

\* BÜFA®-Crystal-Clear-Gelcoat-S

Date revised: 26.01.2023

# 72220200240

Version: 6 / WORLD

Master No. M-401

Print date: 18.03.2024

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

### **1.1. Product identifier**

#### **Trade name**

BÜFA®-Crystal-Clear-Gelcoat-S

#### **UFI**

UFI: DWNH-S0HQ-000Y-VS4V

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

#### **Use of the substance/mixture**

Purpose of use: Raw substance formulas for manufacturing shaped parts from unsaturated polyester / vinyl ester resins.

#### **Uses advised against**

SU21 Consumer uses: Private households (= general public = consumers)

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

#### **Address**

BÜFA Composite Systems GmbH &amp; Co. KG

Hohe Looe 2-8

26180 Rastede

Telephone no. +49 4402 975-0

Fax no. +49 4402 975-400

Information provided Department product safety / +49 4402 975-415

by / telephone

E-Mail produktsicherheit-bcs@buefa.de

### **1.4. Emergency telephone number**

Giftzentrale Goettingen: +49 551 19240

## **SECTION 2: Hazards identification \*\*\***

### **2.1. Classification of the substance or mixture**

#### **Classification (Regulation (EC) No. 1272/2008)**

Flam. Liq. 3 H226

Acute Tox. 4 H332

Skin Irrit. 2 H315

Eye Irrit. 2 H319

Skin Sens. 1 H317

Repr. 2 H361d

STOT SE 3 H335

STOT RE 1 H372

Organs: Ear; Route of exposure: inhalative

Aquatic Chronic 3 H412

The product is classified and labelled in accordance with Regulation (EC) No 1272/2008

For explanation of abbreviations see section 16.

### **Labelling according to regulation (EC) No 1272/2008**

#### **Labelling according to regulation (EC) No 1272/2008**

#### **Hazard pictograms**

\* BÜFA®-Crystal-Clear-Gelcoat-S

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# 72220200240

Version: 6 / WORLD

Master No. M-401

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**Signal word**

Danger

**Hazard statements**

H226	Flammable liquid and vapour.
H332	Harmful if inhaled.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H317	May cause an allergic skin reaction.
H361d	Suspected of damaging the unborn child.
H335	May cause respiratory irritation.
H372	Causes damage to organs through prolonged or repeated exposure. Ear; Route of exposure: inhalative
H412	Harmful to aquatic life with long lasting effects.

**Precautionary statements**

P210.9	Keep away from sparks, open flames and other ignition sources. No smoking.
P260.8	Do not breathe vapours/spray.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308+P313	IF exposed or concerned: Get medical advice/ attention.

**Hazardous component(s) to be indicated on label (Regulation (EC) No. 1272/2008)**

contains styrene;methyl methacrylate;Neodecanoic acid, cobalt salt

**2.3. Other hazards**

\*\*\*

The product contains no PBT substances. The product contains no vPvB substances. This product does not contain a substance that has endocrine disrupting properties with respect to human. The product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms.

**SECTION 3: Composition/information on ingredients****3.2. Mixtures****Hazardous ingredients****styrene**

CAS No.	100-42-5
EINECS no.	202-851-5
Registration no.	01-2119457861-32-XXXX
Concentration	>= 29 < 50 %
Flam. Liq. 3	H226
Skin Irrit. 2	H315
Acute Tox. 4	H332
Eye Irrit. 2	H319
STOT SE 3	H335
STOT RE 1	H372
Asp. Tox. 1	H304
Repr. 2	H361d
Aquatic Chronic 3	H412

Organs: Ear; Route of exposure: inhalative

\* BÜFA®-Crystal-Clear-Gelcoat-S

Date revised: 26.01.2023

# 72220200240

Version: 6 / WORLD

Master No. M-401

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cATpE	inhalative, Dust/Mist	1,5	mg/l
ATE	inhalative, Vapors	11,8	mg/l

Additional remarks:

CLP Regulation (EC) No 1272/2008, Annex VI, Note D

**methyl methacrylate**

CAS No.	80-62-6		
EINECS no.	201-297-1		
Registration no.	01-2119452498-28-XXXX		
Concentration	>=	1	< 10 %
Flam. Liq. 2	H225		
Skin Irrit. 2	H315		
Skin Sens. 1	H317		
STOT SE 3	H335		

Additional remarks:

CLP Regulation (EC) No 1272/2008, Annex VI, Note D

**Neodecanoic acid, cobalt salt**

CAS No.	27253-31-2		
EINECS no.	248-373-0		
Registration no.	01-2119970733-31-0006		
Concentration	>=	0,1	< 1 %
Acute Tox. 4	H302		
Skin Sens. 1	H317		
Repr. 2	H361		
Aquatic Chronic 3	H412		

Complete text of hazard statements in chapter 16

**SECTION 4: First aid measures****4.1. Description of first aid measures****General information**

Adhere to personal protective measures when giving first aid. Remove soiled or soaked clothing immediately, do not allow to dry. If the patient is likely to become unconscious, place and transport in stable sideways position.

**After inhalation**

Remove the casualty into fresh air and keep him calm. Irregular breathing/no breathing: artificial respiration. In the event of symptoms take medical treatment.

**After skin contact**

Wash off immediately with soap and water.

**After eye contact**

In case of contact with the eyes, rinse immediately for at least 15 minutes with plenty of water. Seek medical advice immediately. Remove contact lenses

**After ingestion**

Rinse mouth thoroughly with water. Summon a doctor immediately. Do not induce vomiting. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. If individual is drowsy or unconscious place in recovery position (on left side, with head down).

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

The following symptoms may occur: Headache, Dizziness, Nausea, Dizziness

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

Treat symptomatically

**SECTION 5: Firefighting measures**

\* BÜFA®-Crystal-Clear-Gelcoat-S

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# 72220200240

Version: 6 / WORLD

Master No. M-401

Print date: 18.03.2024

### 5.1. Extinguishing media

#### Suitable extinguishing media

Alcohol-resistant foam, Dry powder, Carbon dioxide

#### Non suitable extinguishing media

Full water jet

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

In case of combustion evolution of dangerous gases possible. In the event of fire the following can be released: Carbon monoxide (CO); Nitrogen oxides (NOx); dense black smoke

### 5.3. Advice for firefighters

Use self-contained breathing apparatus.

Cool endangered containers with water spray jet. Collect contaminated fire-fighting water separately, must not be discharged into the drains.

## SECTION 6: Accidental release measures

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

Avoid contact with skin, eyes and clothing. Use personal protective clothing. Keep away sources of ignition. Ensure adequate ventilation. Use breathing apparatus if exposed to vapours/dust/aerosol.

### 6.2. Environmental precautions

Do not allow to enter drains or waterways. Do not discharge into the subsoil/soil. Prevent spread over a wide area (e.g. by containment or oil barriers).

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

Pick up with absorbent material (eg sand, kieselgur, acid binder, universal binder, sawdust). When picked up, treat material as prescribed under Section 13 "Disposal".

### 6.4. Reference to other sections

Information regarding Safe handling, see Section 7. Information regarding personal protective measures, see Section 8. Information regarding waste disposal, see Section 13.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Provide good ventilation of working area (local exhaust ventilation if necessary). Avoid formation of aerosols. Observe the usual precautions for handling chemicals.

Keep away from sources of ignition - No smoking. Take action to prevent static discharges. Vapours can form an explosive mixture with air.

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

Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Keep container tightly closed and dry in a cool, well-ventilated place. Protect from heat and direct sunlight.

### 7.3. Specific end use(s)

No information available

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### Derived No/Minimal Effect Levels (DNEL/DMEL)

##### methyl methacrylate

Reference substance

methyl methacrylate

DNEL

Conditions

Worker

Long term

inhalative

\* BÜFA®-Crystal-Clear-Gelcoat-S

Date revised: 26.01.2023

# 72220200240

Version: 6 / WORLD

Master No. M-401

Print date: 18.03.2024

Concentration	210		mg/m <sup>3</sup>		
DNEL					
Conditions	Worker	Long term		dermal	
Concentration	74,3		mg/m <sup>3</sup>		
<b>styrene</b>					
DNEL					
Conditions	Worker	Acute		inhalative	Systemic effects
Concentration	289		mg/m <sup>3</sup>		
DNEL					
Conditions	Worker	Long term		inhalative	Systemic effects
Concentration	85		mg/m <sup>3</sup>		
DNEL					
Conditions	Worker	Acute		inhalative	Local effects
Concentration	306		mg/m <sup>3</sup>		
DNEL					
Conditions	Worker	Long term		dermal	Systemic effects
Concentration	406		mg/kg/d		
<b>Neodecanoic acid, cobalt salt</b>					
Reference substance		Neodecanoic acid, cobalt salt			
Conditions	Worker	Long term			Local effects
Concentration	0,273		mg/m <sup>3</sup>		

## 8.2. Exposure controls

### Appropriate engineering controls

Use only in well ventilated areas.

Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

### General protective and hygiene measures

Provide good ventilation of working area (local exhaust ventilation if necessary). Avoid contact with skin and eyes. Do not inhale gases/vapours/aerosols. Personal protective equipment must comply with the Regulation (EC) No 2016/425 and the resulting CEN standards.

### Respiratory protection

If workplace limits are exceeded, a respiratory protection approved for this particular job must be worn. Short term: filter apparatus, Filter A; Self-contained breathing apparatus. Respiratory protection must comply with DIN EN 136 / DIN EN 140 / DIN EN 143 / DIN EN 149.

### Hand protection

Chemical resistant gloves

Appropriate Material	Butyl rubber		
Material thickness	0,7	mm	
Breakthrough time	= 30	min	

Hand protection must comply with EN 374.

### Eye protection

Tightly fitting safety glasses; Eye protection must comply with EN ISO 16321-1:2022.

### Body protection

Clothing as usual in the chemical industry. Wear protective clothing according to EN 13034: 2005 + A1: 2009.

\* BÜFA®-Crystal-Clear-Gelcoat-S

Date revised: 26.01.2023

# 72220200240

Version: 6 / WORLD

Master No. M-401

Print date: 18.03.2024

## SECTION 9: Physical and chemical properties

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

<b>Form</b>	liquid
<b>Colour</b>	transparent
<b>Odour</b>	of styrene
<b>Melting point</b>	
Remarks	Not applicable
<b>Freezing point</b>	
Remarks	Not applicable
<b>Boiling point</b>	
Value	145 °C
Remarks	Information refers to the main component.
<b>Flammability</b>	
Remarks	No data available
<b>Explosion limits</b>	
Lower explosion limit	1,1 to 6,1 % (V)
Remarks	Information refers to the main component.
<b>Flash point</b>	
Value	31 °C
Method	ISO 3679-B
<b>Ignition temperature</b>	
Value	490 °C
Remarks	Information refers to the main component.
<b>Thermal decomposition</b>	
Remarks	No data available
<b>Self Accelerating Decomposition / Polymerization Temperature (SADT/SAPT)</b>	
Remarks	Not applicable
<b>pH value</b>	
Remarks	Not applicable
<b>Solubility in other solvents</b>	
Value	320 mg/l
	25 °C
Remarks	Information refers to the main component.
Source	Manufacturer's data
<b>Octanol/water partition coefficient (log Pow)</b>	
Remarks	No data available
<b>Vapour pressure</b>	
Value	6,67 hPa
Temperature	20 °C
Remarks	Information refers to the main component.
<b>Density</b>	
Value	1,075 g/cm <sup>3</sup>
Temperature	20 °C
Method	DIN EN ISO 2811-1
<b>Vapour density</b>	
Remarks	No data available
<b>Particle characteristics</b>	
Remarks	Not applicable

\* BÜFA®-Crystal-Clear-Gelcoat-S

Date revised: 26.01.2023

# 72220200240

Version: 6 / WORLD

Master No. M-401

Print date: 18.03.2024

## 9.2. Other information

### Efflux time

Value	>	61	s
Temperature		23	°C
Method		DIN EN ISO 2431 - 6 mm	

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

No hazardous reactions when stored and handled according to prescribed instructions.

### 10.2. Chemical stability

The product is stable.

### 10.3. Possibility of hazardous reactions

Under normal conditions of storage and use, hazardous reactions will not occur.

### 10.4. Conditions to avoid

Protect from heat and direct sunlight.

#### Thermal decomposition

Remarks No data available

### 10.5. Incompatible materials

Reactions with peroxides and other radical components.

### 10.6. Hazardous decomposition products

No hazardous decomposition products known.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

#### Acute oral toxicity

Based on available data, the classification criteria are not met.

#### Acute oral toxicity (Components)

##### methyl methacrylate

Species	rat		
LD50	>	5000	mg/kg
Method	OECD 401		

##### styrene

Species	rat		
LD50	>	5000	mg/kg

#### Acute dermal toxicity

Based on available data, the classification criteria are not met.

#### Acute dermal toxicity (Components)

##### methyl methacrylate

Species	rabbit		
LD50	>	5000	mg/kg

##### styrene

Species	rat		
LD50	>	5000	mg/kg

#### Acute inhalational toxicity

ATE		31,37	mg/l
Administration/Form	Vapors		
Method	calculated value (Regulation (EC) No. 1272/2008)		

\* BÜFA®-Crystal-Clear-Gelcoat-S

Date revised: 26.01.2023

# 72220200240

Version: 6 / WORLD

Master No. M-401

Print date: 18.03.2024

ATE 3,99 mg/l  
 Administration/Form Dust/Mist  
 Method calculated value (Regulation (EC) No. 1272/2008)  
 The classification criteria are met.

**Acute inhalative toxicity (Components)****methyl methacrylate**

Species rat  
 LC50 29,8 mg/l

**styrene**

Species rat  
 LC50 11,8 mg/l  
 Duration of exposure 4 h  
 Administration/Form Vapors

**Skin corrosion/irritation**

evaluation irritant  
 The classification criteria are met.

**Serious eye damage/irritation**

evaluation irritant  
 The classification criteria are met.

**Sensitization**

evaluation May cause sensitization by skin contact.  
 The classification criteria are met.

**Mutagenicity**

Based on available data, the classification criteria are not met.

**Reproductive toxicity**

evaluation Suspected of damaging the unborn child.  
 The classification criteria are met.

**Carcinogenicity**

Based on available data, the classification criteria are not met.

**Specific Target Organ Toxicity (STOT)****Single exposure**

The classification criteria are met.  
 evaluation May cause respiratory irritation.

**Repeated exposure**

The classification criteria are met.  
 evaluation Causes damage to organs through prolonged or repeated exposure

**Specific Target Organ Toxicity (STOT) (Components)****styrene****Repeated exposure**

evaluation Causes damage to organs through prolonged or repeated exposure  
 Route of exposure inhalative  
 Organs: Ear

**Aspiration hazard**

Based on available data, the classification criteria are not met.

**11.2 Information on other hazards****Endocrine disrupting properties with respect to humans**

The product does not contain a substance that has endocrine disrupting properties with respect to humans.

**Other information**

Inhalation of solvent vapours in higher concentration may lead to nausea, headache, drowsiness and

\* BÜFA®-Crystal-Clear-Gelcoat-S

Date revised: 26.01.2023

# 72220200240

Version: 6 / WORLD

Master No. M-401

Print date: 18.03.2024

dizziness.

## SECTION 12: Ecological information

### 12.1. Toxicity

#### Fish toxicity

##### methyl methacrylate

Species	rainbow trout ( <i>Oncorhynchus mykiss</i> )		
LC50	> 79		mg/l
Duration of exposure	96	h	

Method	OECD 203		
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Species	zebra fish ( <i>Brachydanio rerio</i> )		
NOEC	9,4		mg/l
Method	OECD 210		

##### styrene

LC/EC/IC50	> 1,0	to	10	mg/l
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#### Daphnia toxicity

##### methyl methacrylate

Species	Daphnia magna		
EC50	69		mg/l
Duration of exposure	48	h	

Method	OECD 202		
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Species	Daphnia magna		
NOEC	37		mg/l
Duration of exposure	21	Days	

Method	OECD 202 Part 2		
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Durchfluss

##### styrene

Species	Daphnia magna			
LC/EC/IC50	> 1,0	to	10	mg/l

#### Algae toxicity

##### methyl methacrylate

Species	Selenastrum capricornutum		
EC50	> 110		mg/l
Duration of exposure	72	h	

Method	OECD 201		
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##### styrene

LC/EC/IC50	> 1,0	to	10	mg/l
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#### Bacteria toxicity

##### methyl methacrylate

Species	Pseudomonas putida		
EC3	100		mg/l
Duration of exposure	16	h	

### 12.2. Persistence and degradability

For this subsection there is no ecotoxicological data available on the product as such.

#### Biodegradability

##### methyl methacrylate

Value	94		%
Duration of test	14	Days	

evaluation readily degradable

Method	OECD 301 C		
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##### styrene

\* BÜFA®-Crystal-Clear-Gelcoat-S

Date revised: 26.01.2023

# 72220200240

Version: 6 / WORLD

Master No. M-401

Print date: 18.03.2024

evaluation

Readily biodegradable (according to OECD criteria)

**12.3. Bioaccumulative potential**

For this subsection there is no ecotoxicological data available on the product as such.

**Octanol/water partition coefficient (log Pow)**

Remarks

No data available

**12.4. Mobility in soil**

For this subsection there is no ecotoxicological data available on the product as such.

**12.5. Results of PBT and vPvB assessment****Evaluation of persistence and bioaccumulation potential**

The product contains no PBT substances

The product contains no vPvB substances.

**12.6. Other adverse effects****Endocrine disrupting properties with respect to the environment**

The product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms.

**12.7. Other adverse effects**

For this subsection there is no ecotoxicological data available on the product as such.

**SECTION 13: Disposal considerations****13.1. Waste treatment methods****Disposal recommendations for the product**

EWC waste code 07 02 08\* other still bottoms and reaction residues

The listed waste code numbers, according to the European Waste Catalogue (EWC), are to be understood as a recommendation. A final decision must be made in agreement with the regional waste disposal company.

**Disposal recommendations for packaging**

Packaging that cannot be cleaned should be disposed off as product waste.

**SECTION 14: Transport information \*\*\***

\* BÜFA®-Crystal-Clear-Gelcoat-S

Date revised: 26.01.2023

# 72220200240

Version: 6 / WORLD

Master No. M-401

Print date: 18.03.2024

	Land transport ADR/RID ***	Marine transport IMDG/GGVSee
14.1. UN number	1866	1866
14.2. UN proper shipping name	RESIN SOLUTION	RESIN SOLUTION
14.3. Transport hazard class(es)	3	3
14.4. Packing group	III	III
Label		
14.5. Environmental hazards	-	
Limited Quantity		5 l
Limited Quantity	5 l	
Transport category	3	
Tunnel restriction code	D/E	
Hazard id. no.	30	
EmS		F-E, S-E
Remarks	Viscous product: Transport according to paragraph 2.2.3.1.5 ADR/RID	Transport according to 2.3.2.5 of the IMDG Code

**Information for all modes of transport****14.6. Special precautions for user**

Ensure that persons transporting the product know what to do in the event of an accident or spillage.

**Other information****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****Other information \*\*\***

The product does not contain substances according to: Candidate List for inclusion in Annex XIV of Regulation (EC) No. 1907/2006 (REACH).

**15.2. Chemical safety assessment**

\* BÜFA®-Crystal-Clear-Gelcoat-S

Date revised: 26.01.2023

# 72220200240

Version: 6 / WORLD

Master No. M-401

Print date: 18.03.2024

No information available

## SECTION 16: Other information

### Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

Flam. Liq. 3	H226	On basis of test data
Acute Tox. 4	H332	Calculation method
Skin Irrit. 2	H315	Calculation method
Eye Irrit. 2	H319	Calculation method
Skin Sens. 1	H317	Calculation method
Repr. 2	H361d	Calculation method
STOT SE 3	H335	Calculation method
STOT RE 1	H372	Calculation method
Aquatic Chronic 3	H412	Calculation method

### Hazard statements listed in Chapter 2/3

H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H361	Suspected of damaging fertility or the unborn child.
H361d	Suspected of damaging the unborn child.
H372	Causes damage to organs through prolonged or repeated exposure.
H412	Harmful to aquatic life with long lasting effects.

### CLP categories listed in Chapter 2/3

Acute Tox. 4	Acute toxicity, Category 4
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic, Category 3
Asp. Tox. 1	Aspiration hazard, Category 1
Eye Irrit. 2	Eye irritation, Category 2
Flam. Liq. 2	Flammable liquid, Category 2
Flam. Liq. 3	Flammable liquid, Category 3
Repr. 2	Reproductive toxicity, Category 2
Skin Irrit. 2	Skin irritation, Category 2
Skin Sens. 1	Skin sensitization, Category 1
STOT RE 1	Specific target organ toxicity - repeated exposure, Category 1
STOT SE 3	Specific target organ toxicity - single exposure, Category 3

### Abbreviations

ATE: Acute Toxicity Estimates
CAS: Chemical Abstracts Service
cATpE: Converted acute toxicity point estimate
EAK: Europäischer Abfallkatalog
EINECS: European Inventory of Existing Commercial Chemical Substances
PBT: Persistent, Bioaccumulative and Toxic
vPvB: Very persistent and very bioaccumulative
VOC: Volatile Organic Compound

### Supplemental information

Relevant changes compared with the previous version of the safety data sheet are marked with: \*\*\*  
This information is based on our present state of knowledge. However, it should not constitute a guarantee for any specific product properties and shall not establish a legally valid relationship.

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\* **BÜFA®-Crystal-Clear-Gelcoat-S**

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# 72220200240

Version: 6 / WORLD

Master No. M-401

Print date: 18.03.2024

---