with what is achieved in practice. We recommend that expert professional advice is sought that takes into account of the work processes and working environment applicable for each task where gloves are to be worn.

Other skin and body protection

Wear appropriate clothing to prevent reasonably probable skin contact.

Hygiene measures

No specific hygiene procedures recommended but good personal hygiene practices should always be observed when working with chemical products.

Respiratory protection

Respiratory protection must be used if the airborne contamination exceeds the recommended occupational exposure limit. In case of inadequate ventilation use suitable respirator. It is recommended to use respiratory equipment with combination filter, type A2/P2.

SECTION 9: Physical and chemical properties**9.1. Information on basic physical and chemical properties**

Appearance	Viscous liquid. Coloured liquid.
Colour	BS 4800, BS 381C, RAL Classic, NCS
Odour	Organic solvents.
Odour threshold	Not determined.
pH	Technically not feasible.
Melting point	Not determined.
Initial boiling point and range	Not determined.
Flash point	38 approx. °C Closed cup.
Evaporation rate	Not determined.
Evaporation factor	Not determined.
Upper/lower flammability or explosive limits	Not determined.
Other flammability	Not determined.
Vapour pressure	Not determined.
Vapour density	heavier than air
Relative density	1.30 approx. @ @ 20°C
Solubility(ies)	Insoluble in water
Partition coefficient	Not determined.
Auto-ignition temperature	Not determined.
Decomposition Temperature	Not determined.
Viscosity	6 (Rotothinner) P @ 25°C
Explosive properties	Not determined.
Explosive under the influence of a flame	Not considered to be explosive.
Oxidising properties	Not determined.

9.2. Other information**SECTION 10: Stability and reactivity****10.1. Reactivity**

Reactivity There are no known reactivity hazards associated with this product.

10.2. Chemical stability

Stability Stable at normal ambient temperatures and when used as recommended.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions Not determined.

10.4. Conditions to avoid

Conditions to avoid Avoid heat, flames and other sources of ignition. Avoid contact with the following materials:
Acids. Oxidising agents.

10.5. Incompatible materials

Materials to avoid Strong alkalis. Strong acids. Strong oxidising agents.

10.6. Hazardous decomposition products

Hazardous decomposition products Oxides of carbon. Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours.

SECTION 11: Toxicological information**11.1. Information on toxicological effects**

Inhalation Vapour from this product may be hazardous by inhalation. Vapour may irritate respiratory system/lungs.

Ingestion Liquid irritates mucous membranes and may cause abdominal pain if swallowed.

Skin contact Product has a defatting effect on skin. Repeated exposure may cause skin dryness or cracking. May cause allergic contact eczema. Prolonged or repeated exposure may cause severe irritation.

Eye contact May cause temporary eye irritation.

Acute and chronic health hazards This product has low toxicity. Only large quantities are likely to have adverse effects on human health.

Route of exposure Inhalation Skin absorption. Ingestion. Skin and/or eye contact.

Medical considerations Skin disorders and allergies. Avoid vomiting and stomach flushing because of the risk of aspiration.

Toxicological information on ingredients.**HYDROCARBONS, C9-C11, <2% AROMATICS****Acute toxicity - oral**

Acute toxicity oral (LD₅₀ mg/kg) 5,100.0

Species Rat

ATE oral (mg/kg) 5,100.0

Acute toxicity - dermal

Acute toxicity dermal (LD₅₀ mg/kg) 5,100.0

Species Rabbit

ATE dermal (mg/kg) 5,100.0

Acute toxicity - inhalation

Acute toxicity inhalation (LC₅₀ vapours mg/l) 5,100.0

Species Rat

ATE inhalation (vapours mg/l) 5,100.0

Skin corrosion/irritation

Skin corrosion/irritation Not irritating.

Serious eye damage/irritation

Serious eye damage/irritation Not irritating.

Respiratory sensitisation

Respiratory sensitisation	Not sensitising.
<u>Skin sensitisation</u>	
Skin sensitisation	Not sensitising.
<u>Germ cell mutagenicity</u>	
Genotoxicity - in vitro	Chromosome aberration: Negative. This substance has no evidence of mutagenic properties.
<u>Carcinogenicity</u>	
Carcinogenicity	Based on available data the classification criteria are not met.
<u>Reproductive toxicity</u>	
Reproductive toxicity - fertility	Fertility: - , Inhalation, Rat This substance has no evidence of toxicity to reproduction.
Reproductive toxicity - development	Developmental toxicity: - : , Inhalation, Rat This substance has no evidence of toxicity to reproduction.
<u>Specific target organ toxicity - repeated exposure</u>	
STOT - repeated exposure	Not available.
<u>Aspiration hazard</u>	
Aspiration hazard	Kinematic viscosity <= 20.5 mm ² /s.
Inhalation	Vapours may cause drowsiness and dizziness. Central nervous system depression.
Ingestion	Harmful: danger of serious damage to health by prolonged exposure if swallowed.
Skin contact	Product has a defatting effect on skin. May cause allergic contact eczema.
Eye contact	No specific health hazards known.
Route of exposure	Inhalation Dermal

SECTION 12: Ecological information

Ecotoxicity The product contains substances which are toxic to aquatic organisms and which may cause long term adverse effects in the aquatic environment.

12.1. Toxicity

Ecological information on ingredients.

HYDROCARBONS, C9-C11, <2% AROMATICS

Acute aquatic toxicity

Acute toxicity - fish	LC50, > 96 hours: 1000 mg/l, Oncorhynchus mykiss (Rainbow trout) Substance did not cause acute toxicity to fish
Acute toxicity - aquatic invertebrates	Substance did not cause acute toxicity to the freshwater invertebrates EC ₅₀ , 48 hours: >1000 mg/l, Daphnia magna
Acute toxicity - aquatic plants	EC ₅₀ , > 72 hours: 1000 mg/l, Freshwater algae Substance did not cause acute toxicity to the freshwater green algae
Acute toxicity - microorganisms	EC ₅₀ , >: 100 mg/l, Activated sludge
<u>Chronic aquatic toxicity</u>	

Chronic toxicity - fish early life stage NOEC, 28 days: 0.131 mg/l, Oncorhynchus mykiss (Rainbow trout)

Chronic toxicity - aquatic invertebrates NOEC, 28 days: 0.23 mg/l, Daphnia magna

12.2. Persistence and degradability

Persistence and degradability The product is not expected to be biodegradable.

Ecological information on ingredients.

HYDROCARBONS, C9-C11, <2% AROMATICS

Persistence and degradability The product is readily biodegradable.

Phototransformation Oxidises rapidly by photo-chemical reactions in air

Biodegradation - 80 Degradation (%): 28 days
Test - 301F Ready Biodegradability - Manometric Respiratory Test

12.3. Bioaccumulative potential

Bioaccumulative potential The product contains potentially bioaccumulating substances.

Partition coefficient Not determined.

Ecological information on ingredients.

HYDROCARBONS, C9-C11, <2% AROMATICS

Bioaccumulative potential The product contains potentially bioaccumulating substances.

Partition coefficient log Pow: 5 - 6.7

12.4. Mobility in soil

Mobility The product contains volatile organic compounds (VOCs) which will evaporate easily from all surfaces.

Ecological information on ingredients.

HYDROCARBONS, C9-C11, <2% AROMATICS

Mobility The product contains volatile organic compounds (VOCs) which will evaporate easily from all surfaces. Readily absorbed into soil.

Adsorption/desorption coefficient Not available.

Surface tension 24.5 mN/m @ 20°C

12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment This product does not contain any substances classified as PBT or vPvB.

Ecological information on ingredients.

HYDROCARBONS, C9-C11, <2% AROMATICS

Results of PBT and vPvB assessment This substance is not classified as PBT or vPvB according to current EU criteria.

12.6. Other adverse effects

Other adverse effects The product contains volatile organic compounds (VOCs) which have a photochemical ozone creation potential.

Ecological information on ingredients.HYDROCARBONS, C9-C11, <2% AROMATICS

Other adverse effects Not known.

SECTION 13: Disposal considerations13.1. Waste treatment methods

General information	Avoid the spillage or runoff entering drains, sewers or watercourses.
Disposal methods	Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.
Waste class	When this coating, in its liquid state, as supplied, becomes a waste, it is categorised as hazardous waste, with code 08 01 11* (SOLVENT BASED LIQUID WASTE). Part-used containers, not drained and/or rigorously scraped out and containing dried residues of the supplied coating, are categorised as hazardous waste, with code 08 01 11* (SOLVENT BASED LIQUID WASTE). If mixed with other wastes, the above waste code may not be applicable. Used containers, drained and/or rigorously scraped out and containing dry residues of the supplied coating, are categorised as non-hazardous waste, with code 15 01 02 (plastic packaging) or 15 01 04 (metal packaging).

SECTION 14: Transport information

General This product is packed in accordance with the Limited Quantity Provisions of CDGCPL2, ADR and IMDG.

14.1. UN number

UN No. (ADR/RID)	1263
UN No. (IMDG)	1263
UN No. (ICAO)	1263

14.2. UN proper shipping name

Proper shipping name (ADR/RID) PAINT, Contains Zinc Phosphate, Class 9, Packing Group III, MARINE POLLUTANT, and Low Aromatic White Spirit, Class 3, Packing Group III (38 °C)

Proper shipping name (IMDG) PAINT

Proper shipping name (ICAO) PAINT

Proper shipping name (ADN) PAINT

14.3. Transport hazard class(es)

ADR/RID class	1263
IMDG class	3
ICAO class/division	3

Transport labels

14.4. Packing group

ADR/RID packing group	III
IMDG packing group	III
ICAO packing group	III

Tunnel restriction code (D/E)

14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

EU legislation Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended).
Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended).

Guidance Safety Data Sheets for Substances and Preparations.

15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

Inventories

EU - EINECS/ELINCS

None of the ingredients are listed or exempt.

SECTION 16: Other information

Abbreviations and acronyms used in the safety data sheet ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.
ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways.
RID: European Agreement concerning the International Carriage of Dangerous Goods by Rail.
IATA: International Air Transport Association.
ICAO: Technical Instructions for the Safe Transport of Dangerous Goods by Air.
IMDG: International Maritime Dangerous Goods.
CAS: Chemical Abstracts Service.
ATE: Acute Toxicity Estimate.
LC₅₀: Lethal Concentration to 50 % of a test population.
LD₅₀: Lethal Dose to 50% of a test population (Median Lethal Dose).
EC₅₀: 50% of maximal Effective Concentration.
PBT: Persistent, Bioaccumulative and Toxic substance.
vPvB: Very Persistent and Very Bioaccumulative.

Classification abbreviations and acronyms Acute Tox. = Acute toxicity
Aquatic Acute = Hazardous to the aquatic environment (acute)
Aquatic Chronic = Hazardous to the aquatic environment (chronic)
Asp. Tox. = Aspiration hazard
Flam. Liq. = Flammable liquid
STOT RE = Specific target organ toxicity-repeated exposure
STOT SE = Specific target organ toxicity-single exposure

Training advice Read and follow manufacturer's recommendations.

Revision comments	Issued in new format for Reach compliance in accordance with EC 1272/2008 Issued in accordance with Annex II to REACH, as amended by Commission Regulation (EU) No. 2015/830 Revision to sections 2, 8, 11 & 12 for reclassification of solvents.
Issued by	Technical Dept. (P.E.)
Revision date	03/02/2023
Revision	2
Supersedes date	15/06/2016
SDS number	20315
SDS status	Approved.
Hazard statements in full	H226 Flammable liquid and vapour. H302 Harmful if swallowed. H304 May be fatal if swallowed and enters airways. H315 Causes skin irritation. H317 May cause an allergic skin reaction. H318 Causes serious eye damage. H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled. H335 May cause respiratory irritation. H336 May cause drowsiness or dizziness. H400 Very toxic to aquatic life. H410 Very toxic to aquatic life with long lasting effects. H411 Toxic to aquatic life with long lasting effects.
Signature	Initials: JH