

## Safety Data Sheet

according to UK REACH Regulation

### TI- Prime

Revision date: 11.07.2022

Product code: 4100

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

### 1.1. Product identifier

TI- Prime

UFI: 00CC-A0R6-K008-X93A

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

#### Use of the substance/mixture

electronic industry

Intermediate (precursor)

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

Company name:	MicroChemicals GmbH	
Street:	Nicolaus-Otto-Str. 39	
Place:	D-89079 Ulm	
Telephone:	+49 (0) 731 977343 0	Telefax: +49 (0) 731 977343 29
e-mail:	info@microchemicals.com	
Contact person:	Dr. Christian Koch	
e-mail:	msds@microchemicals.com	
Internet:	www.microchemicals.com	

**1.4. Emergency telephone number:** +44 1865 407333 (Transport Code: MICROCHEM29003-NCEC)

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

#### GB CLP Regulation

Flam. Liq. 3; H226

Acute Tox. 4; H332

STOT SE 3; H336

Full text of hazard statements: see SECTION 16.

### 2.2. Label elements

#### GB CLP Regulation

#### Hazard components for labelling

2-methoxy-1-methylethyl acetate

**Signal word:** Warning

**Pictograms:**



#### Hazard statements

H226	Flammable liquid and vapour.
H332	Harmful if inhaled.
H336	May cause drowsiness or dizziness.

#### Precautionary statements

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233	Keep container tightly closed.
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P312	Call a POISON CENTER/doctor if you feel unwell.

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P370+P378 In case of fire: Use Dry extinguishing powder to extinguish.  
P403+P235 Store in a well-ventilated place. Keep cool.  
P501 Dispose of contents/container to disposal in accordance with government regulations.

#### 2.3. Other hazards

No information available.

### SECTION 3: Composition/information on ingredients

#### 3.2. Mixtures

##### Hazardous components

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification (GB CLP Regulation)			
108-65-6	2-methoxy-1-methylethyl acetate			95 - < 100 %
	203-603-9	607-195-00-7	01-2119475791-29	
	Flam. Liq. 3, STOT SE 3; H226 H336			
70657-70-4	2-methoxypropyl acetate			< 0,3 %
	274-724-2	607-251-00-0		
	Flam. Liq. 3, Repr. 1B, STOT SE 3; H226 H360D H335			

Full text of H and EUH statements: see section 16.

##### Specific Conc. Limits, M-factors and ATE

CAS No	EC No	Chemical name	Quantity
	Specific Conc. Limits, M-factors and ATE		
108-65-6	203-603-9	2-methoxy-1-methylethyl acetate	95 - < 100 %
	inhalation: LC50 = 35,7 mg/l (vapours); dermal: LD50 = >2000 mg/kg; oral: LD50 = >5000 mg/kg		

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

##### General information

Remove contaminated, saturated clothing immediately. In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible). Self-protection of the first aider

##### After inhalation

Provide fresh air. Remove casualty to fresh air and keep warm and at rest. In case of irregular breathing or respiratory arrest provide artificial respiration. Call a physician immediately.

##### After contact with skin

After contact with skin, wash immediately with polyethylene glycol, followed by plenty of water. Take off immediately all contaminated clothing and wash it before reuse.

##### After contact with eyes

In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist.

##### After ingestion

Do NOT induce vomiting. Call a physician immediately. Let water be drunken in little sips (dilution effect).

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

No information available.

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

Treat symptomatically.

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**SECTION 5: Firefighting measures****5.1. Extinguishing media****Suitable extinguishing media**

Carbon dioxide (CO<sub>2</sub>), alcohol resistant foam, Extinguishing powder.

**5.2. Special hazards arising from the substance or mixture**

Flammable. Vapours can form explosive mixtures with air. Carbon monoxide Carbon dioxide Nitrogen oxides (NO<sub>x</sub>). Sulfur oxides.

**5.3. Advice for firefighters**

Wear a self-contained breathing apparatus and chemical protective clothing. Full protection suit. Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

**Additional information**

Use water spray jet to protect personnel and to cool endangered containers. Suppress gases/vapours/mists with water spray jet. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

**SECTION 6: Accidental release measures****6.1. Personal precautions, protective equipment and emergency procedures****General advice**

Remove all sources of ignition. Provide adequate ventilation. Do not breathe gas/fumes/vapour/spray. Avoid contact with skin, eyes and clothes. Use personal protection equipment.

**6.2. Environmental precautions**

Do not allow uncontrolled discharge of product into the environment. Danger of explosion

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil. Collect in closed and suitable containers for disposal. Prevent spread over a wide area (e.g. by containment or oil barriers).

**6.3. Methods and material for containment and cleaning up****Other information**

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents). Treat the recovered material as prescribed in the section on waste disposal. Clean contaminated articles and floor according to the environmental legislation. Never return spills in original containers for re-use. Clean contaminated articles and floor according to the environmental legislation.

**6.4. Reference to other sections**

Safe handling: see section 7

Personal protection equipment: see section 8

Disposal: see section 13

**SECTION 7: Handling and storage****7.1. Precautions for safe handling****Advice on safe handling**

If handled uncovered, arrangements with local exhaust ventilation have to be used. Provide adequate ventilation as well as local exhaustion at critical locations. Do not breathe gas/fumes/vapour/spray.

**Advice on protection against fire and explosion**

Keep away from sources of ignition - No smoking. Take precautionary measures against static discharges. Vapours can form explosive mixtures with air.

**Advice on general occupational hygiene**

Remove contaminated, saturated clothing immediately. Draw up and observe skin protection programme. Wash hands and face before breaks and after work and take a shower if necessary. When using do not eat or drink. Do not breathe gas/fumes/vapour/spray. Avoid contact with skin and eyes.

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

##### Requirements for storage rooms and vessels

Keep container tightly closed. Provide adequate ventilation as well as local exhaust at critical locations.

Keep in a cool, well-ventilated place. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Protect against: Light

##### Hints on joint storage

Do not store together with: Oxidising agent. Pyrophoric or self-heating substances. Food and feedingstuffs.

##### Further information on storage conditions

Recommended storage temperature 5 - 15°C

#### 7.3. Specific end use(s)

electronic industry

Intermediate (precursor)

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

##### Exposure limits (EH40)

CAS No	Substance	ppm	mg/m <sup>3</sup>	fibres/ml	Category	Origin
108-65-6	1-Methoxypropyl acetate	50	274		TWA (8 h)	WEL
		100	548		STEL (15 min)	WEL

##### DNEL/DMEL values

CAS No	Substance	Exposure route	Effect	Value
108-65-6	2-methoxy-1-methylethyl acetate			
Worker DNEL, long-term		inhalation	systemic	275 mg/m <sup>3</sup>
Worker DNEL, long-term		dermal	systemic	153 mg/kg bw/day
Worker DNEL, acute		inhalation	local	550 mg/m <sup>3</sup>

##### PNEC values

CAS No	Substance	Value
	Environmental compartment	
108-65-6	2-methoxy-1-methylethyl acetate	
Freshwater		0,635 mg/l
Marine water		0,0635 mg/l
Freshwater sediment		3,29 mg/kg
Marine sediment		0,329 mg/kg
Micro-organisms in sewage treatment plants (STP)		100 mg/kg
Soil		0,29 mg/kg

##### Additional advice on limit values

Y: A risk of reproductive effects needs not to be feared if the occupational exposure limit value (AGW) and the biological limit value (BGW) is kept

#### 8.2. Exposure controls

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#### Appropriate engineering controls

If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe gas/fumes/vapour/spray.

#### Individual protection measures, such as personal protective equipment

##### Eye/face protection

Suitable eye protection: Tightly sealed safety glasses.

##### Hand protection

Breakthrough time:: >30min

Thickness of the glove material: > 0,4mm

By short-term hand contact: NBR (Nitrile rubber)

When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances. 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.

##### Skin protection

Wear suitable protective clothing.

##### Respiratory protection

Respiratory protection necessary at: insufficient exhaust, prolonged exposure

##### Environmental exposure controls

Do not allow to enter into surface water or drains.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state:	Liquid
Colour:	colourless
Odour:	characteristic (Ether)

#### Test method

#### Changes in the physical state

Boiling point or initial boiling point and boiling range:	145 °C
Flash point:	45 °C DIN 51755
Lower explosion limits:	1 vol. %
Upper explosion limits:	7 vol. %
Auto-ignition temperature:	315 °C DIN 51794
Decomposition temperature:	not determined
pH-Value:	not applicable
Water solubility: (at 20 °C)	200 g/L

#### Solubility in other solvents

not determined

Partition coefficient n-octanol/water:	not determined
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Vapour pressure: 5 hPa  
(at 20 °C)  
Density (at 20 °C): 0,97 g/cm³  
Relative vapour density: not determined

#### 9.2. Other information

##### Information with regard to physical hazard classes

Oxidizing properties  
Not oxidising.

##### Other safety characteristics

Solid content: not determined  
Evaporation rate: not determined

##### Further Information

### SECTION 10: Stability and reactivity

#### 10.1. Reactivity

Flammable, Ignition hazard.

#### 10.2. Chemical stability

The product is chemically stable under recommended conditions of storage, use and temperature.

#### 10.3. Possibility of hazardous reactions

No hazardous reaction when handled and stored according to provisions. Incompatible materials: Oxidising substances

#### 10.4. Conditions to avoid

Keep away from sources of heat (e.g. hot surfaces), sparks and open flames. Vapours can form explosive mixtures with air.

#### 10.5. Incompatible materials

Oxidising agent, Strong acid, Base

#### 10.6. Hazardous decomposition products

No known hazardous decomposition products.

### SECTION 11: Toxicological information

#### 11.1. Information on hazard classes as defined in GB CLP Regulation

##### Toxicokinetics, metabolism and distribution

The product has not been tested.

##### Acute toxicity

The product has not been tested.

##### ATEmix tested

	Dose	Species	Source
LD50, oral	>8500 mg/kg	Rat	
LD50, dermal	>5000 mg/kg	Rabbit	
LC50, inhalation (vapour)	>23 mg/l	Rat	

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CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
108-65-6	2-methoxy-1-methylethyl acetate				
	oral	LD50 mg/kg	>5000	Rat	ECHA OECD 401
	dermal	LD50 mg/kg	>2000	Rat	ECHA OECD 402
	inhalation (4 h) vapour	LC50	35,7 mg/l	Rat	

#### Irritation and corrosivity

Skin contact:

Species: Rabbit

Result: non-irritant.

### SECTION 12: Ecological information

#### 12.1. Toxicity

The product is not: Ecotoxic.

Aquatic toxicity:

LC50: 100-180 mg/l

Exposure time: 96h

Species: Oncorhynchus mykiss (Rainbow trout)

CAS No	Chemical name					
	Aquatic toxicity	Dose	[h]   [d]	Species	Source	Method
108-65-6	2-methoxy-1-methylethyl acetate					
	Acute fish toxicity	LC50	134 mg/l	96 h	Oncorhynchus mykiss	OECD 203
	Acute algae toxicity	ErC50 mg/l	>1000	96 h	Pseudokirchneriella subcapitata	OECD 201
	Acute crustacea toxicity	EC50	373 mg/l	48 h	Daphnia magna	OECD 202
	Fish toxicity	NOEC mg/l	47,5	14 d		ECHA
	Algae toxicity	NOEC mg/l	1000	1 d		ECHA
	Crustacea toxicity	NOEC	100 mg/l	21 d		ECHA

#### 12.2. Persistence and degradability

The product is: Biodegradable.

CAS No	Chemical name			
	Method	Value	d	Source
	Evaluation			
108-65-6	2-methoxy-1-methylethyl acetate			
		100%		ECHA
	Readily biodegradable (according to OECD criteria).			

#### 12.3. Bioaccumulative potential

The product has not been tested.

2-Methoxy-1-methylethylacetat: On the basis of existing data about the elimination/degradation and bioaccumulation potential longer term damage to the environment is unlikely.

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#### Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
108-65-6	2-methoxy-1-methylethyl acetate	1,2

#### 12.4. Mobility in soil

The product has not been tested.

2-Methoxy-1-methylethylacetat: Koc.1,7

#### 12.5. Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to UK REACH.

The product has not been tested.

2-Methoxy-1-methylethylacetat: The substance in the mixture does not meet the PBT/vPvB criteria according to REACH, annex XIII.

#### 12.6. Endocrine disrupting properties

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

#### 12.7. Other adverse effects

No information available.

#### Further information

Avoid release to the environment. Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil.

### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

##### Disposal recommendations

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil. Dispose of waste according to applicable legislation.

##### Contaminated packaging

This material and its container must be disposed of as hazardous waste. Handle contaminated packages in the same way as the substance itself.

### SECTION 14: Transport information

#### Land transport (ADR/RID)

##### 14.1. UN number or ID number:

UN 3272

##### 14.2. UN proper shipping name:

ESTERS, N.O.S. (2-Methoxy-1-methylethylacetat)

##### 14.3. Transport hazard class(es):

3

##### 14.4. Packing group:

III

Hazard label:

3



Classification code:

F1

Special Provisions:

274

Limited quantity:

5 L

Excepted quantity:

E1

Transport category:

3

Hazard No:

30

Tunnel restriction code:

D/E

#### Inland waterways transport (ADN)

##### 14.1. UN number or ID number:

UN 3272

##### 14.2. UN proper shipping name:

ESTERS, N.O.S. (2-Methoxy-1-methylethylacetat)



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#### 14.3. Transport hazard class(es):

3

#### 14.4. Packing group:

III

Hazard label:

3



Classification code:

F1

Special Provisions:

274 601

Limited quantity:

5 L

Excepted quantity:

E1

#### Marine transport (IMDG)

##### 14.1. UN number or ID number:

UN 3272

##### 14.2. UN proper shipping name:

ESTERS, N.O.S. (2-methoxy-1-methylethyl acetate)

##### 14.3. Transport hazard class(es):

3

##### 14.4. Packing group:

III

Hazard label:

3



Special Provisions:

223, 274

Limited quantity:

5 L

Excepted quantity:

E1

EmS:

F-E, S-D

#### Air transport (ICAO-TI/IATA-DGR)

##### 14.1. UN number or ID number:

UN 3272

##### 14.2. UN proper shipping name:

ESTERS, N.O.S. (2-methoxy-1-methylethyl acetate)

##### 14.3. Transport hazard class(es):

3

##### 14.4. Packing group:

III

Hazard label:

3



Special Provisions:

A3

Limited quantity Passenger:

10 L

Passenger LQ:

Y344

Excepted quantity:

E1

IATA-packing instructions - Passenger:

355

IATA-max. quantity - Passenger:

60 L

IATA-packing instructions - Cargo:

366

IATA-max. quantity - Cargo:

220 L

#### 14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS:

No

#### 14.6. Special precautions for user

No information available.

#### 14.7. Maritime transport in bulk according to IMO instruments

not applicable

### SECTION 15: Regulatory information

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

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#### EU regulatory information

Restrictions on use (REACH, annex XVII):

Entry 3, Entry 30, Entry 40, Entry 75

2010/75/EU (VOC): 95 % (921,5 g/l)

2004/42/EC (VOC): 95,671 % (928,009 g/l)

#### Additional information

To follow: 850/2004/EC, 79/117/EEC, 689/2008/EC

#### National regulatory information

Employment restrictions: Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC).

Water hazard class (D): 2 - obviously hazardous to water

#### 15.2. Chemical safety assessment

Chemical safety assessments for substances in this mixture were not carried out.

### SECTION 16: Other information

#### Changes

This data sheet contains changes from the previous version in section(s): 2,7,8,14,15.

#### Abbreviations and acronyms

ADR: Accord européen sur le transport des marchandises dangereuses par Route  
(European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service

LC50: Lethal concentration, 50%

LD50: Lethal dose, 50%

#### Classification for mixtures and used evaluation method according to GB CLP Regulation

Classification	Classification procedure
Flam. Liq. 3; H226	On basis of test data
Acute Tox. 4; H332	On basis of test data
STOT SE 3; H336	Calculation method

#### Relevant H and EUH statements (number and full text)

H226 Flammable liquid and vapour.  
H332 Harmful if inhaled.  
H335 May cause respiratory irritation.  
H336 May cause drowsiness or dizziness.  
H360D May damage the unborn child.

#### Further Information

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.

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**Identified uses**

No	Short title	LCS	SU	PC	PROC	ERC	AC	TF	Specification
1	Adhesion Promoter	F, IS, SL	16, 0	14, 15, 21	13, 0	5	0	4	TI-Prime

LCS: Life cycle stages

PC: Product categories

ERC: Environmental release categories

TF: Technical functions

SU: Sectors of use

PROC: Process categories

AC: Article categories

*(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)*