Dow (hereinafter, and for purposes of this MSDS only, refers to The Dow Chemical Company and to Dow Chemical Canada Inc.) encourages and expects you to read and understand the entire MSDS, as there is important information throughout the document. Dow expects you to follow the precautions identified in this document unless your use conditions would necessitate other appropriate methods or actions.

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

1.1 IDENTIFICATION

Product Name: TRITON(TM) H-66 SURFACTANT

1.2 COMPANY IDENTIFICATION

The Dow Chemical Company
Midland, MI 48674

1.3 EMERGENCY TELEPHONE NUMBER

24-HOUR EMERGENCY TELEPHONE NUMBER: (989)636-4400.
Customer Information Number: 1-800-258-2436.
2. COMPOSITION INFORMATION

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS #</th>
<th>Amount (%W/W)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water</td>
<td>7732-18-5</td>
<td>50 %</td>
</tr>
<tr>
<td>Phosphate ester potassium salt</td>
<td>Not available</td>
<td>42 %</td>
</tr>
<tr>
<td>Dipotassium hydrogen phosphate</td>
<td>7758-11-4</td>
<td>7 %</td>
</tr>
<tr>
<td>Potassium dihydrogen phosphate</td>
<td>7778-77-0</td>
<td>1 %</td>
</tr>
</tbody>
</table>

(Continued)

3. HAZARDS IDENTIFICATION

3.1 EMERGENCY OVERVIEW

Appearance       Transparent yellow
Physical State   Liquid
Odor             Pungent
Hazards of product NORMAL PRECAUTIONS SHOULD BE FOLLOWED IN HANDLING, STORAGE AND USE.

3.2 POTENTIAL HEALTH EFFECTS

Effects of Single Acute Overexposure

Inhalation       Short-term harmful health effects are not expected from vapor generated at ambient temperature.

Eye Contact      May cause mild discomfort. Excess redness of the conjunctiva may occur.

Skin Contact     Brief contact may cause slight irritation with itching and local redness.
Skin Absorption  No evidence of harmful effects from available information.

Swallowing   Large quantities may cause abdominal discomfort, nausea, vomiting, and dizziness.

Chronic, Prolonged or Repeated Overexposure

Effects of Repeated Overexposure   No adverse effects anticipated from available information.
Other Effects of Overexposure   None currently known.

Medical Conditions Aggravated by Exposure

A knowledge of the available toxicology information and of the physical and chemical properties of the material suggests that overexposure is unlikely to aggravate existing medical conditions.

See Section 11 for toxicological information and additional information about potential health effects.

3.3 POTENTIAL ENVIRONMENTAL EFFECTS

See Section 12 for Ecological Information.

4. FIRST AID PROCEDURES

4.1 INHALATION
No emergency care anticipated.

4.2 EYE CONTACT
Immediately flush eyes with water and continue washing for several minutes. Remove contact lenses, if worn. Obtain medical attention if discomfort persists.

4.3 SKIN CONTACT
Wash skin with plenty of water.

4.4 SWALLOWING
If patient is fully conscious, give two glasses of water. DO NOT INDUCE VOMITING. Obtain medical attention.

4.5 NOTES TO PHYSICIAN
There is no specific antidote. Treatment of overexposure should be directed at the control of symptoms and the clinical condition of the patient. Any material aspirated during vomiting may cause lung injury. Therefore, emesis should not be induced mechanically or pharmacologically. If it is considered necessary to evacuate the stomach contents, this should be done by means least likely to cause aspiration (e.g., gastric lavage after endotracheal intubation).

5. FIRE FIGHTING MEASURES

5.1 FLAMMABLE PROPERTIES - REFER TO SECTION 9, PHYSICAL AND CHEMICAL PROPERTIES

5.2 EXTINGUISHING MEDIA
Non-flammable (aqueous solution): After water evaporates, remaining material will burn. Apply alcohol-type or all-purpose-type foam by manufacturers' recommended techniques for large fires. Use water spray, carbon dioxide or dry chemical media for small fires.

5.3 FIRE FIGHTING PROCEDURES
Do not direct a solid stream of water or foam into hot, burning pools; this may cause frothing and increase fire intensity.

5.4 SPECIAL PROTECTIVE EQUIPMENT FOR FIREFIGHTERS
Use self-contained breathing apparatus and protective clothing.

5.5 UNUSUAL FIRE AND EXPLOSION HAZARDS
During a fire, oxides of phosphorus may be produced.

Avoid accumulation of water. Product may be carried across water surface spreading fire or contacting an ignition source.

5.6 HAZARDOUS COMBUSTION PRODUCTS
Burning can produce the following products: Carbon monoxide and/or carbon dioxide. Oxides of phosphorous. Carbon monoxide is highly toxic if inhaled; carbon dioxide in sufficient concentrations can act as an asphyxiant. Acute overexposure to the products of combustion may result in irritation of the respiratory tract.

6. ACCIDENTAL RELEASE MEASURES

Steps to be Taken if Material is Released or Spilled:
Contain spills immediately with inert materials (e.g., sand, earth). Transfer liquids and solid diking material to suitable containers for recovery or disposal. To avoid gelling and foaming problems, do not use water to flush away spills.
Personal Precautions: Wear eye and skin protection. Floor may be slippery; use care to avoid falling. See Section 8.2 - Personal Protection.

Environmental Precautions: Avoid discharge to natural waters.

7. HANDLING AND STORAGE

7.1 HANDLING

General Handling
Keep container closed.
Use with adequate ventilation.
Wash thoroughly after handling.

FOR INDUSTRY USE ONLY.

Ventilation
General (mechanical) room ventilation is expected to be satisfactory.

Other Precautions
Surfactants can cause foaming problems in biological wastewater treatment plants and other high shear operations.

7.2 STORAGE

No specific requirements.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

8.1 EXPOSURE LIMITS

None established by OSHA, ACGIH or Dow.

8.2 PERSONAL PROTECTION

Respiratory Protection: None expected to be needed. However, where misting may occur, wear a MSHA/NIOSH approved (or equivalent) half-mask air purifying respirator.
VENTILATION:
General (mechanical) room ventilation is expected to be satisfactory.

EYE PROTECTION:
Safety Glasses

PROTECTIVE GLOVES:
Neoprene
Butyl

OTHER PROTECTIVE EQUIPMENT:
Eye Bath, Safety Shower
Full protective clothing

9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE: Liquid

APPEARANCE: Transparent yellow

ODOR: Pungent

FLASH POINT - CLOSED CUP: Pensky-Martens Closed Cup ASTM D 93 None.

FLAMMABLE LIMITS IN AIR:
Lower Not Determined, Aqueous System
Upper Not Determined, Aqueous System

AUTOIGNITION TEMPERATURE: Not currently available.

VAPOR PRESSURE: 13.38 mmHg 20 °C

BOILING POINT (760 mmHg): 100 °C 213 °F

VAPOR DENSITY (AIR = 1): 1.20

SPECIFIC GRAVITY (H2O = 1): 1.256 20 °C / 20 °C

FREEZING POINT: -21 °C -6 °F

MELTING POINT: Not applicable.

SOLUBILITY IN WATER (BY WEIGHT): 100% 20 °C

pH: 8.4
10. STABILITY AND REACTIVITY

10.1 STABILITY/INSTABILITY

Stable.

Conditions to Avoid: Prolonged excessive heat may cause product decomposition.

Incompatible Materials: Contact with strong oxidizing and/or reducing agents may result in rapid energy release. Avoid strong bases at high temperatures, strong acids, and materials reactive with hydroxyl compounds.

10.2 HAZARDOUS POLYMERIZATION

Will not occur.

11. TOXICOLOGICAL INFORMATION

ACUTE TOXICITY

Peroral

Rat = 5 g/kg

Mortality: 0/6

Major Signs: muscular weakness, ruffled fur, decreased activity

Percutaneous

Rabbit = 3 g/kg; 24 h occluded.

Mortality: 0/6
Major Signs: None.

Inhalation

dynamic generation of vapor  Rat; female = 0.6 mg/L; 35 °C.

Mortality: 0/3

Major Signs: None.

Gross Pathology: focal lung discoloration

Inhalation

dynamic generation of vapor  Rat; male = 0.6 mg/L; 35 °C.

Mortality: 0/3

Major Signs: None.

Gross Pathology: None.

IRRITATION

Skin.: Rabbit; 24 h occluded
Results: moderate erythema

Eye: Rabbit; 0.1 ml
Results: moderate conjunctival irritation and iritis; no corneal injury

12. ECOLOGICAL INFORMATION

12.1 ENVIRONMENTAL FATE

<table>
<thead>
<tr>
<th></th>
<th>Day 5</th>
<th>Day 10</th>
<th>Day 15</th>
<th>Day 20</th>
<th>Day 28/30</th>
</tr>
</thead>
<tbody>
<tr>
<td>BOD</td>
<td>18 %</td>
<td>18 %</td>
<td>73 %</td>
<td>88 %</td>
<td></td>
</tr>
</tbody>
</table>
Closed Bottle Test (OECD 301D) (% Oxygen consumption)

<table>
<thead>
<tr>
<th></th>
<th>Day 5</th>
<th>Day 10</th>
<th>Day 15</th>
<th>Day 28</th>
</tr>
</thead>
<tbody>
<tr>
<td>TRITON(TM) H-66 SURFACTANT</td>
<td>16 %</td>
<td>4 %</td>
<td>67 %</td>
<td></td>
</tr>
</tbody>
</table>

12.2 ECOTOXICITY

Toxicity to Micro-organisms
Bacterial/NA; 16 h; IC50
Result value: > 5000 mg/L

Toxicity to Aquatic Invertebrates
Daphnia; 48 h; LC50
Result value: 1812 mg/L

Toxicity to Aquatic Invertebrates
Daphnia; 48 h; NOEC
Result value: 864 mg/L

Toxicity to Aquatic Invertebrates
Daphnia; 48 h; EC50
Result value: 1812 mg/L

Toxicity to Fish
Fathead Minnow; 96 h; LC50
Result value: 3790 mg/L

Toxicity to Fish
Fathead Minnow; 96 h; NOEC
Result value: 2160 mg/L

12.3 FURTHER INFORMATION

Theoretical Oxygen Demand (THOD) - measured: 0.62 mg/mg

Chemical Oxygen Demand (COD) - calculated: 0.62 mg/mg

13. DISPOSAL CONSIDERATIONS
13.1 DISPOSAL

DO NOT DUMP INTO ANY SEWERS, ON THE GROUND, OR INTO ANY BODY OF WATER. All disposal practices must be in compliance with all Federal, State/Provincial and local laws and regulations. Regulations may vary in different locations. Waste characterizations and compliance with applicable laws are the responsibility solely of the waste generator. DOW HAS NO CONTROL OVER THE MANAGEMENT PRACTICES OR MANUFACTURING PROCESSES OF PARTIES HANDLING OR USING THIS MATERIAL. THE INFORMATION PRESENTED HERE PERTAINS ONLY TO THE PRODUCT AS SHIPPED IN ITS INTENDED CONDITION AS DESCRIBED IN MSDS SECTION 2 (Composition/ Information on Ingredients). FOR UNUSED & UNCONTAMINATED PRODUCT, the preferred options include sending to a licensed, permitted: Incinerator or other thermal destruction device. As a service to its customers, Dow can provide names of information resources to help identify waste management companies and other facilities which recycle, reprocess or manage chemicals or plastics, and that manage used drums. Telephone Dow's Customer Information Group at 1-800-258-2436 or 1-989-832-1556 (U.S.), or 1-800-331-6451 (Canada) for further details.

14. TRANSPORT INFORMATION

14.1 U.S. D.O.T.

NON-BULK
Proper Shipping Name : NOT REGULATED

BULK
Proper Shipping Name : NOT REGULATED

This information is not intended to convey all specific regulatory or operational requirements/information relating to this product. 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

15.1 FEDERAL/NATIONAL
OSHA HAZARD COMMUNICATION STANDARD

This product is not a “Hazardous Chemical” as defined by 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) SECTION 313

This product contains the following substances which are subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act 1986 and which are listed in 40 CFR Part 372.

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS #</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glycol Ethers</td>
<td>Not available</td>
<td>&lt;= 12.0000%</td>
</tr>
</tbody>
</table>

COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION, AND LIABILITY ACT OF 1980 (CERCLA) SECTION 103

This product contains the following substances which are subject to CERCLA Section 103 reporting requirements and which are listed in 40 CFR 302.4.

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS #</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,4-Dioxane</td>
<td>123-91-1</td>
<td>&lt;= 0.0500%</td>
</tr>
<tr>
<td>Acetaldehyde</td>
<td>75-07-0</td>
<td>&lt;= 0.0100%</td>
</tr>
<tr>
<td>Formaldehyde</td>
<td>50-00-0</td>
<td>&lt;= 0.0025%</td>
</tr>
</tbody>
</table>

SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT OF 1986 TITLE III (EMERGENCY PLANNING AND COMMUNITY RIGHT-TO-KNOW ACT OF 1986) SECTION 302

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

SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT OF 1986 TITLE III (EMERGENCY PLANNING AND COMMUNITY RIGHT-TO-KNOW ACT OF 1986) SECTIONS 311 AND 312

Delayed (Chronic) Health Hazard : No
Fire Hazard : No
Immediate (Acute) Health Hazard : No
Reactive Hazard : No
Sudden Release of Pressure Hazard: No

**TOXIC SUBSTANCES CONTROL ACT (TSCA)**
All components of this product are on the TSCA Inventory or are exempt from TSCA Inventory requirements under 40 CFR 720.30.

**EUROPEAN INVENTORY OF EXISTING COMMERCIAL CHEMICAL SUBSTANCES (EINECS)**
The components of this product are on the EINECS inventory or are exempt from EINECS inventory requirements.

**CEPA - DOMESTIC SUBSTANCES LIST (DSL)**
All substances contained in this product are listed on the Canadian Domestic Substances List (DSL) or are not required to be listed.

15.2 STATE/LOCAL

**PENNSYLVANIA (WORKER AND COMMUNITY RIGHT-TO-KNOW ACT): PENNSYLVANIA HAZARDOUS SUBSTANCES LIST AND/OR PENNSYLVANIA ENVIRONMENTAL HAZARDOUS SUBSTANCE LIST:**
The following product components are cited in the Pennsylvania Hazardous Substance List and/or the Pennsylvania Environmental Substance List, and are present at levels which require reporting.

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS #</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glycol Ethers</td>
<td>Not available</td>
<td>&lt;= 12.000%</td>
</tr>
</tbody>
</table>

**PENNSYLVANIA (WORKER AND COMMUNITY RIGHT-TO-KNOW ACT): PENNSYLVANIA SPECIAL HAZARDOUS SUBSTANCES LIST:**

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS #</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,4-Dioxane</td>
<td>123-91-1</td>
<td>&lt;= 0.0500%</td>
</tr>
</tbody>
</table>

**CALIFORNIA PROPOSITION 65 (SAFE DRINKING WATER AND TOXIC ENFORCEMENT ACT OF 1986)**
WARNING: This product contains a chemical(s) known to the State of California to cause cancer.

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS #</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,4-Dioxane</td>
<td>123-91-1</td>
<td>&lt;= 0.0500%</td>
</tr>
<tr>
<td>Acetaldehyde</td>
<td>75-07-0</td>
<td>&lt;= 0.0100%</td>
</tr>
<tr>
<td>Formaldehyde</td>
<td>50-00-0</td>
<td>&lt;= 0.0025%</td>
</tr>
</tbody>
</table>

**CALIFORNIA SCAQMD RULE 443.1 (SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT RULE 443.1, LABELING OF MATERIALS CONTAINING ORGANIC SOLVENTS)**

**VOC:** Vapor pressure 13.38 mmHg @ 20 °C
0.03 g/l

This section provides selected regulatory information on this product including its components. This is not intended to include all regulations. It is the responsibility of the user to know and comply with all applicable rules, regulations and laws relating to the product being used.

**16. OTHER INFORMATION**

**16.1 ADDITIONAL INFORMATION**

ADDITIONAL INFORMATION: Additional product safety information on this product may be obtained by calling Dow’s Customer Information Group at 1-800-258-2436 (U.S.) or 1-800-331-6451 (Canada).

**16.2 HAZARD RATING SYSTEM**

**NFPA ratings for this product are:**  H - 1     F - 1     R - 0

*These ratings are part of a specific hazard communication program and should be disregarded where individuals are not trained in the use of this hazard rating system. You should be familiar with the hazard communication programs applicable to your workplace.*
16.3 RECOMMENDED USES AND RESTRICTIONS

FOR INDUSTRY USE ONLY

16.4 REVISION

Version: 4.0
Revision: 06/10/2004
Most recent revision(s) are noted by the bold, double bars in left-hand margin throughout this document.

16.5 LEGEND

Bacterial/NA Non Acclimated Bacteria
F Fire
H Health
IHG Industrial Hygiene Guideline
N/A Not available
NFPA National Fire Protection Association
O Oxidizer
R Reactivity
TS Trade secret
VOL/VOL Volume/Volume
W Water Reactive
W/W Weight/Weight

NOTICE: Dow urges each customer or recipient of this MSDS to study it carefully and consult appropriate expertise, as necessary or appropriate, to become aware of and understand the data contained in this MSDS 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 its 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 Dow, 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 MSDSs, Dow is not and cannot be responsible for MSDSs obtained from any source other than Dow. If you have obtained a Dow MSDS from a non-Dow source or if you are not sure that a Dow MSDS is current, please contact Dow for the most current version.