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	VINYL ACETATE MONOMER	Effective From	19/12/2022

1.) Identification of the substance/preparation and of the company/undertaking

Identification of the substance or preparation

Trade name: Vinyl acetate monomer (purity more than 99.5%)

Use of the substance/preparation

Chemical processes general; Adhesives; Colors

Company/undertaking identification

Manufacturer Name: Bloomchemag BV
Address: Sint - Antoniusstraat 16 b1, B-2400 Mol, Belgium
Telephone no.: +91 72919 74484 / 72919 74050
E-mail: info@bloomchemag.com

2.) Hazards identification

GHS Classification

Hazards	Category
Flammable liquid	Category 2
Acute oral toxicity	Category 5
Acute inhalation toxicity	Category 4
Specific target organ systemic toxicity (single exposure)	Category 3
Carcinogenicity	Category 2
Acute aquatic toxicity	Category 3

Symbol(s)



Labeling

Signal Word	Danger
Hazard Statements	H225 - Highly flammable liquid and vapor H303 - May be harmful if swallowed H332 - Harmful if inhaled H335 - May cause respiratory irritation H351 - Suspected of causing cancer H402 - Harmful to aquatic life

Precautionary statements

Prevention

- P201 - Obtain special instructions before use
- P202 - Do not handle until all safety precautions have been read and understood
- P210 - Keep away from heat/sparks/open flames/hot surfaces. - No smoking

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- P261 - Avoid breathing dust/fume/gas/mist/vapors/spray
- P271 - Use only outdoors or in a well-ventilated area
- P281 - Use personal protective equipment as required
- P233 - Keep container tightly closed
- P240 - Ground/Bond container and receiving equipment
- P242 - Use only non-sparking tools
- P243 - Take precautionary measures against static discharge
- P273 - Avoid release to the environment

Response

- P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower
- P304 + P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
- P312 - Call a POISON PHYSICIAN/doctor/physician if you feel unwell.
- P308 + P313 - IF exposed or concerned: Get medical attention/advice
- P370 + P378 - In case of fire, use water/water spray/water jet/carbon dioxide/sand/foam/alcohol resistant foam/chemical powder for extinction

Storage

- P402 - Store in a dry place
- P405 - Store locked up

Disposal

- P501 - Dispose of contents/container in accordance with local regulations

Physical and chemical hazards

Extremely flammable liquid and vapor. Vapor may cause flash fire May polymerize violently or explosively if contaminated or overheated.

3.) Composition / information on ingredients**Chemical characterization**

Vinyl Acetate Monomer

Components	CAS-No	Percent %
Vinyl acetate	108-05-4	min 99.5

4.) First aid measures**After inhalation**

Ensure supply of fresh air. In the event of symptoms take medical treatment.

After skin contact

Rinse with plenty of water

After ingestion

Do not induce vomiting. Seek medical attention.


Advice to doctor**Treatment**

If swallowed, in the event of vomiting, risk of product entering the lungs. Administer approximately 0.3 litres paraffin oil oral. If swallowed, flush stomach.

5.) Fire-fighting measures**Suitable extinguishing media**

Carbon dioxide; Water spray jet; extinguishing powder

Extinguishing media that must not be used for safety reasons

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Full water jet

Special exposure hazards arising from the substance or preparation itself, combustion products, resulting gases
Combustion products of this material have to be classed invariably as respiratory poison.

Special protective equipment for fire-fighters

Fire-fighting operations, rescue and clearing work under effect of combustion and smoulder gases just may be done with breathing apparatus.

6.) **Accidental release measures**

Personal precautions

Use personal protective clothing. Ensure adequate ventilation.

Environmental precautions

Do not allow to enter drains or waterways.

Methods for cleaning up/taking up

Pick up with absorbent material

7.) **Handling and storage**

Handling

Advice on safe handling

Avoid formation of aerosols. Provide good ventilation of working area (local exhaust ventilation, if necessary).

Advice on protection against fire and explosion

Take precautionary measures against static charges. Keep away from sources of ignition-refrain from smoking.

Temperature class

T2

Storage

Advice on storage assembly

Do not store together with: Alkalies; Acids; Oxidizing agents

Further information on storage conditions

Keep container tightly closed, cool and dry. Protect from light.

8.) **Exposure controls / personal protection**

Exposure limit values

vinyl acetate

CAS no. 108-05-4

EC no. 203-545-4

List of approved workplace exposure limits (WELs) / EH40

Vinyl acetate

TWA 36 mg/m³ 10 ml/ m³

STEL 72 mg/m³ 20 ml/m³

Exposure controls

Personal protective equipment

Respiratory protection

Breathing apparatus in the event of aerosol or mist formation . In case of insufficient ventilation or long-term effect use breathing apparatus. Filter A or environment-independent breathing apparatus.

Hand protection

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In case of intensive contact, wear protective gloves (EN 374). Sufficient protection is given wearing suitable protective gloves checked according to i.e. EN 374, in the event of risk of skin contact with the product. Before use, the protective glove should be tested in any case for its specific work-station suitability (i.e. mechanical resistance, product compatibility and antistatic properties). Adhere to the manufacturer's instructions and information relating to the use, storage, care and replacement of protective gloves. Protective gloves shall be replaced immediately when physically damaged or worn. Design operations thus to avoid permanent use to protective gloves.

Eye protection

Tightly fitting safety glasses (EN 166).

Skin protection

light protective clothing, anti-static

General protective and hygiene measures

At work do not eat, drink, smoke or take drugs.

9.) Physical and chemical properties**General information**

Form	liquid
Colour	colourless
Odour	sweetish

Important health, safety and environmental information**Changes in physical state**

Type	Melting point	
Value	-93.2	°C
Type	Boiling point	
Value	72	°C

Flash point

Value	-8	°C
Method	ASTM D 92	

Explosion limits

Upper explosion limit	13.4	% vol
Lower explosion limit	2.6	% vol

Vapour pressure

Value	111	mbar
Reference temperature	20	°C

Density

Value	0.93	g/cm ³
Reference temperature	20	°C

Viscosity

Type	dynamic
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Value 0.43 mpa*s

Reference temperature 20 °C

Solubility in water

Value 20 g/l

Reference temperature 20 °C

PH value

Value 7

Octanol/water partition coefficient (Log Pow)

Value ≤ 3.0

10.) Stability and reactivity**Conditions to avoid**

Reactions with acids,alkalies and oxidizing agents,if heating up polymerisation.Formation of explosive gas/air mixtures.

Reactions with light metals.Reactions with amines.

Hazardous decomposition products

Carbon monoxide and carbon dioxide

Thermal decomposition

Remarks No decomposition below 350°C.

11.) Toxicological information**Acute toxicity**

Acute oral toxicity LD50: 3500mg/Kg

Species rat

Acute dermal toxicity LD50: 7440mg/Kg

Species rabbit, male

Acute inhalational toxicity LD50: 14mg/l

Duration of exposure 4h

Species rat

Skin corrosion/irritation Not irritating

Species rabbit

Method OECD 404

Serious eye damage/eye irritation Not irritating

Species rabbit

Method OECD 405

Skin Sensitization nonsensitizer

Species rat

Method OECD 429

in vitro Mutagenicity

Ames Test: negative - with and without metabolic activation –

Method: OECD 471

Chromosome aberrations in cultured human lymphocytes:

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in vivo Mutagenicity	positive - with and without metabolic activation - Method: OECD 473 Cytotoxicity and micronucleos assay in human lymphoblastoid cells (TK6): positive - Method: OECD 487 Mammalian Erythrocyte Micronucleus Test in mice: ambiguous - Method: OECD 474 Effects on sperm morphology and meiotic micronuclei in mice: negative
Carcinogenic effects	Has been shown to cause cancer in lifetime rat and mouse inhalation studies at the site of contact at nonphysiologically relevant doses Species: rats and mice NOAEC: 176 mg/m ³ Study: 104-week inhalation study
Carcinogenic Effects	Has been shown to cause cancer in lifetime rat and mouse drinking water studies at the site of contact at nonphysiologically relevant doses Species: rats and mice LOAEL: 31 mg/kg bw/day Study : 104-week oral gavage study
Reproductive toxicity	No toxicity to reproduction Routes of exposure: oral drinking water Species : rat Method OECD 416 NOAEL= 1000 ppm
Developmental effects	no adverse developmental effects Routes of exposure: oral drinking water and Inhalation Species: rat Method :OECD 414
Repeated exposure	No adverse effects Routes of exposure: oral gavage Species: rats and mice Method : OECD 408 NOAEL: 281 mg/kg bw/day
Repeated Exposure	Type of study: 90-day oral subchronic toxicity study No adverse effects Routes of exposure: Inhalation Species: rats and mice Method : OECD 453 NOAEC: 176 mg/m ³

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Type of study: 104-weeks inhalation study

12.) Ecological information**Ecotoxicity****Fish toxicity**

LC50 18 mg/l

Species Lepomis macrochirus

Duration of exposure 96 h

NOEC 1,71 mg/l

Species Pimephales promelas

Duration of exposure 28 d

Method early life stage test

Daphnia toxicity

EC50 12,6 mg/l

Species Daphnia magna

Duration of exposure 48 h

NOEC 4,77 mg/l

Species Daphnia magna

Duration of exposure 48 h

Algae Toxicity

EC50 12,7 mg/l

Species Algae

Duration of exposure 72 h

NOEC 5,96 mg/l

Species Algae

Duration of exposure 72 h

Bacteria toxicity

ECO 6 mg/l

Species Pseudomonas putida

Duration of exposure 16 h

Mobility

Remarks Estimation of the adsorption coefficient(Koc) on soil and on sewage using high Performance liquid chromatography(HPLC)

Remarks log Koc:0,86


Persistence and degradability**Biodegradability**

Value > 80 %

Duration of exposure 28 d

Method readily biodegradable

Bioaccumulative potential

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33 Take precautionary measures against static discharges.

Council Directive 96/82/EC on the control of major-accident hazards involving dangerous substances

Remarks Annex 1, part 2, category 7 b

16.) Other information

Sources if key data used to compile the data sheet :

EC Directive 67/548/EC resp. 99/45/EC as amended in each case.

Regulation (EC) No 1907/2006 (REACH) as amended in each case.

EC Directives 2000/39/EC , 2020/878 /EC as amended in each case .

National Threshold Limit Values of the corresponding countries as amended in each case.

Transport regulations according to ADR,RID,IMDG,IATA as amended in each case.

The data sources used to determine physical, toxic and exotoxic data, are indicated directly in the corresponding chapter.

Alterations/supplements:

Alterations to the previous edition are marked in the left-hand margin.