

## Thinfilm 450 (450)

## Thinfilm 453(453)

### Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Revision Date: 08/30/2014

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Version: 1.0

## SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY

### 1.1. Product Identifier

**Product Form:** Mixture

**Product Name:** Thinfilm 450 (450)  
Thinfilm 453(453)

### 1.2. Intended Use of the Product

**Use of the substance/mixture:** Curing compound

### 1.3. Name, Address, and Telephone of the Responsible Party

#### Company

Kaufman Products, Inc.  
3811 Curtis Avenue  
Baltimore, MD 21226-1131  
410-354-8600

<http://www.kaufmanproducts.net/>

### 1.4. Emergency Telephone Number

**Emergency Number** : 800-424-9300

For Chemical Emergency, Spill, Leak, Fire, Exposure, or Accident, call CHEMTREC – Day or Night

## SECTION 2: HAZARDS IDENTIFICATION

### 2.1. Classification of the Substance or Mixture

#### Classification (GHS-US)

Skin Sens. 1	H317
STOT SE 1	H370
Aquatic Acute 2	H401
Aquatic Chronic 2	H411

### 2.2. Label Elements

#### GHS-US Labeling

#### Hazard Pictograms (GHS-US)

:



GHS07



GHS08



GHS09

#### Signal Word (GHS-US)

: Danger

#### Hazard Statements (GHS-US)

: H317 - May cause an allergic skin reaction  
H370 - Causes damage to organs  
H401 - Toxic to aquatic life  
H411 - Toxic to aquatic life with long lasting effects

#### Precautionary Statements (GHS-US)

: P201 - Obtain special instructions before use  
P202 - Do not handle until all safety precautions have been read and understood  
P260 - Do not breathe mist, spray, vapors  
P261 - Avoid breathing mist, spray, vapors

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P264 - Wash exposed areas. thoroughly after handling  
 P270 - Do not eat, drink or smoke when using this product  
 P272 - Contaminated work clothing should not be allowed out of the workplace  
 P273 - Avoid release to the environment  
 P280 - Wear eye protection, protective clothing, protective gloves  
 P302+P352 - IF ON SKIN: Wash with plenty of soap and water  
 P308+P313 - If exposed or concerned: Get medical advice/attention  
 P321 - Specific treatment (see Section 4)  
 P333+P313 - If skin irritation or rash occurs: Get medical advice/attention  
 P362+P364 - Take off contaminated clothing and wash it before reuse  
 P391 - Collect spillage  
 P405 - Store locked up  
 P501 - Dispose of contents/container to local, regional, national, and international regulations

### 2.3. Other Hazards

No additional information available

### 2.4. Unknown Acute Toxicity (GHS-US)

No data available

## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

### 3.1. Substance

Not applicable

Full text of H-phrases: see section 16

### 3.2. Mixture

Name	Product identifier	%	Classification (GHS-US)
Water	(CAS No) 7732-18-5	70-80	Not classified
Hydrocarbon Resin	(CAS No) 68131-87-3	10-25	Acute Tox. 4 (Oral), H302 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
Solvent naphtha, petroleum, medium aliphatic	(CAS No) 64742-88-7	3-7	Flam. Liq. 3, H226 Skin Irrit. 2, H315 STOT SE 3, H336 Asp. Tox. 1, H304 Aquatic Acute 3, H402 Aquatic Chronic 2, H411
Titanium Dioxide	(CAS No) 13463-67-7	2-3	Comb. Dust H232

Full text of H-phrases: see section 16

## SECTION 4: FIRST AID MEASURES

### 4.1. Description of First Aid Measures

**First-aid Measures General:** Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible). IF exposed or concerned: Get medical advice/attention.

**First-aid Measures After Inhalation:** When symptoms occur: go into open air and ventilate suspected area.

**First-aid Measures After Skin Contact:** Remove contaminated clothing. Immediately flush skin with plenty of water for at least 60 minutes. Get medical advice/attention. Wash contaminated clothing before reuse.

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**First-aid Measures After Eye Contact:** Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.

**First-aid Measures After Ingestion:** Rinse mouth. Do NOT induce vomiting.

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

**Symptoms/Injuries:** May cause an allergic skin reaction.

**Symptoms/Injuries After Inhalation:** Inhalation of fumes or vapours may cause respiratory irritation.

**Symptoms/Injuries After Skin Contact:** May cause an allergic skin reaction.

**Symptoms/Injuries After Eye Contact:** May cause eye irritation.

**Symptoms/Injuries After Ingestion:** Ingestion is likely to be harmful or have adverse effects.

**Chronic Symptoms:** May cause cancer. Causes damage to organs through prolonged or repeated exposure.

#### 4.3. Indication of Any Immediate Medical Attention and Special Treatment Needed

If medical advice is needed, have product container or label at hand.

### SECTION 5: FIREFIGHTING MEASURES

#### 5.1. Extinguishing Media

**Suitable Extinguishing Media:** Alcohol foam, carbon dioxide, dry chemical. Use extinguishing media appropriate for surrounding fire.

**Unsuitable Extinguishing Media:** Do not use water jet. Use of heavy stream of water may spread fire.

#### 5.2. Special Hazards Arising From the Substance or Mixture

**Fire Hazard:** Not flammable.

**Explosion Hazard:** Product is not explosive.

**Reactivity:** Product is stable.

#### 5.3. Advice for Firefighters

**Firefighting Instructions:** Exercise caution when fighting any chemical fire.

**Protection During Firefighting:** Do not enter fire area without proper protective equipment, including respiratory protection.

### SECTION 6: ACCIDENTAL RELEASE MEASURES

#### 6.1. Personal Precautions, Protective Equipment and Emergency Procedures

**General Measures:** Keep away from heat/sparks/open flames/hot surfaces. – No smoking. Avoid all eyes and skin contact and do not breathe vapor and mist. Do not allow product to spread into the environment.

##### 6.1.1. For Non-emergency Personnel

**Protective Equipment:** Use appropriate personal protection equipment (PPE).

**Emergency Procedures:** Evacuate unnecessary personnel.

##### 6.1.2. For Emergency Responders

**Protective Equipment:** Equip cleanup crew with proper protection.

**Emergency Procedures:** Ventilate area.

#### 6.2. Environmental Precautions

Prevent entry to sewers and public waters. Avoid release to the environment.

#### 6.3. Methods and Material for Containment and Cleaning Up

**For Containment:** Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.

**Methods for Cleaning Up:** Collect spillage. Clear up spills immediately and dispose of waste safely.

#### 6.4. Reference to Other Sections

See heading 8, Exposure Controls and Personal Protection.

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## SECTION 7: HANDLING AND STORAGE

### 7.1. Precautions for Safe Handling

**Precautions for Safe Handling:** Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat/sparks/open flames/hot surfaces. – No smoking. Avoid breathing vapours, mist, spray.

**Hygiene Measures:** Handle in accordance with good industrial hygiene and safety procedures. Wash hands and other exposed areas with mild soap and water before eating, drinking, or smoking and again when leaving work. Do not eat, drink or smoke when using this product. Wash hands and forearms thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse.

### 7.2. Conditions for Safe Storage, Including Any Incompatibilities

**Storage Conditions:** Store in a dry, cool and well-ventilated place. Keep container closed when not in use. Keep container tightly closed.

**Incompatible Products:** Strong acids. Strong bases. Strong oxidizers.

**Incompatible Materials:** Heat sources.

**Storage Area:** Store locked up.

### 7.3. Specific End Use(s) Pigmented Curing compound

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1. Control Parameters

Hydrocarbon Resin 68131-87-3		
USA ACGIH	ACGIH TWA (ppm)	10 ppm
USA ACGIH	ACGIH STEL (ppm)	15 ppm
USA NIOSH	NIOSH REL (TWA) (mg/m <sup>3</sup> )	50 mg/m <sup>3</sup>
USA NIOSH	NIOSH REL (TWA) (ppm)	10 ppm
USA NIOSH	NIOSH REL (STEL) (mg/m <sup>3</sup> )	75 mg/m <sup>3</sup>
USA NIOSH	NIOSH REL (STEL) (ppm)	15 ppm
USA IDLH	US IDLH (ppm)	250 ppm
USA OSHA	OSHA PEL (TWA) (mg/m <sup>3</sup> )	50 mg/m <sup>3</sup>
USA OSHA	OSHA PEL (TWA) (ppm)	10 ppm

### 8.2. Exposure Controls

#### Appropriate Engineering Controls

: Ensure all national/local regulations are observed.

#### Personal Protective Equipment

: Gloves. Protective clothing. In case of splash hazard: safety glasses.



#### Materials for Protective Clothing

: Chemically resistant materials and fabrics.

#### Hand Protection

: Wear chemically resistant protective gloves.

#### Eye Protection

: In case of splash hazard: chemical goggles or safety glasses.

#### Skin and Body Protection

: Wear suitable protective clothing.

#### Respiratory Protection

: If exposure limits are exceeded or irritation is experienced, NIOSH approved respiratory protection should be worn.

#### Other Information

: When using, do not eat, drink or smoke.

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## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

### 9.1. Information on Basic Physical and Chemical Properties

Physical State	: Liquid
Appearance	: Milky white.
Odor	: Distinctive.
Odor Threshold	: No data available
pH	: No data available
Relative Evaporation Rate (butylacetate=1)	: No data available
Relative evaporation rate (ether=1)	: Slower than ether
Melting Point	: No data available
Freezing Point	: No data available
Boiling Point	: 100 °C (212 °F)
Flash Point	: No data available
Auto-ignition Temperature	: No data available
Decomposition Temperature	: No data available
Flammability (solid, gas)	: No data available
Vapor Pressure	: No data available
Relative Vapor Density at 20 °C	: Heavier than air
Relative Density	: No data available
Specific Gravity	: 1.02
Solubility	: Water: Partial. Dilution will reduce stability
Log Pow	: No data available
Log Kow	: No data available
Viscosity, Kinematic	: No data available
Viscosity, Dynamic	: No data available
Explosive Properties	: No data available
Oxidizing Properties	: No data available
Explosive Limits	: Not applicable

### 9.2. Other Information

VOC content : < 325 g/l

## SECTION 10: STABILITY AND REACTIVITY

- 10.1 **Reactivity:** Product is stable.
- 10.2 **Chemical Stability:** Product is stable.
- 10.3 **Possibility of Hazardous Reactions:** Hazardous polymerization will not occur.
- 10.4 **Conditions to Avoid:** Direct sunlight. Extremely high or low temperatures. Open flame. Overheating. Heat. Sparks.
- 10.5 **Incompatible Materials:** Strong acids. Strong bases. Strong oxidizers.
- 10.6 **Hazardous Decomposition Products:** Carbon oxides (CO, CO<sub>2</sub>).

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## SECTION 11: TOXICOLOGICAL INFORMATION

### 11.1. Information On Toxicological Effects

Acute Toxicity: Not classified

Solvent naphtha, petroleum, medium aliphatic (64742-88-7)	
LD50 Oral Rat	> 5000 mg/kg
LD50 Dermal Rabbit	3000 mg/kg
LC50 Inhalation Rat (mg/l)	> 5.28 mg/l/4h

Water (7732-18-5)	
LD50 Oral Rat	> 90000 mg/kg

Titanium dioxide (13463-67-7)	
LD50 Oral Rat	>10000 mg/kg

Skin Corrosion/Irritation: Not classified

Serious Eye Damage/Irritation: Not classified

Respiratory or Skin Sensitization: May cause an allergic skin reaction.

Germ Cell Mutagenicity: Not classified

Carcinogenicity: Suspected of causing cancer.

Solvent naphtha, petroleum, medium aliphatic (64742-88-7)	
National Toxicity Program (NTP) Status	Evidence of Carcinogenicity.

Reproductive Toxicity: Not classified

Specific Target Organ Toxicity (Single Exposure): Causes damage to organs.

Specific Target Organ Toxicity (Repeated Exposure): Not classified

Aspiration Hazard: Not classified

Symptoms/Injuries After Inhalation: Inhalation of fumes or vapours may cause respiratory irritation.

Symptoms/Injuries After Skin Contact: May cause an allergic skin reaction.

Symptoms/Injuries After Eye Contact: May cause eye irritation.

Symptoms/Injuries After Ingestion: Ingestion is likely to be harmful or have adverse effects.

Chronic Symptoms: May cause cancer. Causes damage to organs through prolonged or repeated exposure.

## SECTION 12: ECOLOGICAL INFORMATION

### 12.1. Toxicity

Ecology - General : Toxic to aquatic life with long lasting effects.

Solvent naphtha, petroleum, medium aliphatic (64742-88-7)	
LC50 Fish 1	800 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static])
EC50 Daphnia 1	> 100 mg/l (Exposure time: 48 h - Species: Daphnia magna)
EC50 Other Aquatic Organisms 1	450 mg/l (Exposure time: 96 h - Species: Pseudokirchneriella subcapitata)

### 12.2. Persistence and Degradability

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Persistence and Degradability	Not established. May cause long-term adverse effects in the environment.

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#### 12.3. Bioaccumulative Potential

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Bioaccumulative Potential	Not established.

Solvent naphtha, petroleum, medium aliphatic (64742-88-7)	
BCF fish 1	(bioaccumulation expected)

12.4. **Mobility in Soil** No additional information available

12.5. **Other Adverse Effects**

**Other Information** : Avoid release to the environment.

### SECTION 13: DISPOSAL CONSIDERATIONS

13.1. **Waste treatment methods**

**Waste Disposal Recommendations:** Dispose of waste material in accordance with all local, regional, national, and international regulations.

**Ecology – Waste Materials:** This material is hazardous to the aquatic environment. Keep out of sewers and waterways.

### SECTION 14: TRANSPORT INFORMATION

14.1 **In Accordance with DOT** Not regulated for transport

14.2 **In Accordance with IMDG** Not regulated for transport

14.3 **In Accordance with IATA** Not regulated for transport

### SECTION 15: REGULATORY INFORMATION

15.1 **US Federal Regulations**

Solvent naphtha, petroleum, medium aliphatic (64742-88-7)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	

Water (7732-18-5)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	

15.2 **US State Regulations**

Solvent naphtha, petroleum, medium aliphatic (64742-88-7)	
U.S. - New Jersey - Right to Know Hazardous Substance List	
U.S. - New Jersey - Special Health Hazards Substances List	
U.S. - Texas - Effects Screening Levels - Long Term	
U.S. - Texas - Effects Screening Levels - Short Term	

### SECTION 16: OTHER INFORMATION

**Other Information** : This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200.

**GHS Full Text Phrases:**

Acute Tox. 3 (Dermal)	Acute toxicity (dermal) Category 3
Acute Tox. 3 (Inhalation:vapour)	Acute toxicity (inhalation:vapour) Category 3
Acute Tox. 3 (Oral)	Acute toxicity (oral) Category 3

# K A U F M A N

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Acute Tox. 4 (Dermal)	Acute toxicity (dermal) Category 4
Acute Tox. 4 (Inhalation:vapour)	Acute toxicity (inhalation:vapour) Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral) Category 4
Aquatic Acute 1	Hazardous to the aquatic environment - Acute Hazard Category 1
Aquatic Acute 2	Hazardous to the aquatic environment - Acute Hazard Category 2
Aquatic Acute 3	Hazardous to the aquatic environment - Acute Hazard Category 3
Aquatic Chronic 1	Hazardous to the aquatic environment - Chronic Hazard Category 1
Aquatic Chronic 2	Hazardous to the aquatic environment - Chronic Hazard Category 2
Asp. Tox. 1	Aspiration hazard Category 1
Flam. Liq. 2	Flammable liquids Category 2
Flam. Liq. 3	Flammable liquids Category 3
Skin Corr. 1B	Skin corrosion/irritation Category 1B
Skin Irrit. 2	Skin corrosion/irritation Category 2
Skin Sens. 1	Skin sensitization Category 1
STOT SE 1	Specific target organ toxicity (single exposure) Category 1
STOT SE 3	Specific target organ toxicity (single exposure) Category 3
H225	Highly flammable liquid and vapor
H226	Flammable liquid and vapor
H301	Toxic if swallowed
H302	Harmful if swallowed
H304	May be fatal if swallowed and enters airways
H311	Toxic in contact with skin
H312	Harmful in contact with skin
H314	Causes severe skin burns and eye damage
H315	Causes skin irritation
H317	May cause an allergic skin reaction
H331	Toxic if inhaled
H332	Harmful if inhaled
H336	May cause drowsiness or dizziness
H351	Suspected of causing cancer
H370	Causes damage to organs
H400	Very toxic to aquatic life
H401	Toxic to aquatic life
H402	Harmful to aquatic life
H410	Very toxic to aquatic life with long lasting effects
H411	Toxic to aquatic life with long lasting effects

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