Identification of the Substance/Mixture and of the Company/Undertaking

Product Identifier

Product Name: Polyvinyl Acetate Copolymer
Article No.: 67160

Relevant identified Uses of the Substance or Mixture and Uses advised against

Identified uses:
Raw material for industrial purposes.
Adhesive, coating material, primer
Binding agent

Uses advised against:

Details of the Supplier of the Safety Data Sheet (Producer/Importer)

Company: Kremer Pigmente GmbH & Co. KG
Address: Hauptstr. 41-47, 88317 Aichstetten, Germany
Tel./Fax.: Tel +49 7565 914480, Fax +49 7565 1606
Internet: www.kremer-pigmente.de
EMail: info@kremer-pigmente.de
Importer: --

Emergency No.

Emergency No.: +49 7565 914480 (Mon-Fri 8:00 - 17:00)

Hazards Identification

Classification of the Substance or Mixture

Classification according to Regulation (EC) No. 1272/2008 (CLP/GHS)
Flammable liquids, hazard category 2
Eye irritation, hazard category 2
Specific Target Organ Toxicity (single exposure), hazard category 3
H225 Highly flammable liquid and vapour.
Cat.: 2
H319 Causes serious eye irritation.
Cat.: 2
H336 May cause drowsiness or dizziness.
Cat.: 3

Classification according to Directive No. 67/548/EC or No. 1999/45/EC
Flammable (F) R11 Highly flammable
Irritating (Xi) R36 Irritating to eyes.
R66 Repeated exposure may cause skin dryness or cracking.

Safety Phrases:

Possible Environmental Effects:

Label Elements

Classification according to Regulation
Material Safety Data Sheet
According to regulation (EC) No. 1907/2006 (REACH)

67160 Polyvinyl Acetate Copolymer


Hazard designation:

GHS02-2

GHS07

Signal word:

Danger

Hazard designation:

H225 Highly flammable liquid and vapour.
H319 Causes serious eye irritation.
H336 May cause drowsiness or dizziness.
EUH066 Repeated exposure may cause skin dryness or cracking.

Safety designation:

P210 Keep away from heat/ sparks/ open flames/ hot surfaces. No smoking.
P261 Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray.
P280 Wear protective gloves/ clothing/ eye/ face protection.
P304+P340 If inhaled: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses and continue rinsing.
P501 Dispose of contents/ container according to regional, national and international regulations.

Hazardous components for labelling: Ethyl acetate

2.3 Other Hazards

3. Composition/Information on Ingredients

3.1 Substance

3.2 Mixture

Chemical Characterization: Organic solution based on a copolymer of vinyl acetate.

Information on Components / Hazardous Ingredients:

Ethyl acetate (F,Xi; R11-36-66/67; H225-319-336); REACH Reg. No. 01-2119475103-46-xxxx < 38 % CAS-Nr: 141-78-6 EINECS-Nr: 205-500-4 EC-Nr: 607-022-00-5

Ethanol (F: R11; H225; 319); REACH Reg.-Nr. 01-2119457610-43 < 1 % CAS-Nr: 64-17-5 EINECS-Nr: 200-578-6 EC-Nr: 603-002-00-5

Vinyl acetate (F; Xn; R11-20-37-40; H225-332-335-351); REACH Reg. No. 01-2119471301-50-xxxx < 0.5 % CAS-Nr: 108-05-4 EINECS-Nr: 203-545-4

next page: 3
First Aid Measures

4.1. Description of the First Aid Measures

General information: Seek medical attention in case of complaints.

After inhalation: Supply fresh air and keep patient calm. Give artificial respiration in case breathing is not regular or if it has stopped. If breathing is difficult call a physician.

After skin contact: Remove contaminated clothing. Wash off immediately with plenty of water and soap.

After eye contact: Rinse open eyes with plenty of water for at least 15 minutes. Seek medical attention if irritation persists.

After ingestion: Rinse mouth thoroughly with plenty of water. Do not induce vomiting. Consult physician immediately. Never give anything by mouth to an unconscious person.

4.2. Most important Symptoms and Effects, both Acute and Delayed

Symptoms: Swallowing: may cause nausea. Inhalation: can cause dizziness. Prolonged or repeated contact can irritate eyes and skin.

Effects:

4.3. Indication of any Immediate Medical Attention and special Treatment needed

Treatment: First-aid measures must be specified together with the responsible physician for industrial medicine.

5. Fire-Fighting Measures

5.1. Extinguishing Media

Suitable extinguishing media: Foam, carbon dioxide (CO2), extinguishing powder, water spray jet.

Unsuitable extinguishing media: None known.

5.2. Special Hazards arising from the Substance or Mixture

Special hazards:
Fluid and vapors are highly flammable.
In case of fire: formation of carbon oxides and smoke.

5. 3. **Advice for Firefighters**

**Protective equipment:**

Wear self-contained respiratory protective device.

**Further information:**

Avoid contamination of sewage system, open water ways and ground water.
Contaminated extinguishing water and debris should be disposed of according to local regulations.
Cool exposed containers with water spray.
Do not inhale explosion and fire gases.

6. **Accidental Release Measures**

6. 1. **Personal Precautions, Protective Equipment and Emergency Procedures**

**Personal precautions:**

Wear appropriate protective equipment. Keep spectators away.
Provide adequate ventilation. Keep away from sources of ignition.

6. 2. **Environmental Precautions**

**Environmental precautions:**

Prevent contamination of soil, drains and surface waters.

6. 3. **Methods and Material for Containment and Cleaning Up**

**Methods and material:**

Contain with non-flammable absorbent material (e.g. sand, diatomaceous earth, vermiculite) and dispose accordingly.
This product and its container must be disposed as hazardous waste.

6. 4. **Reference to other Sections**

Protective clothing, see Section 8.

7. **Handling and Storage**

7. 1. **Precautions for Safe Handling**

**Instructions on safe handling:**

Provide adequate ventilation.
Avoid contact with eyes and skin.
Keep away from flames and sparks.

**Hygienic measures:**

Keep away from foodstuffs and drinks.

7. 2. **Conditions for Safe Storage, including any Incompatibilities**

**Storage conditions:**

Store in tightly sealed containers in a cool and well ventilated location.

**Requirements for storage areas and containers:**

Store the product in the original container.
Information on fire and explosion protection:

- Do not store together with oxidizing products.
- Keep away from sources of ignition - do not smoke.
- Do not store together with: acids and strong alkalis.

Storage class (VCI):

Further Information:
The product is slightly hazardous to water. Consider national regulations regarding handling and storage.

7.3. Specific End Use(s)

Further information:
The technical guidelines for the application of this product/mixture should be followed.

8. Exposure Controls/Personal Protection

8.1. Parameters to be Controlled

Parameters to be controlled (DE):

TRGS 900
Ethyl acetate (141-78-6): 3000 mg/m3, 800 ppm (STEL); 1500 mg/m3; 400 ppm (TWA)
Ethanol (64-17-5): 1920 mg/m3, 1000 ppm (STEL); 960 mg/m3, 500 ppm (TWA)
Vinyl acetate, CAS 108-05-4, EINECS No. 203-545-4

Parameters to be controlled:

Ethyl acetate (141-78-6): EH40 (UK): 1460 mg/m3, 400 ppm (STEL); 730 mg/m3, 200 ppm (TWA); VLEP/GWBB (BE): 1461 mg/m3, 400 ppm (TWA); VLEP (FR): 1400 mg/m3, 400 ppm (TWA)
Ethanol (64-17-5): EH40 (UK): 1920 mg/m3, 1000 ppm (TWA); VLEP/GWBB (BE): 1907 mg/m3, 1000 ppm (TWA); VLEP (FR): 9500 mg/m3, 5000 ppm (STEL); 1900 mg/m3, 1000 ppm (TWA);
MAC (NL): 1900 mg/m3 (STEL), 260 mg/m3 (TWA)
Vinyl acetate (108-05-4): IOELV (EU): 35.2 mg/m3, 10 ppm (STEL); 17.6 mg/m3, 5 ppm (TWA); TLV (USA, IT, GR): 35.2 mg/m3, 10 ppm (STEL); 17.6 mg/m3, 5 ppm (TWA); MAC (NL): 36 mg/m3 (STEL); 18 mg/m3 (TWA); VLEP (FR): 35.2 mg/m3, 10 ppm (STEL); 35.2 mg/m3, 10 ppm (STEL)

Derived No-Effect Level (DNEL):

Ethyl acetate (141-78-6):
1468 mg/m3 (worker, inhalation, short-term exposition - systemic and local effect)
63 mg/m3 (worker, skin contact, long-term exposition - systemic)
734 mg/m3 (worker, inhalation, long-term exposition - systemic and local effects)
734 mg/m3 (consumer, inhalation, long-term exposition - systemic and local effects)
37 mg/m3 (consumer, skin contact, long-term exposition - systemic)
367 mg/m3 (consumer, inhalation, long-term exposition - systemic and local effect)
Material Safety Data Sheet
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4.5 mg/m³ (consumer, swallowing, long-term exposition - systemic)

Ethanol (CAS 64-17-5):
1900 mg/m³ (worker, inhalation, short-term exposition - local effect)
343 mg/kg kg/d (worker, skin contact, long-term exposition - systemic)
950 mg/m³ (worker, inhalation, long-term exposition - systemic); (consumer, inhalation; short-term exposition - local effect)
206 mg/kg kg/d (consumer, skin contact, long-term exposition - systemic)
114 mg/kg (consumer, inhalation, long-term exposition - systemic)
87 mg/kg kg/d (consumer, swallowing, long-term exposition - systemic)

Vinyl acetate (108-05-4):
35.2 mg/m³ (worker, inhalation, short-term exposition - systemic and local effect)
0.42 mg/m³ (worker, skin contact, long-term exposition - systemic)
17.6 mg/m³ (worker, inhalation, long-term exposition - systemic and local effects)

Predicted No-Effect Concentration (PNEC):

Ethyl acetate:
Fresh water: 0.24 mg/l
Seawater: 0.024 mg/l
Fresh water sediment: 1.15 mg/kg
Seawater sediment: 0.115 mg/kg
Soil: 0.148 mg/kg
Sewage treatment system (STP): 650 mg/l
Intermittent release: 1.65 mg/l
Oral: 200 mg/kg

Ethanol (CAS 64-17-5):
Fresh water: 0.96 mg/l
Seawater: 0.79 mg/l
Fresh water sediment: 3.6 mg/kg
Seawater sediment: 2.9 mg/kg
Soil: 0.63 mg/kg dwt
Sewage treatment system (STP): 580 mg/l
Oral: 720 mg/kg
Intermittent release: 2.75 mg/l

Vinyl acetate:
Fresh water: 0.016 mg/l
Seawater: 0.0016 mg/l
Water: 0.126 mg/l
Fresh water sediment: 0.067 mg/kg
Seawater sediment: 0.0067 mg/kg
Soil: 0.0035 mg/kg
Sewage treatment system (STP): 6 mg/l

Additional Information:
8.2. Exposure Controls

Technical protective measures:

Ensure adequate ventilation, especially in confined areas.
Protect from electrostatic charging, this mixture contains an organic solvent.
Facilities storing or utilizing this material should be equipped with an eyewash and shower facility.

Personal Protection

General protective measures:

Keep away from foodstuffs and drinks. Do not eat, drink or smoke during work. Wash hands before breaks and at the end of work.
Avoid contact with skin, eyes and clothing.
Wash contaminated clothes before reuse.

Respiratory protection:

Required in case of insufficient ventilation.
Respiratory protection with steam filter (EN 141).

Hand protection:

Protective gloves (EN 374)
Protective gloves should be changed regularly, especially after intensive contact with the product.

Protective glove material:

Butyl rubber (480 min; 0.5 mm).

Eye protection:

Safety glasses with protective shields (EN 166).

Body protection:

Environmental precautions:

Prevent contamination of open water ways and sewage system.
Avoid contamination of ground water.

9. Physical and Chemical Properties

9.1. Information on Basic Physical and Chemical Properties

Form: highly viscous liquid
Color: colorless
Odor: ester-like
Odor threshold: 0.006-0.686 µm (Ethyl acetate)

pH-Value: not determined

Melting temperature: not determined

Boiling temperature: 73.5°C
Flash point: -10°C

Evaporation rate: 4.5 (Ethyl acetate)
### Flammability (solid, gas):

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Highly inflammable</td>
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</table>

### Upper explosion limit:

11.5 Vol.% (Ethyl acetate)

### Lower explosion limit:

2.2 Vol.% (Ethyl acetate)

### Vapor pressure:

98.3 hPa (20°C; Ethyl acetate)

### Vapor density:

No information available.

### Density:

not determined

### Solubility in water:

insoluble (20°C)

### Coefficient of variation (n-Octanol/Water):

0.68 logPow (Ethyl acetate)

### Auto-ignition temperature:

not applicable

### Decomposition temperature:

not determined

### Viscosity, dynamic:

9000 mPa.s (20°C)

### Explosive properties:

not applicable

### Oxidizing properties:

no information available

### Bulk density:

No data available.

#### Further Information

### Solubility in solvents:

<table>
<thead>
<tr>
<th>Solvent</th>
<th>Solubility</th>
</tr>
</thead>
<tbody>
<tr>
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</tbody>
</table>

### Viscosity, kinematic

### Burning class:

### Solvent content:

### Solid content:

### Particle size:

No data available.

#### Other information:

### Stability and Reactivity

#### Reactivity

No decomposition if used according to specifications.

#### Chemical Stability

Stable if used according to specifications.

#### Possibility of Hazardous Reactions

Reacts with acids, bases and oxidizing agents.
10.4. Conditions to Avoid

Conditions to avoid:

- Avoid contact with heat, sparks and open fire.
- Protect from frost.

10.5. Incompatible Materials

Strong acids, bases and oxidizing agents.

10.6. Hazardous Decomposition Products

Risk of ignition.
In case of fire: formation of toxic decomposition products.
Carbon monoxide and dioxide, fumes and irritant gases.

11. Toxicological Information

11.1. Information on Toxicological Effects

Acute Toxicity

LD₅₀, oral:
- Ethyl acetate (141-78-6): 4934 mg/kg (rabbit)
- Ethanol (64-17-5): 10470 mg/kg (rat; OECD 401)
- Vinyl acetate (108-05-4): 3500 mg/kg (rat)

LD₅₀, dermal:
- Ethyl acetate (141-78-6): 20000 mg/kg (rabbit)
- Vinyl acetate (108-05-4): 7440 mg/kg (rabbit)

LC₅₀, inhalation:
- Ethyl acetate (141-78-6): > 22.5 mg/kg (rat)
- Ethanol (64-17-5): 117 mg/kg (rat; OECD 403)
- Vinyl acetate (108-05-4): 15.8 mg/kg (4h, rat)

Primary effects

Irritant effect on skin:
- Ethyl acetate (141-78-6): no skin irritation.
- Ethanol (64-17-5): no skin irritation (OECD 404)
- Vinyl acetate (108-05-4): no skin irritation (OECD 404)

Irritant effect on eyes:
- Ethyl acetate (141-78-6): may irritate eyes.
- Ethanol (64-17-5): can irritate eyes (OECD 405)
- Vinyl acetate (108-05-4): no irritant effect

Inhalation:
No information available.

Ingestion:
No information available

Sensitization:
- Ethyl acetate (141-78-6): not sensitizing (guinea pig; OECD 406).
- Ethanol (64-17-5): not sensitizing (OECD 429)
Vinyl acetate (108-05-4): not sensitizing

Mutagenicity:

Ethyl acetate (141-78-6): In vivo genetic-toxicity: micronucleus negative (hamster); In vitro genetic-toxicity: Ames-Test negative (OECD 471)
Ethanol (64-17-5): In vivo genetic-toxicity: no mutagenic effects (OECD 476); In vitro genetic-toxicity: no mutagenic effects (mouse, OECD 478)

Reproductive toxicity:

Ethyl acetate (141-78-6): no negative effects
Ethanol (64-17-5): The classification criteria are not met (mouse; OECD 416).
Vinyl acetate (108-05-4): no negative effects

Cancerogenity:

Ethyl acetate (141-78-6): The classification criteria are not met.
Ethanol (64-17-5): The classification criteria are not met.
Vinyl acetate (108-05-4): Can probably cause cancer (oral, rat)

Teratogenicity:

Vinyl acetate (108-05-4): The classification criteria are not met.

Specific target organ toxicity (STOT):

Ethyl acetate (141-78-6): Single exposure: may cause drowsiness or dizziness.

Additional toxicological information:

12. Ecological Information

12.1. Aquatic Toxicity

Fish toxicity:

Ethyl acetate: LC50: 220 mg/l (96h; Pimephales promelas); NOEC: < 9.65 mg/l
Ethanol: LC50: 14.2 mg/l (96h; Pimephales promelas)
Vinyl acetate: NOEC: 0.16 mg/l (Pimephales promelas)

Daphnia toxicity:

Ethyl acetate: EC50: 165 mg/l (48h; Daphnia magna); Chronic: 2.4 mg/l
Ethanol: EC50: 5012 mg/l (48h; Daphnia magna)
Vinyl acetate: EC50: 12.6 mg/l (48h; Daphnia magna)

Bacteria toxicity:

Vinyl acetate: 6 mg/l (16h; Pseudomonas putida)

Algae toxicity:

Ethyl acetate: EC50: 5600 mg/l (48h, Scenedesmus subspicatus)
Ethanol: EC50: 675 mg/l (72h, Chlorella vulgaris)
Vinyl acetate: EC50: 12.7 mg/l (72h, Pseudokirchneriella)
According to regulation (EC) No. 1907/2006 (REACH)

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Persistency and Degradability
Ethyl acetate: readily biodegradable
Ethanol: readily biodegradable (84 %, 20d).
Vinyl acetate: readily biodegradable

Bioaccumulation
Ethyl acetate: no bioaccumulation
Ethanol: log Kow -0.3, BCF 0.66. No bioaccumulation.
Vinyl acetate: no bioaccumulation

Mobility
Ethyl acetate: not expected to adsorb on soil.
Ethanol: the product is mobile in aqueous environment. Not expected to adsorb on soil.
Vinyl acetate: not expected to adsorb on soil.

Results of PBT- und vPvP Assessment
The contents of the preparation do not comply with the criteria for the classification as PBT or vPvB.

Other Adverse Effects
Water hazard class:
1 (German Regulation) (Assessment by list): slightly hazardous.

Behaviour in sewage systems:
Further ecological effects:
Not considered to be environmentally harmful.
No special effects or hazards known.

AOX Value:

Disposal Considerations
Waste Treatment Methods
Product:
Dispose of according to official national and local regulations.

European Waste Code (EWC):

Uncleaned packaging:
Packaging may be disposed of in the same manner as the product.

Transport Information
UN Number
ADR, IMDG, IATA 1173

UN Proper Shipping Name
ADR/RID: ETHYLACETAT
IMDG/IATA: ETHYL ACETATE

Transport Hazard Classes
ADR Class: 3
Material Safety Data Sheet
According to regulation (EC) No. 1907/2006 (REACH)

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Hazard no.: 3
Classification code: F1
Tunnel no.: D/E
IMDG Class (sea): 3
Hazard no.: 3
EmS No.: F-E, S-D
IATA Class: 3
Hazard no.: 3

14.4. Packaging Group
ADR/RID: II
IMDG: II
IATA: II

14.5. Environmental Hazards
None

14.6. Special Precautions for User
Dangerous goods

14.7. Transportation in Bulk according to Annex II of MARPOL 73/78 and IBC-Code
not applicable

14.8. Further Information

15. Regulatory Information
15.1. Safety, Health and Environmental Regulations/Legislation specific for the Substance or Mixture

Water hazard class:
1, slightly hazardous for water (German Regulation, Assessment by list)

Local regulations on chemical accidents:

Employment restrictions:

Restriction and prohibition of application:

Technical instructions on air quality:

15.2. Chemical Safety Assessment
This product contains substances which have been pre-registered according to the REACH Regulation (EC) 1907/2006.

15.3. Further Information

16. Other Information
This product should be stored, handled and used in accordance with good hygiene practices and in conformity with any legal regulations. This information contained herein is based on the present state of knowledge and is intended to describe our product from the point of view of safety requirements. It should be therefore not be construed as guaranteeing specific properties.