

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

1.1. Product identifier

Product form : Mixture
Trade name : Defy Deck Stain for Hardwoods

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

Use of the substance/mixture : Staining Exterior Wood

1.3. Details of the supplier of the safety data sheet

SaverSystems, Inc.
800 S. 7th Street
Richmond, 47374 - U.S.A.
T (765) 966-5084

1.4. Emergency telephone number

Chemtel : 1 (800) 255-3924 24/7

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GHS-US classification

Skin Sens. 1 H317

2.2. Label elements

GHS-US labelling

Hazard pictograms (GHS-US) :



GHS07

Signal word (GHS-US) : Warning
Hazard statements (GHS-US) : H317 - May cause an allergic skin reaction
Precautionary statements (GHS-US) : P261 - Avoid breathing fume, dust, mist, spray, vapours
P280 - Wear eye protection, protective clothing, protective gloves
P302+P352 - IF ON SKIN: Wash with plenty of soap and water
P333+P313 - If skin irritation or occurs: Get medical advice/attention
P362+P364 - Remove contaminated clothing and wash it before reuse
P501 - Dispose of contents/container to comply with applicable local, national and international regulation.

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	%	GHS-US classification
Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate	(CAS No) 41556-26-7	< 0.4	Flam. Liq. 4, H227 Skin Sens. 1, H317
3-Iodo-2-propynyl butylcarbamate	(CAS No) 55406-53-6	0.1 - 0.3	Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Inhalation), H332 Eye Dam. 1, H318 Skin Sens. 1, H317

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Name	Product identifier	%	GHS-US classification
Decanedioic acid, methyl 1,2,2,6,6-pentamethyl-4-piperidinyl ester	(CAS No) 82919-37-7	< 0.2	Skin Sens. 1, H317
Ammonium hydroxide	(CAS No) 1336-21-6	< 0.04	Acute Tox. 4 (Oral), H302 Skin Corr. 1B, H314 Eye Dam. 1, H318 STOT SE 3, H335

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).
- First-aid measures after inhalation : In all cases of doubt, or when symptoms persist, seek medical advice. Move the affected person away from the contaminated area and into the fresh air.
- First-aid measures after skin contact : Remove/Take off immediately all contaminated clothing. Wash off immediately with soap and plenty of water. Obtain medical attention if irritation persists.
- First-aid measures after eye contact : Immediately flush eyes thoroughly with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Seek medical attention immediately.
- First-aid measures after ingestion : If swallowed, rinse mouth with water (only if the person is conscious). Do NOT induce vomiting unless directed to do so by a physician. If the person is fully conscious, make him/her drink water. Never give an unconscious person anything to drink. Immediately call a POISON CENTER or doctor/physician.

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

- Symptoms/injuries after inhalation : May cause an allergic skin reaction. In case of repeated or prolonged exposure : Inhalation of vapours or spray/mists. May be irritating to the mucous membranes and to the respiratory system.
- Symptoms/injuries after skin contact : Repeated or prolonged skin contact may cause dermatitis and defatting. Repeated exposure to this material can result in absorption through skin causing significant health hazard.
- Symptoms/injuries after eye contact : In fine dispersion/spraying/misting: Causes serious eye irritation.
- Symptoms/injuries after ingestion : May cause damage to tissue and internal organs.

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

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

- Suitable extinguishing media : Use media as appropriate for surrounding material
Foam. Dry powder. Carbon dioxide. Water spray. Sand.

5.2. Special hazards arising from the substance or mixture

No additional information available

5.3. Advice for firefighters

- Firefighting instructions : Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.
- Protective equipment for firefighters : Do not enter fire area without proper protective equipment, including respiratory protection. In case of fire: Wear self-contained breathing apparatus.
- Other information : Hazardous decomposition products may be released during prolonged heating like smokes, carbon monoxide and dioxide, nitrogen oxides (NO_x). Toxic gases and vapors may be released in a fire.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

- General measures : Avoid inhalation of vapour and spray mist. Avoid skin and eye contact. Ensure adequate ventilation.

6.1.1. For non-emergency personnel

- Protective equipment : Use personal protective equipment as required. Use suitable eye protection and gloves. For further information refer to section 8 : Exposure-controls/personal protection.
- Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

- Protective equipment : Equip cleanup crew with proper protection.

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Emergency procedures : Ventilate area.

6.2. Environmental precautions

Prevent entry to sewers and public waters.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Dispose of contents/container to comply with applicable local, national and international regulations. Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. Collect all waste in suitable and labelled containers and dispose according to local legislation. For small spills, absorb or cover with dry earth, sand, or other inert non-combustible absorbent material and place into waste containers for later disposal. Ensure all national/local regulations are observed. Consult the appropriate authorities about waste disposal.

6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed : Surface will become slippery when wet or damp.
Precautions for safe handling : Keep out of reach of children. Do not breathe Wet misty spray . Wear goggles if splashing or spraying is anticipated. Wear suitable gloves. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapour.
Hygiene measures : Do not eat, drink or smoke when using this product. Avoid contact with skin and eyes. Wash contaminated clothing prior to re-use. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Use good personal hygiene practices. Separate working clothes from town clothes. Launder separately.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Comply with applicable regulations. A washing facility/water for eye and skin cleaning purposes should be present. Ensure adequate ventilation.
Storage conditions : Keep locked up and out of reach of children. Keep only in the original container in a cool well ventilated place. Store away from freezing (avoid freezing during storage). Keep away from sources of heat (e.g. hot surfaces), sparks and open flames. Keep container closed when not in use. Keep away from food and drink.
Incompatible materials : Strong acids, bases. Oxidizing agents.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No additional information available

8.2. Exposure controls

Appropriate engineering controls : Ensure adequate ventilation. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.
Personal protective equipment : Gloves. Protective clothing. Protective goggles. Avoid all unnecessary exposure. For certain operations, additional Personal Protection Equipment (PPE) may be required.



Hand protection : Protective water resistant gloves.
Eye protection : Wear chemical splash goggle.
Skin and body protection : Wear suitable protective clothing.
Respiratory protection : Work in well-ventilated zones or use proper respiratory protection. In case of insufficient ventilation, wear suitable respiratory equipment.
Environmental exposure controls : Avoid discharge to the environment.
Other information : Do not eat, drink or smoke during use.

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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.
Colour	: White.
Odour	: Slight chemical odor.
Odour threshold	: No data available
pH	: 8
Relative evaporation rate (butyl acetate=1)	: No data available
Melting point	: No data available
Freezing point	: < 0 °C (<32 °F)
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
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Density	: 1.006 g/cm ³ (8.4 lb/gal)
Solubility	: Water: Soluble
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
Oxidising properties	: No data available
Explosive limits	: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

Not established.

10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

10.4. Conditions to avoid

No additional information available

10.5. Incompatible materials

Strong oxidizers. Strong acids. Strong bases.

10.6. Hazardous decomposition products

Hazardous decomposition products may be released during prolonged heating like smokes, carbon monoxide and dioxide, NO_x. Emits toxic fumes under fire conditions.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified
(Based on available data, the classification criteria are not met)

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Ammonium hydroxide (1336-21-6)	
LD50 oral rat	350 mg/kg
ATE (oral)	350.000 mg/kg bodyweight

3-Iodo-2-propynyl butylcarbamate (55406-53-6)	
LD50 oral rat	1100 mg/kg
ATE (oral)	1100.000 mg/kg bodyweight
ATE (gases)	4500.000 ppmv/4h
ATE (vapours)	11.000 mg/l/4h
ATE (dust,mist)	1.500 mg/l/4h

Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate (41556-26-7)	
LD50 oral rat	2615 mg/kg

Skin corrosion/irritation	: Not classified (Based on available data, the classification criteria are not met) pH: 8
Serious eye damage/irritation	: Not classified (Based on available data, the classification criteria are not met) pH: 8
Respiratory or skin sensitisation	: May cause an allergic skin reaction.
Germ cell mutagenicity	: Not classified (Based on available data, the classification criteria are not met)
Carcinogenicity	: Not classified (Based on available data, the classification criteria are not met)
Reproductive toxicity	: Not classified (Based on available data, the classification criteria are not met)
Specific target organ toxicity (single exposure)	: Not classified (Based on available data, the classification criteria are not met)
Specific target organ toxicity (repeated exposure)	: Not classified (Based on available data, the classification criteria are not met)
Aspiration hazard	: Not classified (Based on available data, the classification criteria are not met)
Potential Adverse human health effects and symptoms	: Based on available data, the classification criteria are not met.
Symptoms/injuries after inhalation	: May cause an allergic skin reaction. In case of repeated or prolonged exposure : Inhalation of vapours or spray/mists. May be irritating to the mucous membranes and to the respiratory system.
Symptoms/injuries after skin contact	: Repeated or prolonged skin contact may cause dermatitis and defatting. Repeated exposure to this material can result in absorption through skin causing significant health hazard.
Symptoms/injuries after eye contact	: In fine dispersion/spraying/misting: Causes serious eye irritation.
Symptoms/injuries after ingestion	: May cause damage to tissue and internal organs.

SECTION 12: Ecological information

12.1. Toxicity

Ammonium hydroxide (1336-21-6)	
LC50 fishes 1	8.2 mg/l (Exposure time: 96 h - Species: Pimephales promelas)
EC50 Daphnia 1	0.66 mg/l (Exposure time: 48 h - Species: water flea)
EC50 Daphnia 2	0.66 mg/l (Exposure time: 48 h - Species: Daphnia pulex)

3-Iodo-2-propynyl butylcarbamate (55406-53-6)	
LC50 fishes 1	0.14 - 0.32 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [flow-through])
LC50 fish 2	0.049 - 0.079 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [flow-through])

Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate (41556-26-7)	
LC50 fishes 1	0.97 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [static])

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12.2. Persistence and degradability

Defy Deck Stain for Hardwoods

Persistence and degradability	Not established.
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12.3. Bioaccumulative potential

Defy Deck Stain for Hardwoods

Bioaccumulative potential	Not established.
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Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate (41556-26-7)

Log Pow	0.37 (at 25 °C)
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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 in a safe manner in accordance with local/national regulations. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose containers to flames, sparks, heat, or other potential ignition sources. Do not re-use empty containers. It is the responsibility of the user to determine if disposal material is hazardous according to federal, state and local regulations. Ensure all national/local regulations are observed.

Ecology - waste materials : Avoid release to the environment.

SECTION 14: Transport information

In accordance with DOT

No dangerous good in sense of transport regulations

Additional information

Other information : No supplementary information available.

ADR

Transport document description : No additional information available

Transport by sea

No additional information available

Air transport

No additional information available

SECTION 15: Regulatory information

15.1. US Federal regulations

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RQ (Reportable quantity, section 304 of EPA's List of Lists) :	2500000 lb
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Ammonium hydroxide (1336-21-6)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

RQ (Reportable quantity, section 304 of EPA's List of Lists) :	1000 lb
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3-Iodo-2-propynyl butylcarbamate (55406-53-6)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

Listed on SARA Section 313 (Specific toxic chemical listings)

SARA Section 313 - Emission Reporting	1.0 %
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Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate (41556-26-7)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

Decanedioic acid, methyl 1,2,2,6,6-pentamethyl-4-piperidinyl ester (82919-37-7)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

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15.2. International regulations

CANADA

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WHMIS Classification	Class D Division 2 Subdivision B - Toxic material causing other toxic effects
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Ammonium hydroxide (1336-21-6)

Listed on the Canadian DSL (Domestic Substances List) inventory.

WHMIS Classification	Class E - Corrosive Material
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3-Iodo-2-propynyl butylcarbamate (55406-53-6)

Listed on the Canadian DSL (Domestic Substances List) inventory.

Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate (41556-26-7)

Listed on the Canadian DSL (Domestic Substances List) inventory.

Decanedioic acid, methyl 1,2,2,6,6-pentamethyl-4-piperidinyl ester (82919-37-7)

Listed on the Canadian DSL (Domestic Substances List) inventory.

EU-Regulations

Ammonium hydroxide (1336-21-6)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances) substances.

3-Iodo-2-propynyl butylcarbamate (55406-53-6)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances) substances.

Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate (41556-26-7)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances) substances.

Decanedioic acid, methyl 1,2,2,6,6-pentamethyl-4-piperidinyl ester (82919-37-7)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances) substances.

Classification according to Regulation (EC) No. 1272/2008 [CLP]

No additional information available

Classification according to Directive 67/548/EEC or 1999/45/EC

R52/53

Full text of R-phrases: see section 16

15.2.2. National regulations

Ammonium hydroxide (1336-21-6)

Listed on the AICS (the Australian Inventory of Chemical Substances)
Listed on Inventory of Existing Chemical Substances (IECSC)
Listed on the Japanese ENCS (Existing & New Chemicals Substances) inventory.
Listed on the Korean ECL (Existing Chemical List) inventory.
Listed on New Zealand - Inventory of Chemicals (NZIoC)
Listed on Inventory of Chemicals and Chemical Substances (PICCS)
Poisonous and Deleterious Substances Control Law
Listed on the Canadian Ingredient Disclosure List

3-Iodo-2-propynyl butylcarbamate (55406-53-6)

Listed on the AICS (the Australian Inventory of Chemical Substances)
Listed on Inventory of Existing Chemical Substances (IECSC)
Listed on the Japanese ENCS (Existing & New Chemicals Substances) inventory.
Listed on Industrial Safety and Health Law Substances (ISHL)
Listed on the Korean ECL (Existing Chemical List) inventory.
Listed on New Zealand - Inventory of Chemicals (NZIoC)
Listed on Inventory of Chemicals and Chemical Substances (PICCS)

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Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate (41556-26-7)

Listed on the AICS (the Australian Inventory of Chemical Substances)
Listed on Inventory of Existing Chemical Substances (IECSC)
Listed on the Japanese ENCS (Existing & New Chemicals Substances) inventory.
Listed on Industrial Safety and Health Law Substances (ISHL)
Listed on the Korean ECL (Existing Chemical List) inventory.
Listed on New Zealand - Inventory of Chemicals (NZIoC)
Listed on Inventory of Chemicals and Chemical Substances (PICCS)

Decanedioic acid, methyl 1,2,2,6,6-pentamethyl-4-piperidinyl ester (82919-37-7)

Listed on the AICS (the Australian Inventory of Chemical Substances)
Listed on Inventory of Existing Chemical Substances (IECSC)
Listed on the Japanese ENCS (Existing & New Chemicals Substances) inventory.
Listed on Industrial Safety and Health Law Substances (ISHL)
Listed on the Korean ECL (Existing Chemical List) inventory.
Listed on New Zealand - Inventory of Chemicals (NZIoC)
Listed on Inventory of Chemicals and Chemical Substances (PICCS)

15.3. US State regulations

No additional information available

SECTION 16: Other information

Sources of Key data : Supplier's Safety Data Sheet.

Other information : None.

Full text of H-phrases: see section 16:

Acute Tox. 4 (Inhalation)	Acute toxicity (inhalation) Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Flam. Liq. 4	Flammable liquids Category 4
Skin Corr. 1B	Skin corrosion/irritation Category 1B
Skin Sens. 1	Sensitisation — Skin, category 1
STOT SE 3	Specific target organ toxicity (single exposure) Category 3
H227	Combustible liquid
H302	Harmful if swallowed
H314	Causes severe skin burns and eye damage
H317	May cause an allergic skin reaction
H318	Causes serious eye damage
H332	Harmful if inhaled
H335	May cause respiratory irritation

SDS US (GHS HazCom 2012)

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product