

# safety data sheet

according to Regulation (EC) No. 1907/2006 (REACH), amended by 2015/830/EU

**Plexit® 55 Röhme , thinner 30**

article number: **2498**  
Version: **1.0 en**

date of compilation: 2016-06-14

**CHINA**  
**AMINES**

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

### 1.1 Product identifier

Identification of the substance	<b>Methyl methacrylate</b>
Article number	2498
Registration number (REACH)	01-2119452498-28-xxxx
Index No	607-035-00-6
EC number	201-297-1
CAS number	80-62-6

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

**Identified uses:** laboratory chemical

### 1.3 Details of the supplier of the safety data sheet

China Amines Co., Ltd  
UNIT 1021, BEVERLEY COMMERCIAL CENTRE, 87-105 CHATHAM  
ROAD SOUTH, TSIM SHA TSUI, KOWLOON HONG KONG

**Telephone:** +86 18938922889  
**e-mail:** info@chinaamines.com  
**Website:** www.chinaamines.com

Competent person responsible for the safety data sheet : Department Health, Safety and Environment

**e-mail (competent person)** : info@chinaamines.com

### 1.4 Emergency telephone number

Emergency information service : **+86 18938922889**

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 (CLP)

Classification acc. to GHS			
Section	Hazard class	Hazard class and category	Hazard statement
2.6	flammable liquid	(Flam. Liq. 2)	H225
3.2	skin corrosion/irritation	(Skin Irrit. 2)	H315
3.4S	skin sensitisation	(Skin Sens. 1)	H317
3.8R	specific target organ toxicity - single exposure (respiratory tract irritation)	(STOT SE 3)	H335

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## Remarks

For full text of Hazard- and EU Hazard-statements: see SECTION 16.

## 2.2 Label elements

### Labelling according to Regulation (EC) No 1272/2008 (CLP)

#### Signal word

**Danger**

#### Pictograms



#### Hazard statements

H225	Highly flammable liquid and vapour.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H335	May cause respiratory irritation.

#### Precautionary statements

##### Precautionary statements - prevention

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233	Keep container tightly closed.
P280	Wear protective gloves/eye protection.

##### Precautionary statements - response

P302+P352	IF ON SKIN: Wash with plenty of soap and water.
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#### Labelling of packages where the contents do not exceed 125 ml

Signal word: **Danger**

Symbol(s)



H317	May cause an allergic skin reaction.
P280	Wear protective gloves/eye protection.
P302+P352	IF ON SKIN: Wash with plenty of soap and water.

## 2.3 Other hazards

There is no additional information.

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## SECTION 3: Composition/information on ingredients

### 3.1 Substances

Name of substance	Methyl methacrylate
Index No	607-035-00-6
Registration number (REACH)	01-2119452498-28-xxxx
EC number	201-297-1
CAS number	80-62-6
Molecular formula	C <sub>5</sub> H <sub>8</sub> O <sub>2</sub>
Molar mass	100,1 g/mol

## SECTION 4: First aid measures

### 4.1 Description of first aid measures



#### General notes

Take off contaminated clothing.

#### Following inhalation

Provide fresh air. If breathing is irregular or stopped, immediately seek medical assistance and start first aid actions.

#### Following skin contact

Gently wash with plenty of soap and water. In case of skin irritation, consult a physician.

#### Following eye contact

Rinse cautiously with water for several minutes. In case of eye irritation consult an ophthalmologist.

#### Following ingestion

Rinse mouth. Observe aspiration hazard if vomiting occurs. Call a physician immediately.

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

Irritation, Allergic reactions, Headache, Dizziness, Dyspnoea, Narcosis

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

none

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### SECTION 5: Firefighting measures

#### 5.1 Extinguishing media

##### Suitable extinguishing media

Co-ordinate fire-fighting measures to the fire surroundings  
water spray, foam, dry extinguishing powder, carbon dioxide (CO<sub>2</sub>)

##### Unsuitable extinguishing media

water jet

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

Combustible. Vapours can form explosive mixtures with air.

##### Hazardous combustion products

In case of fire may be liberated: carbon monoxide (CO), carbon dioxide (CO<sub>2</sub>)

#### 5.3 Advice for firefighters

Vapours are heavier than air. Beware of reignition. Fight fire with normal precautions from a reasonable distance. Wear self-contained breathing apparatus.

### SECTION 6: Accidental release measures

#### 6.1 Personal precautions, protective equipment and emergency procedures

##### For non-emergency personnel

Avoid contact with skin and eyes. Do not breathe vapour/spray. Avoidance of ignition sources.

#### 6.2 Environmental precautions

Keep away from drains, surface and ground water. Explosive properties.

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

##### Advices on how to contain a spill

Covering of drains.

##### Advices on how to clean up a spill

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents).

##### Other information relating to spills and releases

Place in appropriate containers for disposal. Ventilate affected area.

##### Reference to other sections

Hazardous combustion products: see section 5. Personal protective equipment: see section 8.  
Incompatible materials: see section 10. Disposal considerations: see section 13.

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## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

Provide adequate ventilation. When not in use, keep containers tightly closed.

#### • Measures to prevent fire as well as aerosol and dust generation



Keep away from sources of ignition - No smoking.

Take precautionary measures against static discharge.

#### Advice on general occupational hygiene

Wash hands before breaks and after work.

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

Keep container tightly closed. Protect from sunlight.

#### Incompatible substances or mixtures

Observe hints for combined storage.

#### Consideration of other advice

##### • Ventilation requirements

Use local and general ventilation.

##### • Specific designs for storage rooms or vessels

Recommended storage temperature: 15 - 25 °C.

### 7.3 Specific end use(s)

No information available.

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

#### National limit values

#### Occupational exposure limit values (Workplace Exposure Limits)

Country	Name of agent	CAS No	Notation	Identifier	TWA [ppm]	TWA [mg/m <sup>3</sup> ]	STEL [ppm]	STEL [mg/m <sup>3</sup> ]	Source
EU	methyl methacrylate (2-methyl-2-propenoic acid methyl ester) (methyl 2-methylprop-2-enoate)	80-62-6		IOELV	50		100		2009/161/EU
GB	methyl methacrylate	80-62-6		WEL	50	208	100	416	EH40/2005

#### Notation

STEL Short-term exposure limit: a limit value above which exposure should not occur and which is related to a 15-minute period unless otherwise specified

TWA Time-weighted average (long-term exposure limit): measured or calculated in relation to a reference period of 8 hours time-weighted average

#### Relevant DNELs/DMELs/PNECs and other threshold levels

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## • human health values

Endpoint	Threshold level	Protection goal, route of exposure	Used in	Exposure time
DNEL	208 mg/m <sup>3</sup>	human, inhalatory	worker (industry)	chronic - systemic effects
DNEL	208 mg/m <sup>3</sup>	human, inhalatory	worker (industry)	chronic - local effects

## • environmental values

Endpoint	Threshold level	Environmental compartment
PNEC	0,94 mg/cm <sup>3</sup>	freshwater
PNEC	0,94 mg/l	freshwater
PNEC	0,94 mg/l	marine water
PNEC	0,94 mg/l	water
PNEC	10 mg/l	sewage treatment plant (STP)
PNEC	5,74 mg/kg	freshwater sediment
PNEC	1,47 mg/kg	soil

## 8.2 Exposure controls

### Individual protection measures (personal protective equipment)



#### Eye/face protection

Use safety goggle with side protection.

#### Skin protection

##### • hand protection

Wear suitable gloves. Chemical protection gloves are suitable, which are tested according to EN 374. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

##### • type of material

Butyl caoutchouc (butyl rubber)

##### • material thickness

0,7mm.

##### • breakthrough times of the glove material

>60 minutes (permeation: level 3)

##### • other protection measures

Take recovery periods for skin regeneration. Preventive skin protection (barrier creams/ointments) is recommended.

Flame-retardant protective clothing.

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## Respiratory protection

Respiratory protection necessary at: Aerosol or mist formation. Type: A (against organic gases and vapours with a boiling point of > 65 °C , colour code: Brown).

## Environmental exposure controls

Keep away from drains, surface and ground water.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

#### Appearance

Physical state	liquid (fluid)
Colour	colourless
Odour	like esters
Odour threshold	No data available

#### Other physical and chemical parameters

pH (value)	This information is not available.
Melting point/freezing point	-48 °C
Initial boiling point and boiling range	100 °C
Flash point	10 °C (DIN 51755)
Evaporation rate	no data available
Flammability (solid, gas)	not relevant (fluid)
<u>Explosive limits</u>	
• lower explosion limit (LEL)	2,1 vol%
• upper explosion limit (UEL)	12,5 vol%
Explosion limits of dust clouds	not relevant
Vapour pressure	37 hPa at 20 °C
Density	0,94 g/cm <sup>3</sup> at 20 °C
Vapour density	3,46 (air = 1)
Bulk density	Not applicable
Relative density	Information on this property is not available.
<u>Solubility(ies)</u>	
Water solubility	15 g/l at 20 °C
<u>Partition coefficient</u>	
n-octanol/water (log KOW)	1,38 (OECD 107)
Soil organic carbon/water (log KOC)	0,94 - 1,858 (ECHA)
Auto-ignition temperature	430 °C - (DIN 51794)
Decomposition temperature	no data available

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### Viscosity

• dynamic viscosity 0,53 mPa s at 20 °C

Explosive properties none

Oxidising properties none

### 9.2 Other information

There is no additional information.

Temperature class (EU, acc. to ATEX)

T2 (Maximum permissible surface temperature on the equipment: 300°C)

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

risk of ignition. Vapours can form explosive mixtures with air.

### 10.2 Chemical stability

The material is stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

### 10.3 Possibility of hazardous reactions

Violent reaction with: Strong oxidiser, Amines, Ammonia (NH<sub>3</sub>), Peroxides, Aldehydes,  
=> Explosive properties

### 10.4 Conditions to avoid

Direct light irradiation. Keep away from heat.

### 10.5 Incompatible materials

Rubber articles

### 10.6 Hazardous decomposition products

Hazardous combustion products: see section 5.

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

#### Acute toxicity

Shall not be classified as acutely toxic.

Exposure route	Endpoint	Value	Species	Source
inhalation: vapour	LC50	29,8 mg/l/4h	rat	ECHA
oral	LD50	7.872 mg/kg	rat	TOXNET
dermal	LD50	>5.000 mg/kg	rabbit	TOXNET

#### Skin corrosion/irritation

Causes skin irritation.

#### Serious eye damage/eye irritation

Shall not be classified as seriously damaging to the eye or eye irritant.



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## Respiratory or skin sensitisation

May cause an allergic skin reaction. May cause sensitisation by skin contact.

## Summary of evaluation of the CMR properties

Shall not be classified as germ cell mutagenic, carcinogenic nor as a reproductive toxicant

### • Specific target organ toxicity - single exposure

May cause respiratory irritation.

### • Specific target organ toxicity - repeated exposure

Shall not be classified as a specific target organ toxicant (repeated exposure).

## Aspiration hazard

Shall not be classified as presenting an aspiration hazard.

## Symptoms related to the physical, chemical and toxicological characteristics

### • If swallowed

gastrointestinal complaints, vomiting, aspiration hazard, Liver and kidney damage

### • If in eyes

causes slight to moderate irritation

### • If inhaled

headache, dizziness, cough, Irritation to respiratory tract, Dyspnoea, narcosis

### • If on skin

causes skin irritation, Allergic reactions

## Other information

None

## SECTION 12: Ecological information

### 12.1 Toxicity

acc. to 1272/2008/EC: Shall not be classified as hazardous to the aquatic environment.

#### Aquatic toxicity (acute)

Endpoint	Value	Species	Source	Exposure time
EC50	69 mg/l	daphnia magna	ECHA	48 h
LC50	191 mg/l	bluegill ( <i>Lepomis macrochirus</i> )	IUCLID	96 h
ErC50	>110 mg/l	algae	ECHA	72 h
EC5: 100 mg/l <i>Pseudomonas putida</i> 16h (IUCLID)				

#### Aquatic toxicity (chronic)

Endpoint	Value	Species	Source	Exposure time
LC50	33,7 mg/l	fish	ECHA	35 d
EC50	49 mg/l	aquatic invertebrates	ECHA	21 d
NOEC	9,4 mg/l	fish	ECHA	35 d
LOEC	18,8 mg/l	fish	ECHA	35 d

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### 12.2 Process of degradability

The substance is readily biodegradable.  
Theoretical Oxygen Demand: 1,918 mg/mg  
Theoretical Carbon Dioxide: 2,198 mg/mg

Process	Degradation rate	Time
biotic/abiotic	>94 %	148 d
oxygen depletion	94 %	14 d

### 12.3 Bioaccumulative potential

Does not significantly accumulate in organisms.

n-octanol/water (log KOW) 1,38

### 12.4 Mobility in soil

Henry's law constant 14,7 Pa m<sup>3</sup>/mol at 25 °C

The Organic Carbon normalised adsorption coefficient 0,94 - 1,858

### 12.5 Results of PBT and vPvB assessment

Data are not available.

### 12.6 Other adverse effects

Slightly hazardous to water.

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

This material and its container must be disposed of as hazardous waste. Dispose of contents/container in accordance with local/regional/national/international regulations.

#### Sewage disposal-relevant information

Do not empty into drains.

#### Waste treatment of containers/packagings

It is a dangerous waste; only packagings which are approved (e.g. acc. to ADR) may be used.

### 13.2 Relevant provisions relating to waste

The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.

### 13.3 Remarks

Waste shall be separated into the categories that can be handled separately by the local or national waste management facilities. Please consider the relevant national or regional provisions.

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## SECTION 14: Transport information

<b>14.1</b>	UN number	<b>1247</b>
<b>14.2</b>	UN proper shipping name	<b>METHYL METHACRYLATE MONOMER, STABILIZED</b>
	Hazardous ingredients	Plexit® 55 Röhm
<b>14.3</b>	Transport hazard class(es)	
	Class	3 (flammable liquids)
<b>14.4</b>	Packing group	II (substance presenting medium danger)
<b>14.5</b>	Environmental hazards	none (non-environmentally hazardous acc. to the dangerous goods regulations)
<b>14.6</b>	<b>Special precautions for user</b>	
	Provisions for dangerous goods (ADR) should be complied within the premises.	
<b>14.7</b>	<b>Transport in bulk according to Annex II of MARPOL and the IBC Code</b>	
	The cargo is not intended to be carried in bulk.	
<b>14.8</b>	<b>Information for each of the UN Model Regulations</b>	
	<b>• Transport of dangerous goods by road, rail and inland waterway (ADR/RID/ADN)</b>	
	UN number	1247
	Proper shipping name	METHYL METHACRYLATE MONOMER, STABILIZED
	Particulars in the transport document	UN1247, METHYL METHACRYLATE MONOMER, STABILIZED, 3, II, (D/E)
	Class	3
	Classification code	F1
	Packing group	II
	Danger label(s)	3
		
	Excepted quantities (EQ)	E2
	Limited quantities (LQ)	1 L
	Transport category (TC)	2
	Tunnel restriction code (TRC)	D/E
	Hazard identification No	339
	<b>Emergency Action Code</b>	3YE
	<b>• International Maritime Dangerous Goods Code (IMDG)</b>	
	UN number	1247
	Proper shipping name	METHYL METHACRYLATE MONOMER, STABILIZED
	Particulars in the shipper's declaration	UN1247, METHYL METHACRYLATE MONOMER, STABILIZED, 3, II, 10°C c.c.
	Class	3

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Packing group	II
Danger label(s)	3
	
Special provisions (SP)	-
Excepted quantities (EQ)	E2
Limited quantities (LQ)	1 L
EmS	F-E, S-D
Stowage category	B

## SECTION 15: Regulatory information

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

#### Relevant provisions of the European Union (EU)

- **Regulation 649/2012/EU concerning the export and import of hazardous chemicals (PIC)**

Not listed.

- **Regulation 1005/2009/EC on substances that deplete the ozone layer (ODS)**

Not listed.

- **Regulation 850/2004/EC on persistent organic pollutants (POP)**

Not listed.

- **Restrictions according to REACH, Annex XVII**

not listed

- **List of substances subject to authorisation (REACH, Annex XIV)**

not listed

- **Seveso Directive**

#### 2012/18/EU (Seveso III)

No	Dangerous substance/hazard categories	Qualifying quantity (tonnes) for the application of lower and upper-tier requirements		Notes
P5c	flammable liquids (cat. 2, 3)	5.000	50.000	51)

#### Notation

51) Flammable liquids, categories 2 or 3 not covered by P5a and P5b

- **Limitation of emissions of volatile organic compounds due to the use of organic solvents in certain paints and varnishes and vehicle refinishing products (2004/42/EC, Deco-Paint Directive)**

VOC content 100 %

- **Directive on industrial emissions (VOCs, 2010/75/EU)**

VOC content 100 %

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## **Directive 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS) - Annex II**

not listed

## **Regulation 166/2006/EC concerning the establishment of a European Pollutant Release and Transfer Register (PRTR)**

not listed

## **Directive 2000/60/EC establishing a framework for Community action in the field of water policy (WFD)**

not listed

### **National inventories**

Substance is listed in the following national inventories:

- EINECS/ELINCS/NLP (Europe)
- REACH (Europe)

### **15.2 Chemical Safety Assessment**

No Chemical Safety Assessment has been carried out for this substance.

## **SECTION 16: Other information**

### **Abbreviations and acronyms**

<b>Abbr.</b>	<b>Descriptions of used abbreviations</b>
2009/161/EU	Comission Directive establishing a third list of indicative occupational exposure limit values in implementation of Council Directive 98/24/EC and amending Commission Directive 2000/39/EC
ADN	Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieures (European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways)
ADR	Accord européen relatif au transport international des marchandises dangereuses par route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
CAS	Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances)
CLP	Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures
CMR	Carcinogenic, Mutagenic or toxic for Reproduction
DMEL	Derived Minimal Effect Level
DNEL	Derived No-Effect Level
EH40/2005	EH40/2005 Workplace exposure limits ( <a href="http://www.nationalarchives.gov.uk/doc/open-government-licence/">http://www.nationalarchives.gov.uk/doc/open-government-licence/</a> )
EINECS	European Inventory of Existing Commercial Chemical Substances
ELINCS	European List of Notified Chemical Substances
EmS	Emergency Schedule
GHS	"Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations
IMDG	International Maritime Dangerous Goods Code
index No	the Index number is the identification code given to the substance in Part 3 of Annex VI to Regulation (EC) No 1272/2008
IOELV	indicative occupational exposure limit value
MARPOL	International Convention for the Prevention of Pollution from Ships (abbr. of "Marine Pollutant")
NLP	No-Longer Polymer
PBT	Persistent, Bioaccumulative and Toxic

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Abbr.	Descriptions of used abbreviations
PNEC	Predicted No-Effect Concentration
ppm	parts per million
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
RID	Règlement concernant le transport International ferroviaire des marchandises Dangereuses (Regulations concerning the International carriage of Dangerous goods by Rail)
STEL	short-term exposure limit
TWA	time-weighted average
VOC	Volatile Organic Compounds
vPvB	very Persistent and very Bioaccumulative
WEL	workplace exposure limit

## Key literature references and sources for data

- Regulation (EC) No. 1907/2006 (REACH), amended by 2015/830/EU
- Regulation (EC) No. 1272/2008 (CLP, EU GHS)

## List of relevant phrases (code and full text as stated in chapter 2 and 3)

Code	Text
H225	highly flammable liquid and vapour
H315	causes skin irritation
H317	may cause an allergic skin reaction
H335	may cause respiratory irritation

## Disclaimer

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.