



MORDENT SOLUTION TM38

A solution used as a pre-treatment for galvanised steel.

Recommended Areas of Use

For application to galvanised steel to modify metal surface allowing improved adhesion of subsequent coatings.

Certificates & Approvals

Manufactured under the auspices of an ISO 9001:2008 quality & ISO 14001:2004 environmental management systems.

Properties

Theoretical Coverage	20 m ² /L	Colour	Pale blue
Density	0.99 kg/L	VOC	0 g/L
Flash point (Abel closed cup)	30°C	Shelf life	6 months minimum in original unopened containers.

Application Information

Galvanised steel surface should be cleaned & degreased using Bradite Degreaser TD39 or steam cleaning, before application of Bradite Mordent solution TM38. Apply evenly using a soft brush and allow approximately 20 minutes to react. Reaction progress is indicated with a colour change to an even dark grey or black.

After the reaction has taken place the surface should be thoroughly rinsed with clean water. Treated surface should then be allowed to thoroughly dry prior to all subsequent painting operations.

Brush – supplied ready for use.

Spraying – this product should not be sprayed under any circumstance.

Cleaning

Clean all equipment immediately after use with clean water for best results.

Summary Safety Information

Always refer to the Health and Safety sheet for the product before use, and observe the warning phrases on the label.

Disclaimer - The information on this data sheet is correct to the best of our knowledge and experience. Bradite reserves the right to modify data contained herein, without notice. The information supplied does not absolve users from responsibility to carry out their own tests and experiments, nor does it imply any legally binding assurance of certain properties or suitability for any specific purpose. Conditions of service and application may be beyond our control, so no liability whatsoever can be accepted on the basis of the information supplied herein.

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

1.1. Product identifier

Product name: MORDANT SOLUTION

Product code: TM38

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

Use of substance / mixture: PC9a: Coatings and paints, thinners, paint removers.

1.3. Details of the supplier of the safety data sheet

Company name: Bradite Paints
Ogwen Valley Works
Bethesda
Gwynedd
LL57 4YP
United Kingdom

Tel: +44 (0)1248 600315

Fax: +44 (0)1248 602782

Email: sales@bradite.com

1.4. Emergency telephone number

Emergency tel: +44 (0)1248 600315
(office hours only)

Section 2: Hazards identification

2.1. Classification of the substance or mixture

Classification under CLP: Eye Irrit. 2: H319; Aquatic Chronic 3: H412; Flam. Liq. 3: H226; STOT SE 3: H336

Most important adverse effects: Flammable liquid and vapour. Causes serious eye irritation. May cause drowsiness or dizziness. Harmful to aquatic life with long lasting effects.

2.2. Label elements

Label elements:

Hazard statements: H226: Flammable liquid and vapour.
H319: Causes serious eye irritation.
H336: May cause drowsiness or dizziness.
H412: Harmful to aquatic life with long lasting effects.

Signal words: Warning

Hazard pictograms: GHS02: Flame
GHS07: Exclamation mark



SAFETY DATA SHEET

MORDANT SOLUTION

Page: 2

Precautionary statements: P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P241: Use explosion-proof electrical/ventilating/lighting/.. equipment.
P280: Wear protective gloves/protective clothing/eye protection/face protection.
P303+361+353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304+340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+351+338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

2.3. Other hazards

Other hazards: In use, may form flammable / explosive vapour-air mixture.

PBT: This product is not identified as a PBT/vPvB substance.

Section 3: Composition/information on ingredients

3.2. Mixtures

Hazardous ingredients:

1-METHOXY-2-PROPANOL - REACH registered number(s): 01-2119457435-35

EINECS	CAS	PBT / WEL	CLP Classification	Percent
203-539-1	107-98-2	-	Flam. Liq. 3: H226; STOT SE 3: H336	10-30%

PROPAN-2-OL - REACH registered number(s): 01-2119457558-25

200-661-7	67-63-0	-	Flam. Liq. 2: H225; Eye Irrit. 2: H319; STOT SE 3: H336	10-30%
-----------	---------	---	---	--------

ORTHOPHOSPHORIC ACID - REACH registered number(s): 01-2119485924-24

231-633-2	7664-38-2	-	Skin Corr. 1B: H314	1-10%
-----------	-----------	---	---------------------	-------

COPPER (II) CARBONATE - COPPER (II) HYDROXIDE (1:1)

235-113-6	12069-69-1	-	Acute Tox. 4: H302; Aquatic Chronic 1: H410; Aquatic Acute 1: H400	1-10%
-----------	------------	---	--	-------

Section 4: First aid measures

4.1. Description of first aid measures

Skin contact: Remove all contaminated clothes and footwear immediately unless stuck to skin. Wash immediately with plenty of soap and water.

Eye contact: Bathe the eye with running water for 15 minutes. Consult a doctor.

Ingestion: Wash out mouth with water. Consult a doctor.

Inhalation: Remove casualty from exposure ensuring one's own safety whilst doing so. Consult a doctor.

[cont...]

SAFETY DATA SHEET

MORDANT SOLUTION

Page: 3

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

Skin contact: There may be irritation and redness at the site of contact.

Eye contact: There may be irritation and redness. The eyes may water profusely.

Ingestion: There may be soreness and redness of the mouth and throat.

Inhalation: There may be irritation of the throat with a feeling of tightness in the chest. Exposure may cause coughing or wheezing.

Delayed / immediate effects: Immediate effects can be expected after short-term exposure.

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

Immediate / special treatment: Eye bathing equipment should be available on the premises.

Section 5: Fire-fighting measures

5.1. Extinguishing media

Extinguishing media: Alcohol resistant foam. Water spray. Carbon dioxide. Dry chemical powder. Use water spray to cool containers.

5.2. Special hazards arising from the substance or mixture

Exposure hazards: Flammable. In combustion emits toxic fumes. Forms explosive air-vapour mixture.

5.3. Advice for fire-fighters

Advice for fire-fighters: Wear self-contained breathing apparatus. Wear protective clothing to prevent contact with skin and eyes.

Section 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions: Refer to section 8 of SDS for personal protection details. If outside do not approach from downwind. If outside keep bystanders upwind and away from danger point. Mark out the contaminated area with signs and prevent access to unauthorised personnel. Turn leaking containers leak-side up to prevent the escape of liquid. Eliminate all sources of ignition.

6.2. Environmental precautions

Environmental precautions: Do not discharge into drains or rivers. Contain the spillage using bunding.

6.3. Methods and material for containment and cleaning up

Clean-up procedures: Absorb into dry earth or sand. Transfer to a closable, labelled salvage container for disposal by an appropriate method. Do not use equipment in clean-up procedure which may produce sparks.

6.4. Reference to other sections

Reference to other sections: Refer to section 8 of SDS.

[cont...]

SAFETY DATA SHEET

MORDANT SOLUTION

Page: 4

Section 7: Handling and storage

7.1. Precautions for safe handling

Handling requirements: Avoid direct contact with the substance. Ensure there is sufficient ventilation of the area.
Do not handle in a confined space. Avoid the formation or spread of mists in the air.
Smoking is forbidden. Use non-sparking tools.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions: Store in a cool, well ventilated area. Keep container tightly closed. Keep away from sources of ignition. Prevent the build up of electrostatic charge in the immediate area.
Ensure lighting and electrical equipment are not a source of ignition.

Suitable packaging: Must only be kept in original packaging.

Storage quantity limits: 250 L

7.3. Specific end use(s)

Specific end use(s): No data available.

Section 8: Exposure controls/personal protection

8.1. Control parameters

Hazardous ingredients:

1-METHOXY-2-PROPANOL

Workplace exposure limits:

Respirable dust

State	8 hour TWA	15 min. STEL	8 hour TWA	15 min. STEL
UK	375 mg/m ³	560 mg/m ³	-	-

PROPAN-2-OL

UK	999 mg/m ³	1250 mg/m ³	-	-
----	-----------------------	------------------------	---	---

ORTHOPHOSPHORIC ACID...100%

UK	1 mg/m ³	2 mg/m ³	-	-
----	---------------------	---------------------	---	---

DNEL/PNEC Values

DNEL / PNEC No data available.

8.2. Exposure controls

Engineering measures: Ensure there is sufficient ventilation of the area. Ensure lighting and electrical equipment are not a source of ignition.

Respiratory protection: Self-contained breathing apparatus must be available in case of emergency.

Hand protection: Protective gloves.

Eye protection: Safety glasses. Ensure eye bath is to hand.

Skin protection: Protective clothing.

Environmental: Prevent from entering in public sewers or the immediate environment.

[cont...]

SAFETY DATA SHEET

MORDANT SOLUTION

Page: 5

Section 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

State: Liquid

Colour: Pale blue

Odour: Characteristic odour

Evaporation rate: Slow

Oxidising: Non-oxidising (by EC criteria)

Solubility in water: Miscible in all proportions

Also soluble in: Ethanol.

Viscosity: Non-viscous

Boiling point/range°C: >35

Melting point/range°C: No data available.

Flammability limits %: lower: No data available.

upper: 0

Flash point°C: 23 - 60

Part.coeff. n-octanol/water: No data available.

Autoflammability°C: No data available.

Vapour pressure: 4.4 kPa @ 20 deg C

Relative density: 0.99

pH: 2.5

9.2. Other information

Other information: Not applicable.

Section 10: Stability and reactivity

10.1. Reactivity

Reactivity: Stable under recommended transport or storage conditions.

10.2. Chemical stability

Chemical stability: Stable under normal conditions. Stable at room temperature.

10.3. Possibility of hazardous reactions

Hazardous reactions: Hazardous reactions will not occur under normal transport or storage conditions.

Decomposition may occur on exposure to conditions or materials listed below.

10.4. Conditions to avoid

Conditions to avoid: Heat. Hot surfaces. Sources of ignition. Flames.

10.5. Incompatible materials

Materials to avoid: Strong oxidising agents. Strong acids.

10.6. Hazardous decomposition products

Haz. decomp. products: In combustion emits toxic fumes.

Section 11: Toxicological information

11.1. Information on toxicological effects

[cont...]

SAFETY DATA SHEET

MORDANT SOLUTION

Page: 6

Hazardous ingredients:

1-METHOXY-2-PROPANOL

IVN	RAT	LD50	4200	mg/kg
ORL	MUS	LD50	11700	mg/kg
ORL	RAT	LDLO	3739	mg/kg

PROPAN-2-OL

IVN	RAT	LD50	1088	mg/kg
ORL	MUS	LD50	3600	mg/kg
ORL	RAT	LD50	5045	mg/kg
SCU	MUS	LDLO	6	gm/kg

ORTHOPHOSPHORIC ACID...100%

ORL	RAT	LD50	1530	mg/kg
-----	-----	------	------	-------

Relevant hazards for substance:

Hazard	Route	Basis
Serious eye damage/irritation	OPT	Hazardous: calculated
STOT-single exposure	-	Hazardous: calculated

Symptoms / routes of exposure

Skin contact: There may be irritation and redness at the site of contact.

Eye contact: There may be irritation and redness. The eyes may water profusely.

Ingestion: There may be soreness and redness of the mouth and throat.

Inhalation: There may be irritation of the throat with a feeling of tightness in the chest. Exposure may cause coughing or wheezing.

Delayed / immediate effects: Immediate effects can be expected after short-term exposure.

Other information: Not applicable.

Section 12: Ecological information

12.1. Toxicity

Ecotoxicity values: No data available.

12.2. Persistence and degradability

Persistence and degradability: Biodegradable.

12.3. Bioaccumulative potential

Bioaccumulative potential: No bioaccumulation potential.

12.4. Mobility in soil

Mobility: Readily absorbed into soil.

[cont...]

SAFETY DATA SHEET

MORDANT SOLUTION

Page: 7

12.5. Results of PBT and vPvB assessment

PBT identification: This product is not identified as a PBT/vPvB substance.

12.6. Other adverse effects

Other adverse effects: Negligible ecotoxicity.

Section 13: Disposal considerations

13.1. Waste treatment methods

Disposal operations: Transfer to a suitable container and arrange for collection by specialised disposal company.

Recovery operations: Solvent reclamation/regeneration.

Waste code number: 08 01 11

Disposal of packaging: Arrange for collection by specialised disposal company.

NB: The user's attention is drawn to the possible existence of regional or national regulations regarding disposal.

Section 14: Transport information

14.1. UN number

UN number: UN1263

14.2. UN proper shipping name

Shipping name: PAINT RELATED MATERIAL

14.3. Transport hazard class(es)

Transport class: 3

14.4. Packing group

Packing group: III

14.5. Environmental hazards

Environmentally hazardous: No

Marine pollutant: No

14.6. Special precautions for user

Special precautions: No special precautions.

Tunnel code: D/E

Transport category: 3

Section 15: Regulatory information

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

Specific regulations: Not applicable.

15.2. Chemical Safety Assessment

[cont...]

SAFETY DATA SHEET

MORDANT SOLUTION

Page: 8

Section 16: Other information

Other information

Other information: This safety data sheet is prepared in accordance with Commission Regulation (EU) No 453/2010.

* indicates text in the SDS which has changed since the last revision.

Phrases used in s.2 and s.3: H225: Highly flammable liquid and vapour.

H226: Flammable liquid and vapour.

H302: Harmful if swallowed.

H314: Causes severe skin burns and eye damage.

H319: Causes serious eye irritation.

H336: May cause drowsiness or dizziness.

H400: Very toxic to aquatic life.

H410: Very toxic to aquatic life with long lasting effects.

H412: Harmful to aquatic life with long lasting effects.

Legal disclaimer: The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. This company shall not be held liable for any damage resulting from handling or from contact with the above product.