

SAFETY DATA SHEET

THE DOW CHEMICAL COMPANY*

Product name: ACRYSOL™ RM-244 Rheology Modifier

Issue Date: 03/04/2015 Print Date: 07/10/2015

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.

1. IDENTIFICATION

Product name: ACRYSOL™ RM-244 Rheology Modifier

Recommended use of the chemical and restrictions on use Identified uses: This product is used in coatings, textiles, binders and 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

EMERGENCY TELEPHONE NUMBER 24-Hour Emergency Contact: 1 800 424 9300 Local Emergency Contact: 800-424-9300

2. HAZARDS IDENTIFICATION

Hazard classification

This material is not hazardous under the criteria of the Federal OSHA Hazard Communication Standard 29CFR 1910.1200.

Other hazards

no data available

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical nature: Polyurethane resin water based This product is a mixture. Component CASRN

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Concentration

Polyurethane resin	Not Hazardous	>= 17.0 - <= 19.0 %
Water	7732-18-5	>= 81.0 - <= 83.0 %

4. FIRST AID MEASURES

Description of first aid measures Inhalation: Move to fresh air.

Skin contact: Wash with water and soap as a precaution. If skin irritation persists, call a physician.

Eye contact: Rinse with plenty of water. If eye irritation persists, consult a specialist.

Ingestion: Drink 1 or 2 glasses of water. Consult a physician if necessary. 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

5. FIREFIGHTING MEASURES

Suitable extinguishing media: Use extinguishing media appropriate for surrounding fire.

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: Material can splatter above 100C/212F. Dried product can burn.

Advice for firefighters Fire Fighting Procedures: no data available

Special protective equipment for firefighters: Wear self-contained breathing apparatus and protective suit.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures: Use personal protective equipment. Keep people away from and upwind of spill/leak. Material can create slippery conditions.

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: Contain spills immediately with inert materials (e.g., sand, earth). Transfer liquids and solid diking material to separate suitable containers for recovery or disposal.

7. HANDLING AND STORAGE

Precautions for safe handling: Avoid contact with eyes, skin and clothing. Wash thoroughly after handling. Keep container tightly closed. Do not breathe vapors, mist or gas.

Conditions for safe storage: Keep from freezing - product stability may be affected. STIR WELL BEFORE USE.

Other data: Monomer vapors can be evolved when material is heated during processing operations. See SECTION 8, for types of ventilation required.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure limits are listed below, if they exist.

Exposure controls

Engineering controls: Use 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.

Individual protection measures

Eye/face protection: Safety glasses with side-shields Eye protection worn must be compatible with respiratory protection system employed.

Skin protection

Hand protection: The glove(s) listed below may provide protection against permeation. (Gloves of other chemically resistant materials may not provide adequate protection): Neoprene gloves

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 under normal operating conditions. Where vapors and/or mists may occur, wear a properly fitted NIOSH approved (or equivalent) half-mask, air-purifying respirator. 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.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Odor

Physical state Color liquid colorless to pale yellow mild

Odor Threshold	no data available	
рН	3.0 - 4.5	
Melting point/range	0 °C (32 °F) Water	
Freezing point	no data available	
Boiling point (760 mmHg)	100 °C (212 °F) Water	
Flash point	Noncombustible	
Evaporation Rate (Butyl Acetate = 1)	<1 Water	
Flammability (solid, gas)	Not Applicable	
Lower explosion limit	Not applicable	
Upper explosion limit	Not applicable	
Vapor Pressure	17 mmHg at 20 °C (68 °F) Water	
Relative Vapor Density (air = 1)	<1.0 Water	
Relative Density (water = 1)	1.044	
Water solubility	Dilutable	
Partition coefficient: n-	no data available	
octanol/water	and the second states	
Auto-ignition temperature	no data available	
Decomposition temperature	no data available	
Dynamic Viscosity	<=3,500 mPa.s	
Kinematic Viscosity	no data available	
Explosive properties	no data available	
Oxidizing properties	no data available	
Molecular weight	no data available	
Percent volatility	81 - 83 % Water	

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

10. STABILITY AND REACTIVITY

Reactivity: no data available

Chemical stability: no data available

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Possibility of hazardous reactions: None known.
Product will not undergo polymerization.
Stable
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Conditions to avoid: no data available

Incompatible materials: There are no known materials which are incompatible with this product.

Hazardous decomposition products: no data available

11. TOXICOLOGICAL INFORMATION

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.

The information shown in SECTION 3, Hazards Identification, is based on toxicity profiles of similar materials or on the components present in this material.

12. ECOLOGICAL INFORMATION

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

No data available.

Persistence and degradability No data available.

Bioaccumulative potential No data available.

Mobility in soil No data available.

13. DISPOSAL CONSIDERATIONS

Disposal methods: For disposal, incinerate or landfill at a permitted facility in accordance with local, state, and federal regulations.

14. TRANSPORT INFORMATION

Transport in bulk

IBC or IGC Code

DOT

Not regulated for transport

Classification for SEA transport (IMO-IMDG):

Not regulated for transport Consult IMO regulations before transporting ocean bulk according to Annex I or II of MARPOL 73/78 and the

Classification for AIR transport (IATA/ICAO): Not regulated for transport 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.

15. REGULATORY INFORMATION

OSHA Hazard Communication Standard

This product is considered non-hazardous under the OSHA Hazard Communication Standard (29CFR1910.1200).

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

This product is not a hazardous chemical under 29CFR 1910.1200, and therefore is not covered by Title III of SARA.

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

Hazard Rating System

HMIS

Health	Flammability	Physical Hazard
1	0	0

Revision

Identification Number: 101166789 / 1001 / Issue Date: 03/04/2015 / Version: 2.0 Most recent revision(s) are noted by the bold, double bars in left-hand margin throughout this document.

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 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.