



## SAFETY DATA SHEET

THE DOW CHEMICAL COMPANY

Product name: 2-chloro-4-methylpentane

Issue Date: 10/23/2025  
Print Date: 10/23/2025

### RESEARCH SAMPLE.

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: 2-chloro-4-methylpentane

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

Identified uses: Research sample.

**COMPANY IDENTIFICATION**

THE DOW CHEMICAL COMPANY  
2211 H.H. DOW WAY  
MIDLAND MI 48674  
UNITED STATES

Customer Information Number:

800-258-2436  
SDSQuestion@dow.com

**EMERGENCY TELEPHONE NUMBER**

24-Hour Emergency Contact: CHEMTREC +1 800-424-9300

Local Emergency Contact: 800-424-9300

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## 2. HAZARDS IDENTIFICATION

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**Hazard classification**

GHS classification in accordance with the OSHA Hazard Communication Standard (29 CFR 1910.1200)

Flammable liquids - Category 2

Acute toxicity - Category 4 - Oral

Eye irritation - Category 2A

Short-term (acute) aquatic hazard - Category 2

Long-term (chronic) aquatic hazard - Category 2

**Label elements**

**Hazard pictograms**



Signal word: **DANGER!**

#### Hazards

- H225 Highly flammable liquid and vapour.  
H302 Harmful if swallowed.  
H319 Causes serious eye irritation.  
H411 Toxic to aquatic life with long lasting effects.

#### Precautionary statements

##### Prevention

- P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
P233 Keep container tightly closed.  
P240 Ground and bond container and receiving equipment.  
P241 Use explosion-proof electrical/ ventilating/ lighting equipment.  
P242 Use non-sparking tools.  
P243 Take action to prevent static discharges.  
P264 Wash skin thoroughly after handling.  
P270 Do not eat, drink or smoke when using this product.  
P273 Avoid release to the environment.  
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection/ hearing protection.

##### Response

- P301 + P312 IF SWALLOWED: Call a POISON CENTER/ doctor if you feel unwell. Rinse mouth.  
+ P330  
P303 + P361 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower.  
+ P353  
P305 + P351 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
+ P338  
P337 + P313 If eye irritation persists: Get medical advice/ attention.  
P370 + P378 In case of fire: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide to extinguish.  
P391 Collect spillage.

##### Storage

- P403 + P235 Store in a well-ventilated place. Keep cool.

##### Disposal

- P501 Dispose of contents/ container to an approved waste disposal plant.

#### Other hazards

No data available

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### 3. COMPOSITION/INFORMATION ON INGREDIENTS

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**Synonyms:** substance  
This product is a substance.

Component	CASRN	Concentration
2-chloro-4-methylpentane	25346-32-1	>= 95.0 - <= 100.0 %

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#### 4. FIRST AID MEASURES

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**Description of first aid measures****General advice:**

First Aid responders should pay attention to self-protection and use the recommended protective clothing (chemical resistant gloves, splash protection). If potential for exposure exists refer to Section 8 for specific personal protective equipment.

**Skin contact:** Wash off with plenty of water. Suitable emergency safety shower facility should be available in work area.

**Eye contact:** Flush eyes thoroughly with water for several minutes. Remove contact lenses after the initial 1-2 minutes and continue flushing for several additional minutes. If effects occur, consult a physician, preferably an ophthalmologist. Suitable emergency eye wash facility should be available in work area.

**Ingestion:** Rinse mouth with water. No emergency medical treatment necessary.

**Most important symptoms and effects, both acute and delayed:**

Harmful if swallowed. Causes serious eye irritation.

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

**Notes to physician:** No specific antidote. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.

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#### 5. FIREFIGHTING MEASURES

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**Extinguishing media**

**Suitable extinguishing media:** Alcohol-resistant foam. Carbon dioxide (CO<sub>2</sub>). Dry chemical. Dry sand.

**Unsuitable extinguishing media:** High volume water jet. Do not use direct water stream..

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

**Hazardous combustion products:** No hazardous combustion products are known.

**Unusual Fire and Explosion Hazards:** Flash back possible over considerable distance.. Exposure to combustion products may be a hazard to health.. Flammable concentrations of vapor can accumulate at temperatures above flash point; see Section 9.. Flammable mixtures may exist within the vapor space of containers at room temperature.. Closed containers may

rupture via pressure build-up when exposed to fire or extreme heat.. Vapours may form explosive mixtures with air..

#### Advice for firefighters

**Fire Fighting Procedures:** Use water spray to cool unopened containers.. Evacuate area.. Collect contaminated fire extinguishing water separately. This must not be discharged into drains.. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.. Contain fire water run-off if possible. Fire water run-off, if not contained, may cause environmental damage.. Use water spray to cool fire exposed containers and fire affected zone until fire is out and danger of reignition has passed.. Do not use a solid water stream as it may scatter and spread fire.. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Remove undamaged containers from fire area if it is safe to do so.

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

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## 6. ACCIDENTAL RELEASE MEASURES

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#### Personal precautions, protective equipment and emergency procedures:

Remove all sources of ignition. Ventilate the area. Use personal protective equipment. Eliminate all sources of ignition in vicinity of spill or released vapor to avoid fire or explosion. Ground and bond all containers and handling equipment. Vapor explosion hazard. Keep out of sewers. Follow safe handling advice and personal protective equipment recommendations.

**Environmental precautions:** Do not release the product to the aquatic environment above defined regulatory levels. Prevent further leakage or spillage if safe to do so. Prevent spreading over a wide area (e.g. by containment or oil barriers). Retain and dispose of contaminated wash water. Local authorities should be advised if significant spillages cannot be contained.

**Methods and materials for containment and cleaning up:** Non-sparking tools should be used. Soak up with inert absorbent material. Suppress (knock down) gases/vapours/mists with a water spray jet. Clean up remaining materials from spill with suitable absorbant. Local or national regulations may apply to releases and disposal of this material, as well as those materials and items employed in the cleanup of releases. You will need to determine which regulations are applicable. For large spills, provide dyking or other appropriate containment to keep material from spreading. If dyked material can be pumped, store recovered material in appropriate container.  
See sections: 7, 8, 11, 12 and 13.

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## 7. HANDLING AND STORAGE

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**Precautions for safe handling:** Avoid inhalation of vapour or mist. Do not swallow. Do not get in eyes. Avoid prolonged or repeated contact with skin. Keep container tightly closed. Keep away from heat and sources of ignition. Take precautionary measures against static discharges. Take care to prevent spills, waste and minimize release to the environment. Non-sparking tools should be used. Handle in accordance with good industrial hygiene and safety practice. CONTAINERS MAY BE HAZARDOUS WHEN EMPTY. Since emptied containers retain product residue follow all (M)SDS and label warnings even after container is emptied.

Use with local exhaust ventilation. Use only in an area equipped with explosion proof exhaust ventilation. Ground and bond container and receiving equipment.

**Conditions for safe storage:** Keep in properly labelled containers. Keep tightly closed. Keep in a cool, well-ventilated place. Store in accordance with the particular national regulations. Keep away from heat and sources of ignition.

Do not store with the following product types: Strong oxidizing agents. Organic peroxides. Flammable solids. Pyrophoric liquids. Pyrophoric solids. Self-heating substances and mixtures. Substances and mixtures, which in contact with water, emit flammable gases. Explosives. Gases. Unsuitable materials for containers: None known.

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## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

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### Control parameters

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

### Exposure controls

**Engineering controls:** Use local exhaust ventilation, or other engineering controls to maintain airborne levels below exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, general ventilation should be sufficient for most operations. Local exhaust ventilation may be necessary for some operations.

### Individual protection measures

**Eye/face protection:** Use safety glasses (with side shields).

#### Skin protection

**Hand protection:** Use gloves chemically resistant to this material.

**Other protection:** Use protective clothing chemically resistant to this material.

Selection of specific items such as face shield, boots, apron, or full body suit will depend on the task.

**Respiratory protection:** Respiratory protection should be worn when there is a potential to exceed the exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, wear respiratory protection when adverse effects, such as respiratory irritation or discomfort have been experienced, or where indicated by your risk assessment process. For most conditions no respiratory protection should be needed; however, if discomfort is experienced, use an approved air-purifying respirator.

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

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### Appearance

<b>Physical state</b>	Liquid.
<b>Color</b>	Colorless to yellow
<b>Odor</b>	sweet
<b>Odor Threshold</b>	No test data available
<b>pH</b>	No data available
<b>Melting point/ range</b>	No data available.
<b>Freezing point</b>	No data available.
<b>Boiling point (760 mmHg)</b>	No data available

<b>Flash point</b>	<b>closed cup 20.8 °C ( 69.4 °F) Estimated. open cup 20.8 °C ( 69.4 °F) Estimated.</b>
<b>Evaporation Rate (Butyl Acetate = 1)</b>	Not available
<b>Flammability (solid, gas)</b>	Not Applicable
<b>Flammability (liquids)</b>	Not expected to be a static-accumulating flammable liquid.
<b>Lower explosion limit</b>	Liquid.
<b>Upper explosion limit</b>	Liquid.
<b>Vapor Pressure</b>	No data available
<b>Relative Vapor Density (air = 1)</b>	No data available
<b>Relative Density (water = 1)</b>	No data available
<b>Water solubility</b>	Not applicable
<b>Partition coefficient: n- octanol/water</b>	No data available
<b>Auto-ignition temperature</b>	No data available
<b>Decomposition temperature</b>	No data available
<b>Kinematic Viscosity</b>	No data available
<b>Explosive properties</b>	No data available
<b>Oxidizing properties</b>	No data available
<b>Molecular weight</b>	<i>Not reported</i>

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:** Not classified as a reactivity hazard.

**Chemical stability:** Stable under normal conditions.

**Possibility of hazardous reactions:** Can react with strong oxidizing agents. Vapours may form explosive mixture with air. Highly flammable liquid and vapour.

**Conditions to avoid:** Avoid static discharge. Heat, flames and sparks.

**Incompatible materials:** Avoid contact with oxidizing materials.

**Hazardous decomposition products:** No hazardous decomposition products are known..

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## 11. TOXICOLOGICAL INFORMATION

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*Toxicological information appears in this section when such data are available.*

**Information on likely routes of exposure**

Inhalation, Eye contact, Skin contact, Ingestion.

**Acute toxicity (represents short term exposures with immediate effects - no chronic/delayed effects known unless otherwise noted)**

**Acute Toxicity Endpoints:**  
Harmful if swallowed.

**Acute oral toxicity**

**Information for the Product:**

For similar material(s): Low toxicity if swallowed. Small amounts swallowed incidentally as a result of normal handling operations are not likely to cause injury; however, swallowing larger amounts may cause injury.

As product: Single dose oral LD50 has not been determined.  
LD50, Rat, > 300 - 2,000 mg/kg Estimated by Structure-Activity Relationship (SAR).

**Information for components:**

**2-chloro-4-methylpentane**

As product: Single dose oral LD50 has not been determined. LD50, Rat, > 300 - 2,000 mg/kg Estimated by Structure-Activity Relationship (SAR).

**Acute dermal toxicity**

**Information for the Product:**

For similar material(s): Prolonged skin contact is unlikely to result in absorption of harmful amounts.

As product: The dermal LD50 has not been determined.

**Information for components:**

**2-chloro-4-methylpentane**

As product: The dermal LD50 has not been determined.

**Acute inhalation toxicity**

**Information for the Product:**

For similar material(s): Brief exposure (minutes) is not likely to cause adverse effects. Excessive exposure may cause irritation to upper respiratory tract (nose and throat).

As product: The LC50 has not been determined.

**Information for components:**

**2-chloro-4-methylpentane**

As product: The LC50 has not been determined.

**Skin corrosion/irritation**

Not classified based on available information.

**Information for the Product:**

For similar material(s):

Brief contact may cause slight skin irritation with local redness.

**Information for components:**

**2-chloro-4-methylpentane**

For similar material(s):

Brief contact may cause slight skin irritation with local redness.

**Serious eye damage/eye irritation**

Causes serious eye irritation.

**Information for the Product:**

For similar material(s):

May cause eye irritation.

**Information for components:**

**2-chloro-4-methylpentane**

For similar material(s):

May cause eye irritation.

**Sensitization**

**For skin sensitization:**

Not classified based on available information.

**For respiratory sensitization:**

Not classified based on available information.

**Information for the Product:**

Not expected to be a skin sensitizer based on Structure-Activity Relationship (SAR).

For respiratory sensitization:

No relevant data found.

**Information for components:**

**2-chloro-4-methylpentane**

Not expected to be a skin sensitizer based on Structure-Activity Relationship (SAR).

For respiratory sensitization:

No relevant data found.

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

Not classified based on available information.

**Information for the Product:**

Product test data not available.

**Information for components:**

**2-chloro-4-methylpentane**

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

**Aspiration Hazard**

Not classified based on available information.

**Information for the Product:**

Based on available information, aspiration hazard could not be determined.

**Information for components:**

**2-chloro-4-methylpentane**

Based on available information, aspiration hazard could not be determined.

**Chronic toxicity (represents longer term exposures with repeated dose resulting in chronic/delayed effects - no immediate effects known unless otherwise noted)**

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

Not classified based on available information.

**Information for the Product:**

Product test data not available.

**Information for components:**

**2-chloro-4-methylpentane**

No relevant data found.

**Carcinogenicity**

Not classified based on available information.

**Information for the Product:**

Product test data not available.

**Information for components:**

**2-chloro-4-methylpentane**

No relevant data found.

**Teratogenicity**

Not classified based on available information.

**Information for the Product:**

Product test data not available.

**Information for components:**

**2-chloro-4-methylpentane**

No relevant data found.

**Reproductive toxicity**

Not classified based on available information.

**Information for the Product:**

Product test data not available.

**Information for components:**

**2-chloro-4-methylpentane**

No relevant data found.

**Mutagenicity**

Not classified based on available information.

**Information for the Product:**

Product test data not available.

**Information for components:**

**2-chloro-4-methylpentane**

No relevant data found.

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## 12. ECOLOGICAL INFORMATION

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*Ecotoxicological information appears in this section when such data are available.*

**Toxicity**

**Information for the Product:**

Product test data not available.

**Information for components:**

**2-chloro-4-methylpentane**

**Acute toxicity to fish**

Based on information for a similar material:

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

LC50, Fish, 96 Hour, > 1 - 10 mg/l, Estimated by Structure-Activity Relationship (SAR).

**Persistence and degradability**

**Information for the Product:**

Product test data not available.

**Information for components:**

**2-chloro-4-methylpentane**

**Biodegradability:** No appreciable biodegradation is expected.

**Bioaccumulative potential**

**Information for the Product:**

Product test data not available.

**Information for components:**

**2-chloro-4-methylpentane**

**Bioaccumulation:** No relevant data found.

**Mobility in soil**

**Information for the Product:**

Product test data not available.

**Information for components:**

**2-chloro-4-methylpentane**

No relevant data found.

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## **13. DISPOSAL CONSIDERATIONS**

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**Disposal methods:** NOTICE: Research sample for use by qualified personnel only. Upon completion of tests, dispose of material and container safely and in accord with federal, state/provincial and local laws and regulations. If further information is needed on disposal or use, consult your supplier.

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## **14. TRANSPORT INFORMATION**

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**DOT**

<b>Proper shipping name</b>	Flammable liquids, n.o.s.(2-chloro-4-methylpentane)
<b>UN number</b>	UN 1993
<b>Class</b>	3
<b>Packing group</b>	II

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

Proper shipping name	FLAMMABLE LIQUID, N.O.S.(2-chloro-4-methylpentane)
UN number	UN 1993
Class	3
Packing group	II
Marine pollutant	2-chloro-4-methylpentane
Special precautions for user	EmS: F-E, S-E
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	Flammable liquid, n.o.s.(2-chloro-4-methylpentane)
UN number	UN 1993
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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**Superfund Amendments and Reauthorization Act of 1986 Title III (Emergency Planning and Community Right-to-Know Act of 1986) Sections 311 and 312**

Flammable (gases, aerosols, liquids, or solids)

Acute toxicity (any route of exposure)

Serious eye damage or eye irritation

**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 Worker and Community Right-To-Know Act:**

To the best of our knowledge, this product does not contain chemicals at levels which require reporting under this statute.

**California Prop. 65**

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

**United States TSCA Inventory (TSCA)**

This product contains chemical substance(s) not on the TSCA Inventory. It may be used for research and development purposes only, and only under the supervision of a technically qualified individual. All persons engaged in research and development with this product must be informed of the hazard information in this Material Safety Data Sheet (MSDS).

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**16. OTHER INFORMATION**

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**Other information**

For research use only.

**Revision**

Identification Number: 99203382 / A001 / Issue Date: 10/23/2025 / Version: 0.0

In case this version of the SDS contains significant changes from the previous version, they are listed below or noted by bold, double bars in the left-hand margin throughout this document.

Changes encompass identification, hazards, tox/eco-tox information and the addition/removal of the ingredients, and regulatory information, hazard information, uses, risk management measures and other key regulatory changes of the product. Detailed explanation of the changes can be obtained upon request.

**Full text of other abbreviations**

AIIC - Australian Inventory of Industrial Chemicals; 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); EC<sub>x</sub> - Concentration associated with x% response; EHS - Extremely Hazardous Substance; EL<sub>x</sub> - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErC<sub>x</sub> - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonised 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; IC<sub>50</sub> - 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 Organisation; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardisation; KECI - Korea Existing Chemicals Inventory; LC<sub>50</sub> - Lethal Concentration to 50 % of a test population; LD<sub>50</sub> - 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 - Organisation 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; TECI - Thailand Existing Chemicals 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.

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