



SAFETY DATA SHEET

THE DOW CHEMICAL COMPANY*

Product name: ACRY SOL™ WS-32

Issue Date: 08/29/2018
Print Date: 11/16/2018

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: ACRY SOL™ WS-32

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
400 ARCOLA ROAD
COLLEGEVILLE PA 19426-2914
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

GHS classification in accordance with 29 CFR 1910.1200

Not a hazardous substance or mixture.

Other hazards

No data available

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical nature: Acrylic Latex

This product is a mixture.

Component

CASRN

Concentration

2-Propenoic acid, 2-methyl-, polymer with ethyl 2-propenoate	25212-88-8	>= 21.0 - 23.0 %
Residual monomers	Not required	< 500.0 PPM
Aqua ammonia	1336-21-6	<= 0.1 %
Water	7732-18-5	>= 77.0 - 79.0 %

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

Notes to physician: Treatment should be directed at preventing absorption, administering to symptoms (if they occur), and providing supportive therapy.

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 spilled material to 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.

Storage stability

Storage temperature: 1 - 49 °C (34 - 120 °F)

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

If exposure limits exist, they are listed below. If no exposure limits are displayed, then no values are applicable.

Component	Regulation	Type of listing	Value/Notation
Residual monomers	Dow IHG	TWA	4 ppm
	Dow IHG	TWA	SKIN
	Dow IHG	STEL	10 ppm
	Dow IHG	STEL	SKIN
	ACGIH	TWA	20 ppm
Aqua ammonia	Dow IHG	TWA	10 ppm
	Dow IHG	STEL	30 ppm
	OSHA Z-1	TWA	35 mg/m ³ 50 ppm
	ACGIH	TWA	25 ppm, Ammonia
	ACGIH	STEL	35 ppm, Ammonia

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

Physical state	liquid clear
Color	Water white yellow
Odor	Ammonia odor
Odor Threshold	No data available
pH	8.1 - 8.8
Melting point/range	0 °C (32 °F) Water
Freezing point	No data available
Boiling point (760 mmHg)	100.00 °C (212.00 °F) Water
Flash point	Noncombustible
Evaporation Rate (Butyl Acetate = 1)	<1.00 Water
Flammability (solid, gas)	Not Applicable
Lower explosion limit	Not Applicable
Upper explosion limit	Not Applicable
Vapor Pressure	17.0000000 mmHg at 20.00 °C (68.00 °F) Water
Relative Vapor Density (air = 1)	<1.0000 Water
Relative Density (water = 1)	1.0000 - 1.2000
Water solubility	Dilutable
Partition coefficient: n-octanol/water	No data available
Auto-ignition temperature	Not Applicable
Decomposition temperature	No data available
Dynamic Viscosity	1 - 20 mPa.s
Kinematic Viscosity	No data available
Explosive properties	No data available
Oxidizing properties	No data available
Molecular weight	No data available

Percent volatility 77.00 - 79.00 % 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: Stable

Possibility of hazardous reactions: Product will not undergo polymerization.

Conditions to avoid: No data available

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

Hazardous decomposition products

No hazardous decomposition products are known.

11. TOXICOLOGICAL INFORMATION

Toxicological information appears in this section when such data is available.

Acute toxicity

Acute oral toxicity

LD50, Rat, > 5,000 mg/kg

Acute dermal toxicity

LD50, Rabbit, > 5,000 mg/kg

Acute inhalation toxicity

Product test data not available. Refer to component data.

Skin corrosion/irritation

Product test data not available. Refer to component data.

Serious eye damage/eye irritation

No eye irritation

Sensitization

Product test data not available. Refer to component data.

Specific Target Organ Systemic Toxicity (Single Exposure)

Product test data not available. Refer to component data.

Specific Target Organ Systemic Toxicity (Repeated Exposure)

Product test data not available. Refer to component data.

Carcinogenicity

Product test data not available. Refer to component data.

Teratogenicity

Product test data not available. Refer to component data.

Reproductive toxicity

Product test data not available. Refer to component data.

Mutagenicity

Product test data not available. Refer to component data.

Aspiration Hazard

Product test data not available. Refer to component data.

COMPONENTS INFLUENCING TOXICOLOGY:

2-Propenoic acid, 2-methyl-, polymer with ethyl 2-propenoate

Acute inhalation toxicity

For similar material(s): LC50, Rat, 4 Hour, dust/mist, 1.03 mg/l

Skin corrosion/irritation

Brief contact is essentially nonirritating to skin.

Sensitization

For similar material(s):

Did not cause allergic skin reactions when tested in guinea pigs.

For respiratory sensitization:

No relevant data found.

Specific Target Organ Systemic Toxicity (Single Exposure)

Evaluation of available data suggests that this material is not an STOT-SE toxicant.

Specific Target Organ Systemic Toxicity (Repeated Exposure)

No relevant data found.

Carcinogenicity

No relevant data found.

Teratogenicity

No relevant data found.

Reproductive toxicity

No relevant data found.

Mutagenicity

In vitro genetic toxicity studies were negative.

Aspiration Hazard

Based on physical properties, not likely to be an aspiration hazard.

Residual monomers

Acute inhalation toxicity

The LC50 has not been determined.

LC50, Rat, 4 Hour, dust/mist, > 1 mg/l OECD Test Guideline 403

Skin corrosion/irritation

Causes severe burns.

Brief contact may cause severe skin burns. Symptoms may include pain, severe local redness and tissue damage.

Classified as corrosive to the skin according to DOT guidelines.

Sensitization

Did not cause allergic skin reactions when tested in guinea pigs.

Did not cause allergic skin reactions when tested in humans.

For respiratory sensitization:

No relevant data found.

Specific Target Organ Systemic Toxicity (Single Exposure)

May cause respiratory irritation.

Route of Exposure: Inhalation

Target Organs: Respiratory Tract

Specific Target Organ Systemic Toxicity (Repeated Exposure)

Repeated excessive exposures may cause

Respiratory effects.

Carcinogenicity

Did not cause cancer in laboratory animals.

Teratogenicity

Did not cause birth defects or other effects in the fetus even at doses which caused toxic effects in the mother.

Reproductive toxicity

In animal studies, did not interfere with reproduction. In animal studies, did not interfere with fertility.

Mutagenicity

In vitro genetic toxicity studies were negative in some cases and positive in other cases.

Animal genetic toxicity studies were negative.

Aspiration Hazard

Aspiration into the lungs may occur during ingestion or vomiting, causing tissue damage or lung injury.

Aqua ammonia

Acute inhalation toxicity

LC50, Rat, male, 1 Hour, dust/mist, 9.850 mg/l

Skin corrosion/irritation

Brief contact may cause severe skin burns. Symptoms may include pain, severe local redness and tissue damage.

Liquid may cause frostbite upon skin contact.

Vapors may burn skin.
Classified as corrosive to the skin according to DOT guidelines.
Corrosive after 3 minutes to 1 hour of exposure

Sensitization

For skin sensitization:
No relevant data found.

For respiratory sensitization:
No relevant data found.

Specific Target Organ Systemic Toxicity (Repeated Exposure)

Based on available data, repeated exposures are not anticipated to cause additional significant adverse effects.

Carcinogenicity

Did not cause cancer in laboratory animals.

Teratogenicity

Available data are inadequate for evaluation of potential to cause fetotoxicity.

Reproductive toxicity

Available data are inadequate to determine effects on reproduction.

Mutagenicity

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

Aspiration Hazard

Based on physical properties, not likely to be an aspiration hazard.

12. ECOLOGICAL INFORMATION

Ecotoxicological information appears in this section when such data is available.

General Information

There is no data available for this product.

Toxicity**2-Propenoic acid, 2-methyl-, polymer with ethyl 2-propenoate****Acute toxicity to fish**

Material is practically non-toxic to aquatic organisms on an acute basis (LC50/EC50/EL50/LL50 >100 mg/L in the most sensitive species tested).
LC50, zebra fish (*Brachydanio rerio*), 96 Hour, > 100 mg/l

Acute toxicity to aquatic invertebrates

EC50, *Daphnia magna*, 48 Hour, > 100 mg/l

Acute toxicity to algae/aquatic plants

ErC50, *Pseudokirchneriella subcapitata* (green algae), 72 Hour, Growth rate inhibition, > 100 mg/l

Toxicity to bacteria

EC10, Bacteria, 0.5 Hour, Respiration rates., > 1,000 mg/l

Residual monomers

Acute toxicity to fish

No relevant data found.

Material is slightly toxic to aquatic organisms on an acute basis (LC50/EC50 between 10 and 100 mg/L in the most sensitive species tested).

LC50, Oncorhynchus mykiss (rainbow trout), flow-through test, 96 Hour, 85 mg/l, OECD Test Guideline 203 or Equivalent

Acute toxicity to aquatic invertebrates

EC50, Daphnia magna (Water flea), flow-through test, 48 Hour, > 130 mg/l

Acute toxicity to algae/aquatic plants

ErC50, Scenedesmus capricornutum (fresh water algae), static test, 72 Hour, Growth rate, 45 mg/l, OECD Test Guideline 201 or Equivalent

Toxicity to bacteria

EC50, Pseudomonas putida, static test, 17 Hour, Respiration rates., 100 mg/l

Chronic toxicity to fish

NOEC, Danio rerio (zebra fish), flow-through test, 35 d, number of offspring, 10 mg/l

Chronic toxicity to aquatic invertebrates

NOEC, Daphnia magna (Water flea), flow-through test, 21 d, number of offspring, 53 mg/l

Aqua ammonia

Acute toxicity to fish

Material is highly toxic to aquatic organisms on an acute basis (LC50/EC50 between 0.1 and 1 mg/L in the most sensitive species tested).

LC50, Fish, 96 Hour, 0.89 mg/l

Acute toxicity to aquatic invertebrates

LC50, Daphnia magna (Water flea), static test, 48 Hour, 101 mg/l

Acute toxicity to algae/aquatic plants

Based on data from similar materials

EC50, Chlorella vulgaris (Fresh water algae), 18 d, 2,700 mg/l

Chronic toxicity to fish

Based on data from similar materials

LOEC, Oncorhynchus mykiss (rainbow trout), 33 d, <= 0.05 mg/l

Chronic toxicity to aquatic invertebrates

Based on data from similar materials

NOEC, Daphnia magna (Water flea), 21 d, 0.42 mg/l

Persistence and degradability

2-Propenoic acid, 2-methyl-, polymer with ethyl 2-propenoate

Biodegradability: Material is not readily biodegradable according to OECD/EEC guidelines.

10-day Window: Not applicable

Biodegradation: < 10 %
Exposure time: 28 d
Method: OECD Test Guideline 302B or Equivalent

Residual monomers

Biodegradability: No relevant data found.
Material is readily biodegradable. Passes OECD test(s) for ready biodegradability.
10-day Window: Pass
Biodegradation: 86 %
Exposure time: 28 d
Method: OECD Test Guideline 301D or Equivalent

Photodegradation

Test Type: Half-life (indirect photolysis)
Sensitization: OH radicals
Atmospheric half-life: 6.884 Hour
Method: Estimated.

Photodegradation

Test Type: Half-life (indirect photolysis)
Sensitization: Ozone.
Atmospheric half-life: 1.007 d
Method: Estimated.

Aqua ammonia

Biodegradability: Material is expected to be readily biodegradable. Biodegradation may occur under aerobic conditions (in the presence of oxygen).

Theoretical Oxygen Demand: 3.76 mg/mg Estimated.

Bioaccumulative potential

2-Propenoic acid, 2-methyl-, polymer with ethyl 2-propenoate

Bioaccumulation: No relevant data found.

Residual monomers

Bioaccumulation: No relevant data found. No bioconcentration is expected because of the relatively high water solubility.
Partition coefficient: n-octanol/water(log Pow): 0.93 Measured
Bioconcentration factor (BCF): 3.16 Fish Estimated.

Aqua ammonia

Bioaccumulation: Partitioning from water to n-octanol is not applicable.

Mobility in soil

2-Propenoic acid, 2-methyl-, polymer with ethyl 2-propenoate

No relevant data found.

Residual monomers

No relevant data found.
Potential for mobility in soil is very high (Koc between 0 and 50).
Partition coefficient (Koc): 15

Aqua ammonia

No specific, relevant data available for assessment.

13. DISPOSAL CONSIDERATIONS

Disposal methods: Coagulate the emulsion by the stepwise addition of ferric chloride and lime. Remove the clear supernatant and flush to a chemical sewer. For disposal, incinerate or landfill at a permitted facility in accordance with local, state, and federal regulations.

Contaminated packaging: Empty containers retain product residues. Follow label warnings even after container is emptied. Improper disposal or reuse of this container may be dangerous and illegal. Refer to applicable federal, state and local regulations.

14. TRANSPORT INFORMATION

DOT

Not regulated for transport

Classification for SEA transport (IMO-IMDG):

Not regulated for transport

**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):

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

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

No SARA Hazards

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

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

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.

The following chemicals are listed because of the additional requirements of Pennsylvania law:

Components	CASRN
Ethyl acrylate	140-88-5

California Prop. 65

This product contains a chemical that is at or below California Propositions 65's "safe harbor level" as determined via a risk assessment. Therefore, the chemical is not required to be listed as a Prop 65 chemical on the SDS or label.

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.

16. OTHER INFORMATION

Hazard Rating System**HMIS**

Health	Flammability	Physical Hazard
1	0	0

Revision

Identification Number: 10080800 / 1001 / Issue Date: 08/29/2018 / Version: 2.1

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)
Dow IHG	Dow Industrial Hygiene Guideline
OSHA Z-1	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
SKIN	Absorbed via skin
STEL	Short term exposure limit
TWA	Time weighted average

Full text of other abbreviations

AICS - Australian Inventory of Chemical Substances; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; EHS - Extremely Hazardous Substance; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x%

growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; HMIS - Hazardous Materials Identification System; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ - Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

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.

US