



SAFETY DATA SHEET

THE DOW CHEMICAL COMPANY*

Product name: ADCOTE™ 76R44

Issue Date: 08/06/2015

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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: ADCOTE™ 76R44

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

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

Flammable liquids - Category 2

Skin irritation - Category 2

Eye irritation - Category 2A

Reproductive toxicity - Category 2

Specific target organ toxicity - single exposure - Category 3

Specific target organ toxicity - repeated exposure - Category 2 - Inhalation

Aspiration hazard - Category 1

Label elements

Hazard pictograms



Signal word: **DANGER!**

Hazards

Highly flammable liquid and vapour.
May be fatal if swallowed and enters airways.
Causes skin irritation.
Causes serious eye irritation.
May cause drowsiness or dizziness.
Suspected of damaging fertility or the unborn child.
May cause damage to organs through prolonged or repeated exposure if inhaled.

Precautionary statements

Prevention

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.
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.
Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.
Wash skin thoroughly after handling.
Use only outdoors or in a well-ventilated area.
Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response

IF SWALLOWED: Immediately call a POISON CENTER or doctor/ physician.
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
IF INHALED: Remove person to fresh air and keep 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 exposed or concerned: Get medical advice/ attention.
Do NOT induce vomiting.
If skin irritation occurs: Get medical advice/ attention.
If eye irritation persists: Get medical advice/ attention.
Take off contaminated clothing and wash before reuse.
In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.

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

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical nature: Polyester resin solvent based

This product is a mixture.

Component	CASRN	Concentration
Polyester resin(s)	Not Hazardous	>= 39.0 - <= 41.0 %
Toluene	108-88-3	>= 40.0 - <= 44.0 %
Methyl ethyl ketone	78-93-3	>= 10.0 - <= 14.0 %
Propylene glycol methyl ether acetate	108-65-6	>= 2.0 - <= 4.0 %

4. FIRST AID MEASURES

Description of first aid measures

Inhalation: Move to fresh air. If breathing is irregular or stopped, administer artificial respiration. Immediate medical attention is required.

Skin contact: Take off all contaminated clothing immediately. Wash off immediately with soap and plenty of water. If skin irritation persists, call a physician. Wash contaminated clothing before re-use.

Eye contact: Immediately flush eye(s) with plenty of water. Immediate medical attention is required.

Ingestion: Never give anything by mouth to an unconscious person. If a person vomits when lying on his back, place him in the recovery position. Drink 1 or 2 glasses of water. Call a physician immediately.

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. Acute massive exposure to toluene can cause transient hematuria and albuminuria. Cardiac arrhythmias can occur after massive inhalation.

5. FIREFIGHTING MEASURES

Suitable extinguishing media: Foam Carbon dioxide (CO2) Dry powder Water spray

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.

Advice for firefighters

Fire Fighting Procedures: For safety reasons in case of fire, containers should be stored separately in closed containments. Cool closed containers exposed to fire with water spray.

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. Refer to protective measures listed in sections 7 and 8.

Environmental precautions: Do not flush into surface water or sanitary sewer system.

Methods and materials for containment and cleaning up: Evacuate personnel to safe areas. Remove all sources of ignition. Ensure adequate ventilation. Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). No sparking tools should be used.

7. HANDLING AND STORAGE

Precautions for safe handling: Provide sufficient air exchange and/or exhaust in work rooms. In case of insufficient ventilation, wear suitable respiratory equipment. Do not breathe vapours or spray mist. Wear personal protective equipment. For personal protection see section 8. CONTAINERS MAY BE HAZARDOUS WHEN EMPTY. Since emptied containers retain product residue follow all MSDS and label warnings even after container is emptied.

Conditions for safe storage: Material can burn; limit indoor storage to approved areas equipped with automatic sprinklers. Keep container tightly closed in a dry and well-ventilated place. Keep away from heat and sources of ignition. Electrical installations / working materials must comply with the technological safety standards.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure limits are listed below, if they exist.

Component	Regulation	Type of listing	Value/Notation
Toluene	ACGIH	TWA	20 ppm
	OSHA Z-2	TWA	200 ppm
	ACGIH	TWA	BEI
	OSHA Z-2	CEIL	300 ppm
	OSHA Z-2	Peak	500 ppm
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
	Rohm and Haas	TWA	30 ppm
Propylene glycol methyl ether acetate	Rohm and Haas	TWA	Absorbed via skin
	Rohm and Haas	STEL	90 ppm
	Rohm and Haas	STEL	Absorbed via skin
	US WEEL	TWA	50 ppm

Exposure controls

Engineering controls: Use only in area provided with appropriate exhaust ventilation.

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.

Hygiene measures: Wash hands before breaks and immediately after handling the product.

Individual protection measures

Eye/face protection: Tightly fitting safety goggles. 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):

SilverShield Gloves butyl-rubber 4H Glove (Trademark of Safety 4 A/S of Denmark)

Gloves should be removed and replaced immediately if there is any indication of degradation or chemical breakthrough. Before removing gloves clean them with soap and water.

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. 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
Color	Amber to red
Odor	Solvent odor
Odor Threshold	No data available
pH	No data available
Melting point/range	No data available
Freezing point	No data available
Boiling point (760 mmHg)	No data available
Flash point	closed cup 2.00 °C (35.60 °F) <i>SETAFLASH CLOSED CUP</i> SETAFLASH CLOSED CUP
Evaporation Rate (Butyl Acetate = 1)	No data available
Flammability (solid, gas)	Not Applicable
Lower explosion limit	1.00 % vol Toluene
Upper explosion limit	10.00 % vol Methyl ethyl ketone
Vapor Pressure	No data available
Relative Vapor Density (air = 1)	No data available
Relative Density (water = 1)	0.98
Water solubility	insoluble
Partition coefficient: n-octanol/water	No data available
Auto-ignition temperature	515.00 °C (959.00 °F) Toluene
Decomposition temperature	No data available
Dynamic Viscosity	2,300.000 mPa.s
Kinematic Viscosity	No data available
Explosive properties	No data available
Oxidizing properties	No data available
Molecular weight	No data available
Percent volatility	59.00 - 61.00 %
Volatile Organic Compounds	585 g/L
Volatile Organic Compounds	564 g/L

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

Possibility of hazardous reactions: No dangerous reaction known under conditions of normal use. Stable under recommended storage conditions.

Conditions to avoid: Heat, flames and sparks.

Incompatible materials: Strong oxidizing agents

Hazardous decomposition products: No decomposition if stored and applied as directed. Heating or fire conditions liberates toxic gas. Decomposition products can include and are not limited to: Carbon oxides

11. TOXICOLOGICAL INFORMATION

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

Acute toxicity

Acute oral toxicity

Product test data not available. Refer to component data.

Acute dermal toxicity

Product test data not available. Refer to component data.

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

Product test data not available. Refer to component data.

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.

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.

Toluene

Acute oral toxicity

LD50, Rat, 5,580 mg/kg

Acute dermal toxicity

LD50, Rabbit, 12,267 mg/kg

Acute inhalation toxicity

LC50, Rat, male and female, 4 Hour, vapour, > 20 mg/l

Skin corrosion/irritation

Brief contact may cause slight skin irritation with local redness.

Prolonged contact may cause moderate skin irritation with local redness.

May cause drying and flaking of the skin.

Serious eye damage/eye irritation

May cause slight eye irritation.

May cause slight temporary corneal injury.

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

Vapor may cause lacrimation (tears).

Sensitization

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)

May cause drowsiness or dizziness.

Route of Exposure: Inhalation

Target Organs: Central nervous system

Specific Target Organ Systemic Toxicity (Repeated Exposure)

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

central nervous system (CNS) effects

Excessive exposure may cause neurologic signs and symptoms.

Toluene has caused hearing loss in laboratory animals upon exposure to high concentrations.

Intentional misuse by deliberately inhaling toluene may cause nervous system damage, hearing loss, liver and kidney effects and death.

Carcinogenicity

Did not cause cancer in laboratory animals.

Teratogenicity

In laboratory animals, toluene has been toxic to the fetus at doses toxic to the mother; it has caused birth defects in mice when administered orally, but not by inhalation.

Reproductive toxicity

In animal studies, did not interfere with reproduction.

Mutagenicity

The majority and most reliable of the many genetic toxicity studies on toluene, both in vitro and in animals, indicate that it is not genetically toxic.

Aspiration Hazard

May be fatal if swallowed and enters airways.

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.

Propylene glycol methyl ether acetate**Acute oral toxicity**

LD50, Rat, > 5,000 mg/kg

Acute dermal toxicity

LD50, Rabbit, > 5,000 mg/kg

Acute inhalation toxicity

LC50, Rat, 6 Hour, > 10.8 mg/l No deaths occurred at this concentration.

Skin corrosion/irritation

Prolonged contact is essentially nonirritating to skin.

Repeated contact may cause skin irritation with local redness.

Serious eye damage/eye irritation

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

May cause slight eye irritation.

May cause slight corneal injury.

Sensitization

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)

Available data are inadequate to determine single exposure specific target organ toxicity.

Specific Target Organ Systemic Toxicity (Repeated Exposure)

The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

Carcinogenicity

Similar material(s) 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.

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

No relevant data found.

Toluene**Acute toxicity to fish**

Material is moderately toxic to fish on an acute basis (LC50 between 1 and 10 mg/L).

LC50, Rainbow trout (*Oncorhynchus mykiss*), semi-static test, 96 Hour, 5.8 mg/l, OECD Test Guideline 203 or Equivalent

Acute toxicity to aquatic invertebrates

EC50, *Daphnia magna* (Water flea), static test, 24 Hour, 7 mg/l, OECD Test Guideline 202 or Equivalent

Acute toxicity to algae/aquatic plants

EcC50, *Pseudokirchneriella subcapitata* (green algae), 72 Hour, Growth inhibition, 12.5 mg/l, OECD Test Guideline 201 or Equivalent

Toxicity to bacteria

IC50, Bacteria, 16 Hour, 29 mg/l

Chronic toxicity to fish

NOEC, Fish, flow-through, 40 day, growth, 1.4 mg/l

Chronic toxicity to aquatic invertebrates

NOEC, Daphnia magna (Water flea), 21 day, number of offspring, 2 mg/l

NOEC, Ceriodaphnia dubia (water flea), 7 d, number of offspring, 0.74 mg/l

Toxicity to soil-dwelling organisms

LC50, Eisenia fetida (earthworms), 150 - 280 mg/kg

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

Propylene glycol methyl ether acetate

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, Oncorhynchus mykiss (rainbow trout), 96 Hour, 134 mg/l, Method Not Specified.

Acute toxicity to aquatic invertebrates

EC50, Daphnia magna (Water flea), 48 Hour, 408 mg/l, Method Not Specified.

Acute toxicity to algae/aquatic plants

ErC50, Pseudokirchneriella subcapitata (microalgae), static test, 96 Hour, > 1,000 mg/l, OECD Test Guideline 201 or Equivalent

Persistence and degradability

Polyester resin(s)

Biodegradability: No relevant data found.

Toluene

Biodegradability: Material is readily biodegradable. Passes OECD test(s) for ready biodegradability.

Biodegradation: 100 %

Exposure time: 14 d

Method: OECD Test Guideline 301C or Equivalent

Theoretical Oxygen Demand: 3.13 mg/mg Calculated.

Methyl ethyl ketone

Biodegradability: Material is readily biodegradable. Passes OECD test(s) for ready biodegradability.

10-day Window: Not applicable

Biodegradation: 98 %

Exposure time: 28 d

Method: OECD Test Guideline 301D or Equivalent

Propylene glycol methyl ether acetate

Biodegradability: Material is readily biodegradable. Passes OECD test(s) for ready biodegradability. Material is ultimately biodegradable (reaches > 70% mineralization in OECD test(s) for inherent biodegradability).

10-day Window: Pass

Biodegradation: 83 %

Exposure time: 28 d

Method: OECD Test Guideline 301F or Equivalent

10-day Window: Not applicable

Biodegradation: 100 %

Exposure time: 28 d

Method: OECD Test Guideline 302B or Equivalent

Theoretical Oxygen Demand: 1.82 mg/mg

Bioaccumulative potential

Polyester resin(s)

Bioaccumulation: No relevant data found.

Toluene

Bioaccumulation: Bioconcentration potential is low (BCF < 100 or Log Pow < 3).

Partition coefficient: n-octanol/water(log Pow): 2.73 Measured

Bioconcentration factor (BCF): 13.2 - 90 Freshwater fish Measured

Methyl ethyl ketone

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

Propylene glycol methyl ether acetate

Bioaccumulation: Bioconcentration potential is low (BCF < 100 or Log Pow < 3).

Partition coefficient: n-octanol/water(log Pow): 1.2 Measured

Mobility in soil

Polyester resin(s)

No relevant data found.

Toluene

Potential for mobility in soil is very high (Koc between 0 and 50).

Partition coefficient(Koc): 37 - 178 Estimated.

Methyl ethyl ketone

Partition coefficient(Koc): 3.8 Estimated.

Propylene glycol methyl ether acetate

Potential for mobility in soil is very high (Koc between 0 and 50).

Partition coefficient(Koc): 1.7 Estimated.

13. DISPOSAL CONSIDERATIONS

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

14. TRANSPORT INFORMATION

DOT

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

Classification for SEA transport (IMO-IMDG):

Proper shipping name	RESIN SOLUTION
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.

15. REGULATORY INFORMATION

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

Fire Hazard

Chronic Health Hazard

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

This product contains a chemical which is listed in Section 313 at or above de minimis concentrations.

The following listed chemicals are present: (Quantity present is found elsewhere on this MSDS.)

Components**CASRN**

Toluene

108-88-3

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.

California (Proposition 65)

This product contains a component or components known to the state of California to cause birth defects or other reproductive harm:

Components**CASRN**

Toluene

108-88-3

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
3*	3	0

* = Chronic Effects (See Hazards Identification)

Revision

Identification Number: 101112012 / 1001 / Issue Date: 08/06/2015 / Version: 4.0

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

Legend

Absorbed via skin	Absorbed via skin
ACGIH	USA. ACGIH Threshold Limit Values (TLV)
BEI	Biological Exposure Indices
CEIL	Acceptable ceiling concentration

OSHA Z-1	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
OSHA Z-2	USA. Occupational Exposure Limits (OSHA) - Table Z-2
Peak	Acceptable maximum peak above the acceptable ceiling concentration for an 8-hr shift
Rohm and Haas	Rohm and Haas OEL's
STEL	Short term exposure limit
TWA	Time weighted average
US WEEL	USA. Workplace Environmental Exposure Levels (WEEL)

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.