



# SAFETY DATA SHEET

THE DOW CHEMICAL COMPANY\*

**Product name:** ADCOTE™ 69-100

**Issue Date:** 03/17/2015

**Print Date:** 03/19/2015

THE DOW CHEMICAL COMPANY\* encourages and expects you to read and understand the entire (M)SDS, as there is important information throughout the document. We expect you to follow the precautions identified in this document unless your use conditions would necessitate other appropriate methods or actions.

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## 1. IDENTIFICATION

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**Product name:** ADCOTE™ 69-100

**Recommended use of the chemical and restrictions on use**

**Identified uses:** Packaging laminating adhesives

### COMPANY IDENTIFICATION

THE DOW CHEMICAL COMPANY\*

Agent for Rohm and Haas Chemicals LLC

100 INDEPENDENCE MALL WEST

PHILADELPHIA PA 19106-2399

UNITED STATES

**Customer Information Number:**

215-592-3000

[SDSQuestion@dow.com](mailto:SDSQuestion@dow.com)

### EMERGENCY TELEPHONE NUMBER

**24-Hour Emergency Contact:** 1 800 424 9300

**Local Emergency Contact:** 989-636-4400

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## 2. HAZARDS IDENTIFICATION

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### Hazard classification

This material is hazardous under the criteria of the Federal OSHA Hazard Communication Standard 29CFR 1910.1200.

Flammable liquids - Category 2

Eye irritation - Category 2A

Specific target organ toxicity - single exposure - Category 3

**Label elements**

**Hazard pictograms**



Signal word: **DANGER!**

#### **Hazards**

Highly flammable liquid and vapour.  
Causes serious eye irritation.  
May cause drowsiness or dizziness.

#### **Precautionary statements**

##### **Prevention**

Keep away from heat/sparks/open flames/hot surfaces. - No smoking.  
Keep container tightly closed.  
Ground/bond container and receiving equipment.  
Use explosion-proof electrical/ ventilating/ lighting/ equipment.  
Use only non-sparking tools.  
Take precautionary measures against static discharge.  
Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.  
Wash skin thoroughly after handling.  
Use only outdoors or in a well-ventilated area.  
Wear protective gloves/ eye protection/ face protection.

##### **Response**

IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower.  
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/ physician if you feel unwell.  
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
If eye irritation persists: Get medical advice/ attention.  
In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.

##### **Storage**

Store in a well-ventilated place. Keep container tightly closed.  
Store in a well-ventilated place. Keep cool.  
Store locked up.

##### **Disposal**

Dispose of contents/ container to an approved waste disposal plant.

#### **Other hazards**

no data available

#### **Further information**

The values listed below represent the percentages of ingredients of unknown toxicity.  
The following percentage of the mixture consists of ingredient(s) with unknown acute toxicity: 7.5 %

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### **3. COMPOSITION/INFORMATION ON INGREDIENTS**

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This product is a mixture.

Component	CASRN	Concentration
Organic resin	Not Hazardous	5.0 - 10.0 %
Polyester resin(s)	Not Hazardous	30.0 - 35.0 %
Methyl ethyl ketone	78-93-3	59.0 - 61.0 %

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#### 4. FIRST AID MEASURES

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##### Description of first aid measures

**Inhalation:** Move to fresh air. Give artificial respiration if breathing has stopped. Get prompt medical attention. In case of shortness of breath, give oxygen.

**Skin contact:** Remove contaminated clothing. Wash off with soap and plenty of water. Wash contaminated clothing before re-use. Do not take clothing home to be laundered. Consult a physician.

**Eye contact:** Rinse immediately with plenty of water for at least 15 minutes. Get prompt medical attention.

**Ingestion:** Drink 1 or 2 glasses of water. Do not induce vomiting: contains petroleum distillates and/or aromatic solvents. Careful gastric lavage may be indicated. IMMEDIATELY see a physician. If vomiting occurs spontaneously, keep airway clear. Never give anything by mouth to an unconscious person.

**Most important symptoms and effects, both acute and delayed:** Aside from the information found under Description of first aid measures (above) and Indication of immediate medical attention and special treatment needed (below), any additional important symptoms and effects are described in Section 11: Toxicology Information.

##### Indication of any immediate medical attention and special treatment needed

**Notes to physician:** Massive ingestion of methyl ethyl ketone may cause gastric irritation with absorption leading to metabolic acidosis with an anion gap. CNS narcosis and cardiac arrhythmias effects may be similar to other organic solvents.

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#### 5. FIREFIGHTING MEASURES

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**Suitable extinguishing media:** Use the following extinguishing media when fighting fires involving this material: Water spray Foam Carbon dioxide (CO2) Dry chemical

**Unsuitable extinguishing media:** no data available

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

**Hazardous combustion products:** no data available

**Unusual Fire and Explosion Hazards:** Vapors can travel to a source of ignition and flash back. Heated material can form flammable or explosive vapors with air. Closed containers may rupture via pressure build-up when exposed to fire or extreme heat. During a fire, irritating and highly toxic gases and/or fumes may be generated during combustion or decomposition.

**Advice for firefighters**

**Fire Fighting Procedures:** EXPLOSION HAZARD. Fight advanced fires from a protected location. Cool closed containers exposed to fire with water spray. Remain upwind. Avoid breathing smoke.

**Special protective equipment for firefighters:** In the event of fire, wear self-contained breathing apparatus.

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## 6. ACCIDENTAL RELEASE MEASURES

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**Personal precautions, protective equipment and emergency procedures:** Appropriate protective equipment must be worn when handling a spill of this material. See SECTION 8, Exposure Controls/Personal Protection, for recommendations. If exposed to material during clean-up operations, see SECTION 4, First Aid Measures, for actions to follow.

**Environmental precautions:** CAUTION: Keep spills and cleaning runoff out of municipal sewers and open bodies of water.

**Methods and materials for containment and cleaning up:** Eliminate all ignition sources. Evacuate personnel to safe areas. Ventilate the area. Floor may be slippery; use care to avoid falling. Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Sweep up or vacuum up spillage and collect in suitable container for disposal. No sparking tools should be used. Avoid breathing vapor. NOTE: Spills on porous surfaces can contaminate groundwater.

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## 7. HANDLING AND STORAGE

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**Precautions for safe handling: Conditions for safe storage:** Avoid temperature extremes during storage; ambient temperature preferred. Store away from excessive heat (e.g. steampipes, radiators), from sources of ignition and from reactive materials. Material can burn; limit indoor storage to approved areas equipped with automatic sprinklers. Store out of direct sunlight in a cool place. Keep containers tightly closed in a cool, well-ventilated place. Avoid all ignition sources. Ground all metal containers during storage and handling. Residual vapors in empty containers may explode on ignition. DO NOT cut, drill, grind or weld on or near container.

**Storage stability**

Other data: STIR WELL BEFORE USE.

**Other data:** Vapors can be evolved when material is heated during processing operations. See SECTION 8, Exposure Controls/Personal Protection, for types of ventilation required. Use non-sparking tools and grounding cables when transferring. Wash after handling and shower at end of work period. CONTAINERS MAY BE HAZARDOUS WHEN EMPTY. Since emptied containers retain product residue follow all MSDS and label warnings even after container is emptied. Improper disposal or re-use of this container may be dangerous and illegal. Refer to applicable local, state and federal regulations.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Control parameters

Exposure limits are listed below, if they exist.

Component	Regulation	Type of listing	Value/Notation
Methyl ethyl ketone	Rohm and Haas	TWA	50 ppm
	Rohm and Haas	STEL	100 ppm
	ACGIH	TWA	200 ppm
	ACGIH	STEL	300 ppm
	OSHA Z-1	TWA	590 mg/m3 200 ppm
	ACGIH	TWA	BEI
	ACGIH	STEL	BEI

### Exposure controls

**Engineering controls:** Use explosion-proof local exhaust ventilation with a minimum capture velocity of 100 ft/min (0.5 m/sec) at the point of vapor evolution. Refer to the current edition of Industrial Ventilation: A Manual of Recommended Practice published by the American Conference of Governmental Industrial Hygienists for information on the design, installation, use, and maintenance of exhaust systems.

**Protective measures:** Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

### Individual protection measures

**Eye/face protection:** Use chemical splash goggles (ANSI Z87.1 or approved equivalent).

Eye protection worn must be compatible with respiratory protection system employed.

#### Skin protection

**Hand protection:** Chemical-resistant gloves should be worn whenever this material is handled. The glove(s) listed below may provide protection against permeation. (Gloves of other chemically resistant materials may not provide adequate protection): 4H Glove (Trademark of Safety 4 A/S of Denmark) Butyl-rubber. Norfoil (Trademark of Siebe North, Inc.) Gloves should be removed and replaced immediately if there is any indication of degradation or chemical breakthrough. Rinse and remove gloves immediately after use. Wash hands with soap and water.

**Other protection:** Use chemically resistant apron or other impervious clothing to avoid prolonged or repeated skin contact. Where splashing is possible, full chemically resistant protective clothing (e.g. acid suit) and boots are required.

**Respiratory protection:** A respiratory protection program meeting OSHA 1910.134 and ANSI Z88.2 requirements or equivalent must be followed whenever workplace conditions warrant a respirator's use. None required if airborne concentrations are maintained below the exposure limit listed in Exposure Limit Information. Up to 10 times the exposure limit: Wear a properly fitted NIOSH approved (or equivalent) half-mask, air-purifying respirator. Up to 1000 ppm organic vapor: Wear a properly fitted NIOSH approved (or equivalent) full-facepiece, air-purifying respirator, OR full-facepiece, airline respirator in the pressure demand mode. Above 1000 ppm organic vapor or Unknown: Wear a properly fitted NIOSH approved (or equivalent) self-contained breathing apparatus in the pressure demand mode, OR full-facepiece, airline respirator in the pressure demand mode with emergency escape provision. Air-purifying respirators should be equipped with NIOSH approved (or equivalent) organic vapor cartridges and N95 filters. If oil mist is present, use R95 or P95 filters.

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**9. PHYSICAL AND CHEMICAL PROPERTIES**

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<b>Appearance</b>	
Physical state	liquid
Color	dark green
Odor	no data available
Odor Threshold	no data available
pH	no data available
Melting point/range	no data available
Freezing point	no data available
Boiling point (760 mmHg)	80 °C ( 176 °F)
Flash point	-7.00 °C ( 19.40 °F) <i>SETAFLASH CLOSED CUP</i>
Evaporation Rate (Butyl Acetate = 1)	no data available
Flammability (solid, gas)	Not Applicable
Lower explosion limit	1.4 % vol
Upper explosion limit	11.4 % vol
Vapor Pressure	no data available
Relative Vapor Density (air = 1)	2.5
Relative Density (water = 1)	no data available
Water solubility	insoluble
Partition coefficient: n-octanol/water	no data available
Auto-ignition temperature	no data available
Decomposition temperature	no data available
Kinematic Viscosity	no data available
Explosive properties	no data available
Oxidizing properties	no data available
Molecular weight	no data available
Percent volatility	60 %
Volatile Organic Compounds	570.00 g/L

NOTE: The physical data presented above are typical values and should not be construed as a specification.

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**10. STABILITY AND REACTIVITY**

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**Reactivity:** no data available

**Chemical stability:** no data available

**Possibility of hazardous reactions:** This material is considered stable. However, avoid contact with ignition sources (e.g. sparks, open flame, heated surfaces).  
Product will not undergo polymerization.

**Conditions to avoid:** no data available

**Incompatible materials:** Avoid contact with the following: Strong Oxidizers

**Hazardous decomposition products:** There are no known hazardous decomposition products for this material.

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## **11. TOXICOLOGICAL INFORMATION**

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*Toxicological information on this product or its components appear in this section when such data is available.*

### **Acute toxicity**

#### **Acute oral toxicity**

Product test data not available.

#### **Acute dermal toxicity**

Product test data not available.

#### **Acute inhalation toxicity**

Product test data not available.

### **Skin corrosion/irritation**

Product test data not available.

### **Serious eye damage/eye irritation**

Product test data not available.

### **Sensitization**

Product test data not available.

### **Specific Target Organ Systemic Toxicity (Single Exposure)**

Product test data not available.

### **Specific Target Organ Systemic Toxicity (Repeated Exposure)**

Product test data not available.

### **Carcinogenicity**

Product test data not available.

### **Teratogenicity**

Product test data not available.

### **Reproductive toxicity**

Product test data not available.

**Mutagenicity**

Product test data not available.

**Aspiration Hazard**

Product test data not available.

**Additional information**

No toxicity data are available for this material.

**COMPONENTS INFLUENCING TOXICOLOGY:**

**Polyester resin(s)**

**Acute oral toxicity**

Single dose oral LD50 has not been determined.

**Acute dermal toxicity**

The dermal LD50 has not been determined.

**Acute inhalation toxicity**

The LC50 has not been determined.

**Methyl ethyl ketone**

**Acute oral toxicity**

LD50, Rat, 2,657 - 5,554 mg/kg

**Acute inhalation toxicity**

LC50, Rat, 4 Hour, vapour, 34.5 mg/l

**Skin corrosion/irritation**

Brief contact is essentially nonirritating to skin.

Prolonged contact may cause moderate skin irritation with local redness.

Repeated contact may cause moderate skin irritation with local redness.

May cause drying and flaking of the skin.

**Serious eye damage/eye irritation**

May cause pain disproportionate to the level of irritation to eye tissues.

May cause moderate eye irritation which may be slow to heal.

May cause moderate corneal injury.

Vapor may cause eye irritation experienced as mild discomfort and redness.

**Sensitization**

For skin sensitization:

No relevant data found.

For respiratory sensitization:

No relevant data found.

**Specific Target Organ Systemic Toxicity (Single Exposure)**

May cause drowsiness or dizziness.

Route of Exposure: Inhalation

Target Organs: Nervous system



**Specific Target Organ Systemic Toxicity (Repeated Exposure)**

In animals, effects have been reported on the following organs:

Liver.

Methyl ethyl ketone has caused liver effects in laboratory animals exposed by inhalation to high concentrations.

Methyl ethyl ketone is probably not neurotoxic in itself but it potentiates the neurotoxicity of methyl-n-butyl ketone and n-hexane.

**Carcinogenicity**

Available data are inadequate to evaluate carcinogenicity.

**Teratogenicity**

Has been toxic to the fetus in laboratory animals at doses toxic to the mother. Has caused birth defects in laboratory animals only at doses toxic to the mother.

**Reproductive toxicity**

For similar material(s): In animal studies, did not interfere with reproduction.

**Mutagenicity**

In vitro genetic toxicity studies were predominantly negative. Animal genetic toxicity studies were negative.

**Aspiration Hazard**

May be harmful if swallowed and enters airways.

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**12. ECOLOGICAL INFORMATION**

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*Ecotoxicological information on this product or its components appear in this section when such data is available.*

**General Information**

There is no data available for this product.

**Toxicity****Polyester resin(s)****Acute toxicity to fish**

No relevant data found.

**Methyl ethyl ketone****Acute toxicity to fish**

LC50, Pimephales promelas (fathead minnow), static test, 96 Hour, 2,993 mg/l, OECD Test Guideline 203

**Acute toxicity to aquatic invertebrates**

EC50, Daphnia magna (Water flea), static test, 48 Hour, 308 mg/l, OECD Test Guideline 202

**Acute toxicity to algae/aquatic plants**

ErC50, Pseudokirchneriella subcapitata (microalgae), static test, 96 Hour, Growth rate inhibition, 2,029 mg/l, OECD Test Guideline 201

**Toxicity to bacteria**

EC50, Bacteria, 96 Hour, > 1,000 mg/l, hUCC

#### Persistence and degradability

##### Polyester resin(s)

Biodegradability: No relevant data found.

##### Methyl ethyl ketone

Biodegradability: 10-day Window: Not applicable

Biodegradation: 98 %

Exposure time: 28 d

Method: OECD Test Guideline 301D or Equivalent

#### Bioaccumulative potential

##### Polyester resin(s)

Bioaccumulation: No relevant data found.

##### Methyl ethyl ketone

Partition coefficient: n-octanol/water(log Pow): 0.29 Measured

#### Mobility in soil

##### Polyester resin(s)

No relevant data found.

##### Methyl ethyl ketone

Partition coefficient(Koc): 3.8 Estimated.

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### 13. DISPOSAL CONSIDERATIONS

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**Disposal methods:** For disposal, incinerate this material at a facility that complies with local, state, and federal regulations.  
(See 40 CFR 268)

**Contaminated packaging:** Empty containers should be taken to an approved waste handling site for recycling or disposal.

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### 14. TRANSPORT INFORMATION

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#### DOT

Proper shipping name	Resin solution
UN number	UN 1866
Class	3
Packing group	II
Reportable Quantity	Methyl ethyl ketone

#### Classification for SEA transport (IMO-IMDG):

Proper shipping name	RESIN SOLUTION
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UN number	UN 1866
Class	3
Packing group	II
Marine pollutant	No
Transport in bulk according to Annex I or II of MARPOL 73/78 and the IBC or IGC Code	Consult IMO regulations before transporting ocean bulk

**Classification for AIR transport (IATA/ICAO):**

Proper shipping name	Resin solution
UN number	UN 1866
Class	3
Packing group	II

This information is not intended to convey all specific regulatory or operational requirements/information relating to this product. Transportation classifications may vary by container volume and may be influenced by regional or country variations in regulations. Additional transportation system information can be obtained through an authorized sales or customer service representative. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material.

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## 15. REGULATORY INFORMATION

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**OSHA Hazard Communication Standard**

This product is considered hazardous under the OSHA Hazard Communication Standard (29 CFR 1910.1200).

**Superfund Amendments and Reauthorization Act of 1986 Title III (Emergency Planning and Community Right-to-Know Act of 1986) Sections 311 and 312**

Acute Health Hazard  
Chronic Health Hazard  
Fire Hazard

**Superfund Amendments and Reauthorization Act of 1986 Title III (Emergency Planning and Community Right-to-Know Act of 1986) Section 313**

This product does not contain a chemical which is listed in Section 313 at or above de minimis concentrations.

**Pennsylvania**

Any material listed as "Not Hazardous" in the CAS REG NO. column of SECTION 2, Composition/Information On Ingredients, of this MSDS is a trade secret under the provisions of the Pennsylvania Worker and Community Right-to-Know Act.

**United States TSCA Inventory (TSCA)**

All components of this product are in compliance with the inventory listing requirements of the U.S. Toxic Substances Control Act (TSCA) Chemical Substance Inventory.

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## 16. OTHER INFORMATION

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### Hazard Rating System

#### HMIS

Health	Flammability	Physical Hazard
2*	3	0

\* = Chronic Effects (See Hazards Identification)

### Revision

Identification Number: 101118614 / 1001 / Issue Date: 03/17/2015 / Version: 2.0

Most recent revision(s) are noted by the bold, double bars in left-hand margin throughout this document.

### Legend

ACGIH	USA. ACGIH Threshold Limit Values (TLV)
BEI	Biological Exposure Indices
OSHA Z-1	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
Rohm and Haas	Rohm and Haas OEL's
STEL	Short term exposure limit
TWA	Time weighted average

### Information Source and References

This SDS is prepared by Product Regulatory Services and Hazard Communications Groups from information supplied by internal references within our company.

THE DOW CHEMICAL COMPANY\* urges each customer or recipient of this (M)SDS to study it carefully and consult appropriate expertise, as necessary or appropriate, to become aware of and understand the data contained in this (M)SDS and any hazards associated with the product. The information herein is provided in good faith and believed to be accurate as of the effective date shown above. However, no warranty, express or implied, is given. Regulatory requirements are subject to change and may differ between various locations. It is the buyer's/user's responsibility to ensure that his activities comply with all federal, state, provincial or local laws. The information presented here pertains only to the product as shipped. Since conditions for use of the product are not under the control of the manufacturer, it is the buyer's/user's duty to determine the conditions necessary for the safe use of this product. Due to the proliferation of sources for information such as manufacturer-specific (M)SDSs, we are not and cannot be responsible for (M)SDSs obtained from any source other than ourselves. If you have obtained an (M)SDS from another source or if you are not sure that the (M)SDS you have is current, please contact us for the most current version.