JAMORIN International

C1218 Methacrylate F (C1218MA F)

1. IDENTIFICATION

Country of origin

Germany

Supplier

Jamorin International Limited
35, Berkeley Square, Mayfier, London, W1J5BF, UK

Trade name

C1218 MA F

Relevant identified uses

Chemical

2. HAZARDS IDENTIFICATION

Classification of the substance or mixture

According to UN GHS criteria

Acute Tox.	5 (dermal)
STOT SE	3 (irritating to respiratory system)
Aquatic Acute	3
Aquatic Chronic	3

For the classifications not written out in full in this section the full text can be found in section 16.

Label elements

Globally Harmonized System (GHS)

Pictogram

Signal Word

WARNING

Hazard Statement

H313	May be harmful in contact with skin.
H335	May cause respiratory irritation.
H402	Harmful to aquatic life.
H412	Harmful to aquatic life with long lasting effects.

Precautionary Statements (Prevention)

P271	Use only outdoors or in a well-ventilated area.
P273	Avoid release to the environment.
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.

Precautionary Statements (Response)

P312	Call a POISON CENTER or doctor/physician if you feel unwell.
P304 + P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.

Precautionary Statements (Storage)

P403 + P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.

Precautionary Statements (Disposal)

P501	Dispose of contents/container to hazardous or special waste collection point.

Labeling of special preparations (GHS)

The following percentage of the mixture consists of components(s) with unknown hazards regarding the acute toxicity: 0...3 %, dermal.

The following percentage of the mixture consists of components(s) with unknown hazards regarding the acute toxicity: 0...3 %, oral.

Other hazards

According to UN GHS criteria

See section 12 – Results of PBT and vPvB assessment.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substances

Not applicable.

Mixtures

Chemical nature

Preparation based on: Reaction mass of hexadecyl methacrylate and octadecyl methacrylate (Content (W/W) – 25 %), Reaction mass of dodecyl methacrylate and hexadecyl methacrylate and tetradecyl methacrylate (Content (W/W) – 75 %)

Hazardous ingredients (GHS)

According to UN GHS criteria

- *Dodecan-1-ol*

Content (W/W)	≥ 0 % ≤ 1,875 %	Eye Dam./Irrit. – 2A Aquatic Acute – 1 Aquatic Chronic – 2 M-factor acute – 1
CAS #	112-53-8	
EC #	203-982-0	H319, H411, H400

- *Tetradecanol*

Content (W/W)	≥ 0 % ≤ 0,75 %	Eye Dam./Irrit. – 2A Aquatic Chronic – 1 M-factor chronic – 1
CAS #	112-72-1	
EC #	204-000-3	H319, H410

- *Dodecyl methacrylate*

Content (W/W)	≥ 51 % ≤ 56,375 %	Acute Tox. 5 (dermal) H313
CAS #	142-90-5	Specific concentration limit: STOT SE 3, irr. to respiratory syst. ≥ 10 %
EC #	205-570-6	
INDEX #	607-247-00-9	

- *Hexadecyl methacrylate*

Content (W/W)	≥ 6,25 % ≤ 9 %	Acute Tox. 5 (dermal) H313
CAS #	2495-27-4	
EC #	219-672-3	
INDEX #	607-134-00-4	

- *Octadecyl methacrylate*

Content (W/W)	≥ 16,25 % ≤ 18,25 %	Acute Tox. 5 (dermal) H313
CAS #	32360-05-7	
EC #	251-013-5	
INDEX #	607-134-00-4	

- *Tetradecyl methacrylate*

Content (W/W)	≥ 18,025 % ≤ 23,75 %	Acute Tox. 5 (dermal) H313
CAS #	2549-53-3	
EC #	219-835-9	
INDEX #	607-134-00-4	

For the classifications not written out in full in this section the full text can be found in section 16.

4. FIRST-AID MEASURES

Description of first aid measures

Immediately remove contaminated clothing.
If the patient is likely to become unconscious, place and transport in stable sideways position (recovery position). First aid personnel should pay attention to their own safety.

If inhaled
Keep patient calm, remove to fresh air, seek medical attention.

On skin contact
Immediately wash thoroughly with soap and water, seek medical attention.

On ingestion
Immediately rinse mouth and then drink 200-300 ml of water, seek medical attention.

Most important symptoms and effects, both acute and delayed

Symptoms
Additional information on symptoms and effects may be included in the GHS labeling phrases available in Section 2 and in the Toxicological assessments available in Section 11.

Indication of any immediate medical attention and special treatment needed

Treatment
Treat according to symptoms (decontamination, vital functions), no known specific antidote.

5. FIRE-FIGHTING MEASURES

Extinguishing media

Suitable extinguishing media
Carbon dioxide, dry powder, water spray, foam.

Unsuitable extinguishing media for safety reasons
Water jet.

Special hazards arising from the substance or mixture

Self-polymerization if overheated in a container. Cool endangered containers with water-spray.

Advice for fire-fighters

Special protective equipment
Wear a self-contained breathing apparatus.

Further information
Remove product from areas of fire, or otherwise cool containers with water in order to avoid pressure build up due to heat. Contaminated extinguishing water must be disposed of in accordance with official regulations.

In case of a fire in the vicinity a restabilization system should be used if the temperature in the storage container reaches 45 °C. Evacuate area of all unnecessary personnel. In case of a fire in the vicinity evacuate all personnel in a greater area if the temperature in the storage container reaches 60 °C.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Avoid contact with the skin, eyes and clothing. Ensure adequate ventilation. Use personal protective clothing. Breathing protection required.

Environmental precautions

Do not discharge into drains / surface waters / groundwater. Contain contaminated water / firefighting water.

Methods and material for containment and cleaning up

For small amounts
Pick up with suitable absorbent material. Correctly dispose of recovered product immediately.

For large amounts
Pump off product. Dispose of absorbed material in accordance with regulations.

Clean contaminated floors and objects
thoroughly with water and detergents, observing environmental regulations.

7. HANDLING AND STORAGE

Precautions for safe handling

Handle in accordance with good industrial hygiene and safety practice. The substance/ product may be handled only by appropriately trained personnel.

Ensure thorough ventilation of stores and work areas. Encapsulation or exhaust ventilation required. When filling, transferring, or emptying of containers, adequate local exhaust ventilation is necessary. Vent waste air to atmosphere only through suitable separators. Check the condition of seals and connector screw threads. Do not open warm or swollen product containers. Remove persons to safety and alert fire brigade.

Because of the possible separation from the stabilizer the product should never be partially melted and taken. Ensure that there is no crystallized product in the container before use.

The temperatures which must be avoided are to be considered. Protect against heat. Protect from direct sunlight. Protect contents from the effects of light. Ensure adequate inhibitor and dissolved oxygen level.

Protection against fire and explosion:

Substance/product can form explosive mixture with air. It is recommended that all conductive parts of the machinery are grounded.

If exposed to fire, keep containers cool by spraying with water. Emergency cooling must be provided for the eventuality of a fire in the vicinity. Sealed containers should be protected against heat as this results in pressure build-up. Avoid influence of heat.

Ground all transfer equipment properly to prevent electrostatic discharge. Containers should be grounded against electrostatic charge. Avoid all sources of ignition: heat, sparks, open flame.

Vapours may form ignitable mixture with air. Ignitable mixtures can be formed in the emptied container. Heated containers should be cooled to prevent polymerization.

Conditions for safe storage, including any incompatibilities

Further information on storage conditions
Prior to storage ensure that the transfer equipment used and the intended storage containers do not contain other substances/products. Before transfer to stock the identity of the product must be proved to be without doubt. The entrance to storage rooms is to be granted only to appropriately trained personnel.

The stabilizer is only effective in the presence of oxygen. Maintain contact with atmosphere containing 5...21 % oxygen. Never use tanks with inert-gas installation for storage.

Risk of polymerization. Protect against heat. Protect from direct sunlight. Protect contents from the effects of light. Avoid UV-light and other radiation with high energy. Protect against contamination.

All storage containers should be equipped with high temperature alert devices.

Even if the product is stored and handled as prescribed/indicated it should be used up within the indicated duration of storage.

Do not store product below the indicated minimum temperature, because crystallization should be absolutely avoided.

Storage stability
Storage temperature: -6...35 °C
Storage duration: 12 Months
The stated storage temperature should be noted.
Avoid prolonged storage.
This product should be processed as soon as possible.
Ensure adequate inhibitor and dissolved oxygen level.
Do not store with less than 10 % headspace above liquid.
Storage stability is based upon ambient temperatures and conditions described.
It is recommended to keep a safe distance of +2 degrees above the crystallization range.
The product is stabilized, the shelf life should be noted.

8. EXPOSURE CONTROLS. PERSONAL PROTECTION

Control parameters

Components with occupational exposure limits

112-53-8	Dodecan-1-ol
2157-01-9	Tetradecanol

Tetradecanol

Personal protective equipment

Respiratory protection
Suitable respiratory protection for lower concentrations or short-term effect: Gas filter for gases/vapours of organic compounds (boiling point > 65 °C, e.g. EN 14387 Type A).

Hand protection
Suitable materials also with prolonged, direct contact (Recommended: Protective index 6, corresponding > 480 minutes of permeation time according to EN 374): nitrile rubber (NBR) – 0.4 mm coating thickness,

Supplementary note
The specifications are based on tests, literature data and information of glove manufacturers or are derived from similar substances by analogy. Due to many conditions (e.g. temperature) it must be considered, that the practical usage of a chemical-protective glove in practice may be much shorter than the permeation time determined through testing.

Manufacturer's directions for use should be observed because of great diversity of types.

Eye protection
Safety glasses with side-shields (frame goggles) (e.g. EN 166).

Body protection
Body protection must be chosen depending on activity and possible exposure, e.g. apron, protecting boots, chemical-protection suit (according to EN 14605 in case of splashes or EN ISO 13982 in case of dust).

General safety and hygiene measures

Avoid inhalation of vapour. Avoid contact with the skin, eyes and clothing.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Form	Liquid
Colour	Colourless, clear
Odour	Product specific
Odour threshold	Not determined
pH value	of very low solubility, not applicable
Onset of melting	< 0 °C
Onset of boiling	> 250 °C The substance / product decomposes therefore not determined
Flash point	110 °C The statements are based on the properties of the individual components
Evaporation rate	Value can be approximated from Henry's Law Constant or vapor pressure
Lower explosion limit	For liquids not relevant for classification and labelling
Upper explosion limit	For liquids not relevant for classification and labelling
Ignition temperature	257 °C The product has not been tested. The statement has been derived from the properties of the individual components
Vapour pressure	6,6 hPa (20 °C) The product has not been tested. The statement has been derived from the properties of the individual components
Density	0,87 g/cm^3 (20 °C) The statements are based on the properties of the individual components
Solubility in water	Of very low solubility (20 °C)
Partitioning coefficient n-octanol/water (log Kow)	Not applicable for mixtures
Thermal decomposition	No decomposition if stored and handled as prescribed/indicated
Viscosity, kinematic	6,55 mm^2/s (23 °C)
Explosion hazard	Based on the chemical structure there is no indicating of explosive properties
Fire promoting properties	Based on its structural properties the product is not classified as oxidizing

Other information

pKA	The substance does not dissociate
Hygroscopy	Non-hygroscopic
Surface tension	Based on chemical structure, surface activity is not to be expected
Grain size distribution	The substance / product is marketed or used in a non solid or granular form

10. STABILITY AND REACTIVITY

Reactivity

No hazardous reactions if stored and handled as prescribed/indicated.

Corrosion to metals
No corrosive effect on metal.

Formation of flammable gases
Forms no flammable gases in the presence of water.

Chemical stability

The product is stable if stored and handled as prescribed/indicated.

Possibility of hazardous reactions

Explosion and fire hazard exists under confined conditions. Ignitable air mixtures can form when the product is heated above the flash point and/or when sprayed or atomized. Formation of explosive gas/air mixtures.

Risk of spontaneous polymerization when heated or in the presence of UV radiation. Polymerization coupled with heat formation.

Risk of spontaneous polymerization by oxygen depletion of the liquid phase.

Radical formation can cause exothermic polymerization. Reacts with peroxides and other radical components. Risk of spontaneous polymerization in the presence of starters for radical chain reactions (e.g. peroxides).

The product is stabilized against spontaneous polymerization prior to despatch. The product is stable if stored and handled as prescribed/indicated

Conditions to avoid

Avoid heat. Avoid UV-light and other radiation with high energy. Avoid direct sunlight. Avoid prolonged storage. Avoid inhibitor loss.

Incompatible materials

Substances to avoid
Radical formers, free radical initiators, peroxides.

Hazardous decomposition products

Hazardous decomposition products
No hazardous decomposition products if stored and handled as prescribed/indicated.

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Assessment of acute toxicity
Virtually nontoxic after a single ingestion. Of low toxicity after short-term skin contact. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

The following percentage of the mixture consists of components(s) with unknown hazards regarding the acute toxicity: 0...3 %

The following percentage of the mixture consists of components(s) with unknown hazards regarding the acute toxicity: 0...3 %.

Irritation

Assessment of irritating effects
Not irritating to eyes and skin.

Experimental/calculated data

Skin corrosion/irritation rabbit.
Non-irritant (other).
The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Serious eye damage/irritation rabbit
Non-irritant (OECD Guideline 405).
The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Respiratory/Skin sensitization

Assessment of sensitization
Skin sensitizing effects were not observed in animal studies. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Germ cell mutagenicity

Assessment of mutagenicity
The substance was not mutagenic in bacteria.
The substance was not mutagenic in mammalian cell culture. The substance was not mutagenic in a test with mammals. The product has not been tested.
The statement has been derived from substances/products of a similar structure or composition.

Carcinogenicity

Assessment of carcinogenicity
No data available concerning carcinogenic effects.
The chemical structure does not suggest a specific alert for such an effect.

Reproductive toxicity

Assessment of reproduction toxicity
The results of animal studies gave no indication of a fertility impairing effect. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Developmental toxicity

Assessment of teratogenicity
No indications of a developmental toxic/teratogenic effect were seen in animal studies. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Specific target organ toxicity (single exposure)

Assessment of STOT single
Based on the available information there is no specific target organ toxicity to be expected after a single exposure. The European Union (EU) has classified the substance as «causing irritation of the respiratory tract»

Repeated dose toxicity and Specific target organ toxicity (repeated exposure)

Assessment of repeated dose toxicity
The information available on the product provides no indication of toxicity on target organs after repeated exposure. The product has not been tested.
The statement has been derived from substances/products of a similar structure or composition.

Aspiration hazard

No aspiration hazard expected.

12. ECOLOGICAL INFORMATION

Toxicity

Assessment of aquatic toxicity
There is a high probability that the product is not acutely harmful to aquatic organisms. Based on longterm (chronic) toxicity study data, the product is very likely not harmful to aquatic organisms.
The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Assessment of terrestrial toxicity
Study scientifically not justified.

Persistence and degradability

Assessment biodegradation and elimination (H_2O)
Readily biodegradable (according to OECD criteria).
The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Assessment of stability in water
Study scientifically not justified.

Bioaccumulative potential

Assessment bioaccumulation potential
Significant accumulation in organisms is not to be expected.

The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Mobility in soil

Assessment transport between environmental compartments
Adsorption in soil: Study scientifically not justified.

Results of PBT and vPvB assessment

According to Annex XIII of Regulation (EC) No.1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH): Not fulfilling PBT (persistent/bioaccumulative/toxic) criteria.

According to Annex XIII of Regulation (EC) No.1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH): Not fulfilling vPvB (very persistent/very bioaccummulative) criteria.

Other adverse effects

The substance is not listed in Regulation (EC) 1005/2009 on substances that deplete the ozone layer.

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Must be sent to a suitable incineration plant, observing local regulations.

Contaminated packaging

Contaminated packaging should be emptied as far as possible and disposed of in the same manner as the substance/product.

14. TRANSPORT INFORMATION

Land transport

ADR

Not classified as a dangerous good under transport regulations

UN number ..... Not applicable
UN proper shipping name..... Not applicable
Transport hazard class(es) ..... Not applicable
Packing group..... Not applicable
Environmental hazards..... Not applicable
Special precautions for user .....None known

RID

Not classified as a dangerous good under transport regulations

UN number ..... Not applicable
UN proper shipping name..... Not applicable
Transport hazard class(es) ..... Not applicable
Packing group..... Not applicable
Environmental hazards..... Not applicable
Special precautions for user .....None known

Inland waterway transport

ADN

Not classified as a dangerous good under transport regulations

UN number ..... Not applicable
UN proper shipping name..... Not applicable
Transport hazard class(es) ..... Not applicable
Packing group..... Not applicable
Environmental hazards..... Not applicable
Special precautions for user .....None known

Transport in inland waterway vessel

Not evaluated.

Sea transport

IMDG

Not classified as a dangerous good under transport regulations.

UN number ..... Not applicable
UN proper shipping name..... Not applicable
Transport hazard class(es) ..... Not applicable
Packing group..... Not applicable
Environmental hazards..... Not applicable
Special precautions for user .....None known

Air transport

IATA/ICAO

Not classified as a dangerous good under transport regulations.

UN number ..... Not applicable
UN proper shipping name..... Not applicable
Transport hazardclass(es) ..... Not applicable
Packing group..... Not applicable
Environmental hazards..... Not applicable
Special precautions for user .....None known

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

Regulation..... Not evaluated
Shipment approved ..... Not evaluated
Pollution name..... Not evaluated
Pollution category..... Not evaluated
Ship Type..... Not evaluated

15. REGULATORY INFORMATION

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

If other regulatory information applies that is not already provided elsewhere in this safety data sheet, then it is described in this subsection

16. OTHER INFORMATION

Full text of classifications,
hazard symbols and hazard statements, if mentioned in section 2 or 3

Acute Tox.	Acute toxicity.
STOT SE	Specific target organ toxicity – single exposure.
Aquatic Acute	Hazardous to the aquatic environment – acute.
Aquatic Chronic	Hazardous to the aquatic environment – chronic.
Eye Dam./Irrit.	Serious eye damage/eye irritation.
H319	Causes serious eye irritation.
H411	Toxic to aquatic life with long lasting effects.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H313	May be harmful in contact with skin.

The data contained in this safety data sheet are based on our current knowledge and experience and describe the product only with regard to safety requirements. This safety data sheet is neither a Certificate of Analysis (CoA) nor technical data sheet and shall not be mistaken for a specification agreement. Identified uses in this safety data sheet do neither represent an agreement on the corresponding contractual quality of the substance/mixture nor a contractually designated use. It is the responsibility of the recipient of the product to ensure any proprietary rights and existing laws and legislation are observed.