## **MATERIAL SAFETY DATA SHEET**



# **METHYL ACETATE**

### 1 IDENTIFICATION OF THE PRODUCT AND THE COMPANY

### 1.1 IDENTIFICATION OF THE SUBSTANCE / PREPARATION:

Trade name: MAM

### 1.2 IDENTIFICATION OF THE COMPANY:

RAR Resin & Chemical Industries JLT

11th Floor, Jumeirah Lake Towers, P.O. Box: 47381, Dubai UAE

### 1.3 Relevant identified uses of the substance or mixture and uses advised against

Use of the Substance/ mixture : Raw material Industrial use

### **2 HAZARDS INDENTIFICATION**

### 2.1. Classification of the substance or mixture

Classification as per Directive (67/548/EEC, 1999 / 45 / EC)

Highly flammable R11: Highly flammable

toxic R39/23/24/25: Toxic: danger of very serious irreversible effects through inhalation, in contact

with skin and if swallowed.

R67: Vapours may cause drowsiness and dizziness.

#### 2.2 Label elements

Labelling according to EC Directives (1999/ 45/EC)

**Hazards Pictograms** 





Toxic





Highly flammable

**R-phrase** : R11 highly flammable

R39/23/25 Toxic: danger of very serious irreversible.

#### DISCL AIMER

effects through inhalation, in contact

with skin and if swallowed.

R67 : Vapours may cause drowsiness and

dizzines

S-phrase(s) S16 : Keep away from sources of ignition- No

smoking.

S38 : In case of insufficient ventilation, wear

suitable respiratory equipment.

S60 : This material and its container must

be disposed of as hazardous waste.

## Hazardous components which must be listed on the label:

79-20-9 methyl acetate 67-56-1 methanol

### 2.3 Other hazards

This mixture contains no substance considered to be persistent, bioaccumulating nor toxic (PBT) this mixture contains no substance considered to be persistent nor very bioaccumulating (vPvB). Toxic: danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed. Repeated exposure may cause skin drynessor cracking.

### **3 COMPOSITION / INFORMATION ON INGREDIENTS**

#### 3.2 Mixtures

Chemical nature : Solvent mixture Hazardous components

Chemical name	CAS-No EC-No. Registration number	Classification (67/548/EEC)	Classification (REGULATION (EC) No 1272/2008)	Concentration [%]
methyl acetate	79-20-9 201-185-2	F; R11 Xi; R36 R66 R67	Flam. Liq. 2; H225 Skin Irrit. 2; H319 STOT SE 3; H336	<= 81
methanol	67-56-1 200-659-6	F; R11 T; R23/24/25 T; R39/23/24/25	Flam. Liq 2; H225 Acute Tox. 3; H331 Acute Tox. 3; H331 Acute Tox. 3; H301 STOT SE 1; H370	<= 19
acetaldehyde	75-07-0 200-836-8	F+; R12 Carc. Cat3; R40 Xi; R36/37	Flam. Liq. 1; H224 Carc.2; H351 Eye Irrit.2; H319 STOT SE 3; H335	< 0.1

#### DISCLAIMER

For the full txt of the R- phrase mentioned is this Section, see Section 16 For the full txt of the H- statements mentioned is this Section, see Section 16

### 4. FIRST AID MEASURES

#### 4.1 Description of first aid measures

General advice : Move the victim to fresh air.

: Get medical attention if symptoms occur

: Show this safety data sheet to the doctor in attendance.

If inhaled : Remove person to fresh air. If signs/ symptoms continue, get

medical attention.

Incase of skin contact : Wash off immediately with soap and plenty of water.

: Remove contaminated clothing. if irritation develops, get medical

attention

: Wash contaminated clothing before reuse.

In case of eye contact : Hold eyelids aprt and flush eyes with plenty of water for at least 15

minutes. Get medical attention.

If swallowed : If accidentally swallowed obtain immediate medical attention

: Do NOT induce vomiting.

: Never give anything by mouth to an unconscious person.

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

Ingestion may provoke the following symptoms:

- Nausea
- Blindness

Inhalation may provoke the following symptoms:

- Dizziness
- Blindness

SKin contact may provoke the following symptoms:

- Blindness
- irritation

### 4.3 indication of any immediate medical attention and special treatment needed

No information available

For specialist advice physicians should contact the poisons information Service

#### 5. FIRE FIGHTING MEASURE

### 5.1 Extinguishing media

Suitable extiguishing media : Use water spray, alcohol-resistant foam, dry chemical

or carbon dioxide

**Unsuitable extinguishing media** : No information available.

#### DISCLAIMER

### 5.2 Special hazrds arising from the substance or mixture

Combustion products

Carbon monoxide, carbon dioxide and unburned hydrocarbons (smoke)

### 5.3 Advice for firefighters

Wear suitable protective equipment

In the event of fire, wear self- contained breathing apparatus

Wear a positive- pressure supplied- air respirator with full facepiece.

Use water spray to cool unopened containers

Prevent fire extinguishing water from contaminating surface water or the ground water system.

Do not enter confined spaces unless adequately ventilated.

#### 6. ACCIDENTAL RELEASE MEASURES

### 6.1Personal precaustions, protective equipmet and emergency procedures:

Use personal protective equipment

### 6.2 Environmental precautions:

The product should not be allowed to enter drains, water courses or the soil

### 6.3 Methods and materials for containment and cleaning up

Contain spillage, soak up with non- combustible absorbent materials, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see section 13) Pick up and transfer to properly labelled containers.

Large spills should be collected mechanically (remove by pumping) for disposal.

Keep in suitable, closed containers for disposal.

Dispose of as hazardous waste in compliance with local and national regulations

Clean contaminated floors and objects thoroughly while observing environmental regulations.

#### 6.4 Reference to other sections

For personal protection see section 8.

#### 7. HANDLING AND STORAGE

## 7.1 Precautions for safe handling

Wear personal protective equipment

For personal protective see section 8

Avoid inhalation, ingestion and contact with skin and eyes

Do not use in areas without adequate ventilation

Smoking, eating and drinking should be prohibited in the application area.

### 7.2 Conditions for safe storage, including any incompatibilities

Store in original container

Keep in properly labelled containers

Keep away from sources of ignition- No smoking

Keep container tightly closed in a dry and well- ventilated place

Storage of flammable liquids

### 7.3 Specific end uses

Consult the technical guidelines for the use of this substance/ mixture

#### DISCLAIMER

### 8. EXPOSURE CONTROLS/ PERSONAL PROTECTION

8.1 Control parameters

Components	CAS-No	Value	Control parameters	Update	Basis
Methyl acetate	79-20-9	STEL	250ppm 770 mg/m3	2007	EH40 (UK)
		TWA	200 ppm 616mg/m3	2007	EH40 (UK)
methanol	67-45-1	STEL	250ppm 333mg/m3	2007	EH40 (UK)
		TWA	200ppm 266 mg/m3	2007	EH40 (UK)
acetaldehyde	75-07-0	STEL	50ppm 92mg/m3	2007	EH40 (UK)
		TWA	20ppm 37mg/m3	2007	EH40 (UK)
		STEL	50ppm 91mg/m3	2010	TRGS 900 (DE)
		TWA	50ppm 91 mg/m3	2010	TRGS 900 (DE)

### **DNEL**

methyl acetate : End use: Workers

Exposure routes: Skin contact Potential health effects: Long term

88mg/kg

: End Use: Workers

Exposure routes: inhalation
Potential health effects: Long term

Value: 610 mg/m3

: End Use: Workers

Exposure routes: Inhalation

Potential health effects: Long term, Local effects

Value: 305 mg/m3

: End Use: Consumers

Exposure routes: skin contact Potential health effects: Long term

Value: 44 mg/m3

## DISCLAIMER

### : End Use: Consumers

:End Use: Consumers
Exposure routes: inhalation
Potential health effects: Long term

Value: 131 mg/m3

: End Use: Consumers Exposure routes: ingestion Potential health effects: Long term

Value: 44 mg/m3

: End Use: Consumers Exposure routes: inhalation

Potential health effects: Long term, Local effects

Value: 152 mg/m3

#### methanol

: End Use: Workers

Exposure routes: skin contact Potential health effects: Long term

Value: 40 mg/m3

: End Use: Workers

Exposure routes: Inhalation
Potential health effects: Long term

Value: 260 mg/m3

: End Use: Workers

Exposure routes: Skin contact

Potential health effects: Acute effects

Value: 40 mg/m3

: End use: Workers

Exposure routes: inhalation

Potential health effects: Acute effects

Value: 260mg/kg

: End Use: Workers

Exposure routes: inhalation

Potential health effects: Acute effects, Local effects

Value: 260mg/m3

: End Use: Workers

Exposure routes: Inhalation

Potential health effects: Long term, Local effects

value: 260 mg/m3

: End Use: Consumers

Exposure routes: skin contact Potential health effects: Long term

8 mg/kg

### DISCLAIMER

: End Use: Consumers Exposure routes: inhalation Potential health effects: Long term

Value: 50mg/m3

: End Use: Consumers

Exposure routes: Skin contact
Potential health effects: Acute effects

8mg/kg

: End Use: Consumers Exposure routes: inhalation

Potential health effects: Acute effects, local effects

Value: 50 mg/m3

: End Use: Consumers Exposure routes: inhalation

Potential health effects: Long term, Local effects

Value: 50 mg/m3

: End Use: Consumers Exposure routes: ingestion

Potential health effects: Acute effects

8 mg/kg

: End Use: Consumers Exposure routes: ingestion Potential health effects: long term

8 mg/kg

acetaldehyde : No data available

**PNEC** 

methyl acetate : Fresh water

Value: 0.12 mg/l

Marine water Value; 0.012 mg/l

Soil

Value: 0.0416 mg/l

methanol : No data available acetaldehyde : No data available

### 8.2 Exposure controls

Engineering measures

Ensure adequate ventilation, especially in confined areas. Use with local exhaust ventilation.

#### DISCI AIMER

### Personal protective equipment

**Respiratory:** use respirator when performing operations involving potential exposure to vapour of the product. Respirator with a vapour filter (EN 14)

**Hand protection:** Protective gloves complying with EN 374. Gloves should be discarded are placed if there is any indication of degradation or chemical breakthrough.

Eye protection: Safety glasses with side-shield conforming to EN 166

### Skin and body protection

- Wear suitable protective clothing.
- Skin should be washed after contact
- Remove and wash contaminated clothing before re-use

#### Hygiene measures

- -Wash hands before breaks and immediately after handling the product.
- When using do not eat, drink or smoke.

Protective measures: Ensure that eye flushing systems and safety showers are located close to the working place.

#### General advice:

The product should not be allowed to enter drains, water courses or the soil.

#### 9. PHYSICAL AND CHEMICAL

### 9.1 Information on basic physical and chemical properties

Apperance : liquid
Colour : colourless
Odour : ester-like
Odour Threshold : not determined
pH : not applicable
Melting point/freezing point : No data available

Boiling point : 54 deg C

Flash point : - 14 deg C, (BS2000 part 170)

Evaporation rate: not determinedFlammability (solid, gas): Highly determinedLower explosion limit: not determinedUpper explosion limit: not determined

Vapour pressure : 350 hPa, at 20 deg C

**Relatively density** : 0.90 **Water solubility** : soluble

in all proportions : not determined

Partition coefficient: n-

octano/ water

**Ignition temperature** : 460 deg C

Thermal decomposition : No data determined Viscosity, dynamic : not determined Explosive properties : not determined Oxidizing properties : not determined

#### DISCLAIMER

### 9.2 Other information

No information available.

### 10. STABILITY REACTIVITY

**10.1 Reactivity** : No dangerous reaction known under conditions of normal use.

**10.2 Chemical stability** : Stable under recommended storage conditions.

**10.3 Possibility of hazardous reactions** : Keep away from oxidizing agents, and acidic or alkaline products.

**10.4 Conditions to avoid** : Heat, flames and sparks

**10.5 Incompatible materials** : Acids

Strong basesOxidizing agents

### 10.6 Hazardous decomposition products

- Risk of ignition

- In case of fire hazardous decomposition products may be produced such as: Carbon Monoxide

## 11. TOXICOLOGICAL INFORMATION

**Information on toxicological effects:** No data is available on the product itself. Information given is based on data on the components and the toxicology of similar products.

### **Components:**

### methyl acetate:

**Acute oral toxicity:** LD50: 6,482 mg/kg, rat (male), OECD test Guideline 401, No adverse effect has been observed in acute toxicity tests.

**Acute inhalation toxicity:** LC50: > 49.2 mg/l, 4 h, No adverse effects has been observed in acute toxicity tests.

**Acute dermal toxicity:** LD50: > 2,000 mg/kg, rat ( male and female), OECD test Guideline 402, No adverse effect has been observed in

acute toxicity tests.

**Skin corrion/ irritation:** Rabbit, OECD Test Guideline 404, No skin irritation

Serious eye damage/ eye: Rabbit, Irritationg eyes irritation

**Respiratory or skin** : Does not cause skin sensitization.

**sensitization** Does not cause respiratory sensitization.

Genotoxicity in vitro : Ames test, with or without metabolic activation, Mutageni-

city (Salmonella typhimurium-reverse mutation assay), In

vitro tests did not show mutagenic effects

**Genotoxicity in vitro** : In vivo micronucleus test, rat, Directive 67/548/EEC, Annex,

B. 12., In vivo tests did not show mutagenic effects

#### DISCLAIMER

Carcinogenicity: No data availableReproductive toxicity: No data availableTeratogenicity: No data available

STOT- single exposure : Assessment: The substance or mixture is not classified as specific target organ toxicant,

single exposure

STOT- repeated exposure : Assessment: The substance or mixture is not

classified as specific target organ toxicant, repeated

exposure.

methanol:

**Acute oral toxicity** : LD50: > 1,187 mg/kg, rat, toxic by ingestion **Acute inhalation toxicity** : LC50: 130.7 mg/l, 4 h, rat, Toxic by inhalation

LC50; 128.2 mg/l, 4 h, rat, Toxic by inhalation LC50; > 115.9 mg/l, 4 h, rat, Toxic by inhalation LC50: 96.2 mg/l, 6 h, rat, Toxic by inhalation LC50; 87.5 mg/l, 6 h, rat, Toxic by inhalation

Acute dermal toxicity: No data availableSkin corrosion/ irritation: Rabbit, No skin irritationSerious eye damage/ eye irritation: Rabbit, No eye irritation

Respiratory or skin : guinea pig, OECD Test Guideline 406, Does not causeskin

**sensitization** sensitization

**Genotoxicity in vitro** : OECD test Guideline 453, Not classifiable as a human

carcinogen

Genotoxicity in vivo : In vivo test did not show mutagenic effects

Carcinogenicity : mouse, OECD Test Guideline 453, Not classified as a human

carcinogen rat, OECD Test Guideline 453, Not classifiable

as human carcinogen

**Reproductive toxicity**: rat, inhalation, No toxicity to reproduction

: mouse, inhalation, No toxicity tor reproduction: rat, Inhalation, No toxicity to reproduction: mouse, Inhalation, No toxicity to reproduction

**Teratogenicity** : No data available

STOT- single exposure : Exposure routes: Ingestion

: Target Organs: Eyes

: Assessment: Causes damage to organs.

STOT- repeated : Exposure routes: Inhalation

: Target organs: Liver, Central nervous system, Heart

: Assessment: Causes damage to organs through prolonged or

repeated exposure.

#### DISCI AIMER

Acetaldehyde:

Acute oral toxicty: No data availableAcute inahalation toxicity: No data availableAcute dermal toxicity: No data availableSkin corrosion/irritation: No data availableSerious eye damage/ eye: No data available

irritation

Respiratory or skin : No data available

sensitization

Genotoxicity in Vitro : No data available
Genotoxicity in vivo : No data available
Carcinogenicity : No data available
Reproductive toxicity : No data available
STOT- single exposure : No data available
STOT- repeated exposure : No data available

#### 12. ECOLOGICAL INFORMATION

### 12.1 Toxicity

**Product:** 

**Ecotoxicology Assessment** 

Acute aquatic toxicity : This product has no known eco-toxicological effects.

Methanol:

**Toxicity to fish** : LC50; 15,400 mg/l, 96 h, Fish

Toxicity to daphnia and other

aquatic invertebrates

: No data available

Toxicity to algae : EC50: 22,000 mg/l, 96 h, OECD Test Guideline 201

Toxicity to bacteria

**Toxicity to fish (Chronic toxicity)** 

: No data available

Toxicity to daphnia and other

aquatic invertebrates (Chronic toxicity)

: No data available

12.2 Ecotoxicology Assesstment

**Acute aquatic toxicity** : This product has no known eco-toxicological effects.

Acetaldehyde:

Toxicity to fish : No data available

Toxicity to daphnia and other

aquatic invertebrates

: No data available

**Toxicity to algae** : No data available

**Toxicity to fish (Chronic toxicity)** 

Biodegradability

: No data available

Toxicity to daphnia and other

aquatic invertebrates (Chronic toxicity)

: No data available

#### DISCLAIMER

### 12.3 Bioaccumulative potential

**Product:** 

**Bioaccumulation** : No data available

Components: methyl acetate:

Bioaccumulation : Bioconcentration factor (BCF): 0.18, Bioaccumulation is

unlikely

Methanol

Bioaccumulation : Bioconcentration factor (BCF); 0.2, Bioaccumulation is

unlikely

acetaldehyde

**Bioaccumulation** : No data available

### 12.4 Mobility in Soil

**Product:** 

Distribution among

environmental compartments

: No data available

Components:

methanol:

Distribution among

environmental compartments

: Medium: Soil, No data available, not expected to adsorb on soil

acetaldehyde:

**Distribution among** 

environmental compartments

: Medium: Soil, No data available

### 12.5 Results of PBT and vPvB assessment

#### **Product:**

This mixture contains no substance considered to be persistent, bioaccumulating nor toxic (PBT). This mixture contains no substance considered to be very persistent nor very bioaccumulating (vPvB).

### Components:

Methyl acetate

**Assessments** : This substance is not considered to be persistent, bioaccumulating

nor toxic (PBT). this substance is not considered to be very persistent

nor very bioaccumulating (vPvB)

methanol:

Assessment : This substance is not considered to be persistent, bioaccumulating

nor toxic (PBT). this substance is not considered to be very persistent

nor very bioaccumulating (vPvB)

#### DISCI AIMER

### acetaldehyde:

assesment : No data available

#### 12.6 Other adverse effects

#### **Product:**

This product has no known eco-toxicological effects.

#### 13 DISPOSAL CONSIDERATION

### 13.1 Waste treatement methods

In accordance with local and national regulations. The product should not be allowed to enter drains, watercourses or the soil.

Contaminated packaging : In accordance with local and national regulations.

### **14 TRANSPORT INFORMATION**

#### 14.1 UN number

ADR : 1993 RID : 1993 IMDG : 1993

### 14.2 Proper shipping name

ADR : FLAMMABLE LIQUID, N.O.S. (contains METHANOL, METHYL ACETATE)
RID : FLAMMABLE LIQUID, N.O.S (contains METHANOL, METHYL ACETATE)
IMDG : FLAMMABLE LIQUID, N.O.S (contains METHANOL, METHYL ACETATE)

### 14.3 Transport hazard class

ADR : 3 RID : 3 IMDG : 3

### 14.4 Packing group

ADR

Packaging group : II
Classification Code : F1
Hazard identification No : 33
Labels : 3
Tunnel restriction No : (D/E)

**RID** 

Packaging group : II
Classification Code : F1
Hazard identification No : 33
Labels : 3

**IMDG** 

packaging group : II Labels : 3

#### DISCLAIMER

#### 14.5 Environmental hazards

ADF

Environmentally hazardous : no

RID

Environmentally hazardous : no

**IMDG** 

Marine pollutant : no

### 14.6 Special precaution for user

Dangerous goods

### 14.7 Transport in bulk according to Annex II of MARPOL 73-78 and the IBC Code

not applicable

#### 15. REGULATORY INFORMATION

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

Other regulations : The mixture is classified as dangerous in accordance with Directive

1999/45/EC.

: May be harmful in contact with skin (after often repeated exposure) : This mixture contains only ingredients which have been subject to a pre-registration according to Regulation (EC) No. 1907/2006 (REACH)

### 15.2 Chemical safety Assessment

Chemical safety Assessment have been carried out for these substances.

### **16. OTHER INFORMATION**

Full text of R- phrases referred to under sections 2 and 3

R11 : Highly flammable R12 : Extremely flammable

R23/24/25 : Toxic by inhalation, in contactwith skin and if swallowed.

R36 : Irritating to eyes

R35/37 : Irritating to eyes and respiratory system.

R 39/23/24/25 : Toxic; danger of very serious irreversible effects through inhalation, in contact

with skin and if swallowed.

R40 : Limited evidence of a carcinogenic effect

R66 : repeated exposure may cause skin dryness or cracking

R67 : Vapours may cause drowsiness and dizziness

## Full text of H- statements referred to under sections 2 and 3

H224 : Extremely flammable liquid and vapour H225 : Highly flammable liquidand vapour

H 301 : Toxic if swallowed

H311 : Toxic in contact with skin. H319 : Causes serious eye irritation

#### DISCLAIMER

H331 : Toxic if inhaled H335 : may cause respiratory irritation

H336 : May cause drowsiness or dizziness
H351 : Suspected of causing cancer
H370 : Causes damage to organs.

Provide adequate information, instruction and training for operators. this safety sheet complies with the requirements of regulation (EC) No. 1907/ 2006

## This data sheet contains changes from the previous version in section(s);

- 1. Identification of the substance/ mixture and of the company/ undertaking
- 2. hazards identification
- 3. Composition/information on ingredients
- 4. First aid measures
- 5. Fire- fighting measures
- 6. Accidental release measures
- 7. Handling and storage
- 8. Exposure controls/ personal protection
- 9. Physical and chemical properties
- 10. Stability and reactivity
- 11. Toxicological information
- 12. Ecological information
- 13. Disposal considerations
- 14. Transport information
- 15. Regulatory information
- 16. Other information

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage ,transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.