1. CHEMICAL PRODUCT & COMPANY IDENTIFICATION

24-HOUR EMERGENCY PHONE NUMBER: 989-636-4400

Product: DEVELOPER DS3000

Product Code: 50746

Effective Date: 06/11/04 Date Printed: 06/22/04 MSD: 005368

The Dow Chemical Company, Midland, MI 48674

Customer Information Center: 800-258-2436

#### 2. COMPOSITION/INFORMATION ON INGREDIENTS

1,3,5-Tris(1-methylethyl) benzene	CAS#	000717-74-8	95% Min
(Common name: Triisopropyl benz	ene)		
1,2,4-Triisopropylbenzene	CAS#	000948-32-3	4.1% Max
1-Ethyl-3,5-diisopropylbenzene	CAS#	015181-13-2	1.1% Max
Indenes			2.6% Max

3. HAZARDS IDENTIFICATION

#### EMERGENCY OVERVIEW

# 

\* if inhaled. May cause central nervous system effects \*

POTENTIAL HEALTH EFFECTS (See Section 11 for toxicological data.)

- EYE: May cause slight eye irritation. May cause slight temporary corneal injury. Vapor or mist may cause eye irritation.
- SKIN: Prolonged or repeated exposure may cause skin irritation, even a burn. Prolonged or widespread skin contact may result in absorption of harmful amounts. Lethargy may be a sign or symptom of excessive exposure.
- INGESTION: Low toxicity if swallowed. Aspiration into the lungs may occur during ingestion or vomiting, causing lung damage or even death due to chemical pneumonia.
- INHALATION: Prolonged excessive exposure may cause adverse effects. May cause central nervous system effects. Symptoms may include headache, dizziness and drowsiness, progressing to incoordination and unconsciousness.

SYSTEMIC (OTHER TARGET ORGAN) EFFECTS: No relevant information

(Continued on Page 2)
\* or (R) Indicates a Trademark of The Dow Chemical Company

MATERIAL SAFETY DATA SHEET

Product Name: DEVELOPER DS3000 Product Code: 50746

Effective Date: 06/11/04 Date Printed: 06/22/04 MSD: 005368

\_\_\_\_\_

3. HAZARDS IDENTIFICATION (CONTINUED)

found.

CANCER INFORMATION: No relevant information found.

TERATOLOGY (BIRTH DEFECTS): No relevant information found.

REPRODUCTIVE EFFECTS: No relevant information found.

4. FIRST AID

- EYE: Flush eyes thoroughly with water for several minutes. Remove contact lenses after initial 1-2 minutes and continue flushing for several additional minutes. If effects occur, consult a physician, preferably an ophthalmologist.
- SKIN: Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing. Seek medical attention if symptoms occur or irritation persists. Wash clothing before reuse. Items which cannot be decontaminated, including leather articles such as shoes, belts and watchbands should be disposed of properly.
- INGESTION: Do not induce vomiting. Call a physician and/or transport to emergency facility immediately.
- INHALATION: Move person to fresh air. If not breathing, give artificial respiration. If breathing is difficult, oxygen should be administered by qualified personnel. Call a physician or transport to a medical facility.
- NOTE TO PHYSICIAN: If burn is present, treat as any thermal burn, after decontamination. The decision of whether to induce vomiting or not should be made by a physician. If lavage is performed, suggest endotracheal and/or esophageal control. Danger from lung aspiration must be weighed against toxicity when considering emptying the stomach. No specific antidote. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.

## 5. FIRE FIGHTING MEASURES

FLAMMABLE PROPERTIES FLASH POINT: 188F, 86.7C METHOD USED: TAG Closed cup AUTOIGNITION TEMPERATURE: 756F, 402C

(Continued on Page 3) \* or (R) Indicates a Trademark of The Dow Chemical Company

DOW RESTRICTED - For internal use only

MATERIAL SAFETY DATA SHEET

Product Name: DEVELOPER DS3000 Product Code: 50746

Effective Date: 06/11/04 Date Printed: 06/22/04 MSD: 005368

\_\_\_\_\_

5. FIRE FIGHTING MEASURES (CONTINUED)

FLAMMABILITY LIMITS LFL: Not determined UFL: Not determined

- HAZARDOUS COMBUSTION PRODUCTS: During a fire, smoke may contain the original material in addition to combustion products of varying composition which may be toxic and/or irritating. Combustion products may include and are not limited to: carbon monoxide, carbon dioxide.
- OTHER FLAMMABILITY INFORMATION: Violent steam generation or eruption may occur upon application of direct water stream to hot liquids. Dense smoke is produced when product burns.
- EXTINGUISHING MEDIA: Water fog or fine spray, dry chemical fire extinguishers, carbon dioxide fire extinguishers, foam. Alcohol resistant foams (ATC type) are preferred. General purpose synthetic foams (including AFFF) or protein foams may function, but will be less effective.
- FIRE FIGHTING INSTRUCTIONS: Keep people away. Isolate fire area and deny unnecessary entry. Do not use direct water stream. May spread fire. Burning liquids may be moved by flushing with water to protect personnel and minimize property damage. Avoid accumulation of water. Product may be carried across water surface spreading fire or contacting an ignition source. Contain fire water run-off if possible. Fire water run-off, if not contained may cause environmental damage. Review the "Accidental Release Measures" and the "Ecological Information" sections of this MSDS.
- PROTECTIVE EQUIPMENT FOR FIRE FIGHTERS: Wear positive-pressure self-contained breathing apparatus (SCBA) and protective fire fighting clothing (includes fire fighting helmet, coat, pants, boots, and gloves). Avoid contact with this material during fire fighting operations. If contact is likely, change to full chemical resistant clothing with SCBA. If this is not available, wear full chemical resistant clothing with SCBA and fight fire from a remote location. For protective equipment in post-fire or non-fire cleanup situations, refer to the relevant sections.

### MATERIAL SAFETY DATA SHEET PAGE: 4

Product Name: DEVELOPER DS3000 Product Code: 50746

Effective Date: 06/11/04 Date Printed: 06/22/04 MSD: 005368

\_\_\_\_\_

- 6. ACCIDENTAL RELEASE MEASURES (See Section 15 for Regulatory Information)
  - PROTECT PEOPLE: Isolate area. Keep unnecessary and unprotected personnel from entering the area. Keep upwind of spill. Ventilate area of leak or spill. No smoking in area. Refer to Section 7, Handling for additional precautionary measures. Use appropriate safety equipment. For additional information, refer to Section 8, Exposure Controls/Personal Protection.
  - PROTECT THE ENVIRONMENT: Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. See Section 12, Ecological Information.
  - CLEANUP: Contain spilled material if possible. Absorb with material such as sand or sawdust. See Section 13, Disposal Considerations for additional information.
- 7. HANDLING AND STORAGE
  - HANDLING: Keep away from heat, sparks and flame. Avoid breathing vapor. Avoid contact with eyes, skin or clothing. Wash thoroughly after handling. Keep container closed. Use with adequate ventilation. Do not cut or weld container. Containers, even those that have been emptied, can contain vapors. Do not cut, drill, grind, weld or perform similar operations on or near empty containers. See Section 8, Exposure Controls/Personal Protection.

STORAGE: Store in a dry place.

- 8. EXPOSURE CONTROLS/PERSONAL PROTECTION
  - ENGINEERING CONTROLS: Use only with adequate ventilation. Local exhaust ventilation may be necessary for some operations.

PERSONAL PROTECTIVE EQUIPMENT

- EYE/FACE PROTECTION: Use safety glasses. Where contact with this material is likely, chemical goggles are recommended because eye contact may cause discomfort even though it is unlikely to cause injury. If exposure causes eye discomfort, use a full-face respirator.
- SKIN PROTECTION: Use protective clothing impervious to this material. Selection of specific items such as faceshield, gloves, boots, apron, or full body suit will depend on

(Continued on Page 5) \* or (R) Indicates a Trademark of The Dow Chemical Company

MATERIAL SAFETY DATA SHEET PAGE: 5
Product Name: DEVELOPER DS3000
Product Code: 50746
Effective Date: 06/11/04 Date Printed: 06/22/04 MSD: 005368

\_\_\_\_\_

8. EXPOSURE CONTROLS/PERSONAL PROTECTION (CONTINUED)

operation. Safety shower should be located in immediate work area. Remove contaminated clothing immediately, wash skin area with soap and water, and launder clothing before reuse or dispose of properly. Items which cannot be decontaminated, such as shoes, belts, and watchbands, should be removed and disposed of properly.

RESPIRATORY PROTECTION: Use an approved respirator. Selection of air-purifying or positive-pressure supplied-air will depend on the specific operation and the potential airborne concentration of the material. For emergency conditions, use an approved positive-pressure self-contained breathing apparatus.

EXPOSURE GUIDELINES: None established.

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE/PHYSICAL STATE: Colorless liquid ODOR: Aromatic VAPOR PRESSURE: <5 mm Hg @ 68 F VAPOR DENSITY: (air=1) 7 BOILING POINT: 453 F SOLUBILITY IN WATER/MISCIBILITY: Negligible. SPECIFIC GRAVITY OR DENSITY: 0.858 pH: Essentially neutral. FREEZING/MELTING POINT: 12 F VISCOSITY: 3 cSt @ 100 F MOLECULAR WEIGHT: 204

10. STABILITY AND REACTIVITY

CHEMICAL STABILITY: Thermally stable at typical use temperatures.

- CONDITIONS TO AVOID: Exposure to elevated temperatures can cause product to decompose.
- INCOMPATIBILITY WITH OTHER MATERIALS: Avoid contact with oxidizing materials.
- HAZARDOUS DECOMPOSITION PRODUCTS: Decomposition products depend upon temperature, air supply and the presence of other materials.

HAZARDOUS POLYMERIZATION: Will not occur.

(Continued on Page 6)
\* or (R) Indicates a Trademark of The Dow Chemical Company

MATERIAL SAFETY DATA SHEET PAGE: 6 Product Name: DEVELOPER DS3000 Product Code: 50746 Effective Date: 06/11/04 Date Printed: 06/22/04 MSD: 005368

\_\_\_\_\_

11. TOXICOLOGICAL INFORMATION (See Section 3 for Potential Health Effects. For detailed toxicological data, write or call the address or non-emergency number shown in Section 1)

SKIN: The LD50 for skin absorption in rabbits is between 500-1000 mg/kg.

INGESTION: The oral LD50 for male rats is >2000 mg/Kg.

MUTAGENICITY: No relevant information found.

12. ECOLOGICAL INFORMATION (For detailed Ecological data, write or call the address or non-emergency number shown in Section 1)

ENVIRONMENTAL FATE

MOVEMENT & PARTITIONING: Bioconcentration potential is high (BCF >3000 or Log Pow between 5 and 7. Log octanol/water partition coefficient (log Pow) is estimated using a structural fragment method to be 6.36. Expected to be relatively immobile in soil (Koc >5000). Soil organic carbon/water partition coefficient (Koc) is estimated to be 20,000. Henry's Law Constant (H) is estimated to be 6.43E-02 atm-m3/mole.

DEGRADATION & PERSISTENCE: No relevant information found.

- ECOTOXICITY: Acute 96-h LC50 in freshwater fish, using the U.S. EPA ECOSAR program, is estimated to be 0.012 mg/L. Acute 48-h LC50 in daphnids, using the U.S. EPA ECOSAR program, is estimated to be 0.017 mg/L. Acute 96-h growth inhibition EC50 in freshwater green algae, using the U.S. EPA ECOSAR program, is estimated to be 0.014 mg/L.
- 13. DISPOSAL CONSIDERATIONS (See Section 15 for Regulatory Information)
  - DISPOSAL METHOD: DO NOT DUMP INTO ANY SEWERS, ON THE GROUND, OR INTO ANY BODY OF WATER. All disposal methods must be in compliance with all Federal, State/Provincial and local laws and regulation. Regulations may vary in different locations. Waste characterizations and compliance with applicable laws are the responsibility solely of the waste generator.

THE DOW CHEMICAL COMPANY HAS NO CONTROL OVER THE MANAGEMENT PRACTICES OR MANUFACTURING PROCESSES OF PARTIES HANDLING OR USING THIS MATERIAL. THE INFORMATION PRESENTED HERE PERTAINS (Continued on Page 7)
\* or (R) Indicates a Trademark of The Dow Chemical Company

MATERIAL SAFETY DATA SHEET	PAGE: 7
----------------------------	---------

Product Name: DEVELOPER DS3000 Product Code: 50746

Effective Date: 06/11/04 Date Printed: 06/22/04 MSD: 005368

\_\_\_\_\_

13. DISPOSAL CONSIDERATIONS (See Section 15 for Regulatory Information)

DESCRIBED IN SECTION 2 (Composition/Information On Ingredients).

FOR UNUSED OR UNCONTAMINATED PRODUCT, the preferred options include sending to a licensed, permitted recycler, reclaimer, 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 Customers Information Center at 800-258-2436 or 989-832-1556 for further details.

### 14. TRANSPORT INFORMATION

DEPARTMENT OF TRANSPORTATION (DOT): For regulatory information if required, consult transportation regulations, product shipping papers or contact your Dow representative.

CANADIAN TDG INFORMATION: For TDG regulatory information, if required, consult transportation regulations, product shipping papers or contact your Dow representative.

15. REGULATORY INFORMATION (Not meant to be all-inclusive--selected regulations represented)

NOTICE: The information herein is presented 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 from one location to another; it is the buyer's responsibility to ensure that its activities comply with federal, state or provincial, and local laws. The following specific information is made for the purpose of complying with numerous federal, state or provincial, and local laws and regulations. See other sections for health and safety information.

U.S. REGULATIONS

SARA 313 INFORMATION: To the best of our knowledge, this product contains no chemical subject to SARA Title III Section 313 supplier notification requirements.

(Continued on Page 8)
\* or (R) Indicates a Trademark of The Dow Chemical Company

MATERIAL SAFETY DATA SHEET PAGE: 8
Product Name: DEVELOPER DS3000
Product Code: 50746
Effective Date: 06/11/04 Date Printed: 06/22/04 MSD: 005368
\_\_\_\_\_\_

REGULATORY INFORMATION: (CONTINUED)

SARA HAZARD CATEGORY: This product has been reviewed according to the EPA "Hazard Categories" promulgated under Sections 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the following categories:

An immediate health hazard A fire hazard

TOXIC SUBSTANCES CONTROL ACT (TSCA):

All ingredients are on the TSCA inventory or are not required to be listed on the TSCA inventory.

STATE RIGHT-TO-KNOW: This product is not known to contain any substances subject to the disclosure requirements of

New Jersey Pennsylvania

OSHA HAZARD COMMUNICATION STANDARD:

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

CANADIAN REGULATIONS

WHMIS INFORMATION: The Canadian Workplace Hazardous Materials Information System (WHMIS) Classification for this product is:

B3 - combustible liquid with a flash point between 37.8C and 93.3C D1B - material is toxic with short exposure and moderate dose D2B - eye or skin irritant

DOW RESTRICTED - For internal use only

Refer elsewhere in the MSDS for specific warnings and safe handling information. Refer to the employer's (Continued on Page 9) \* or (R) Indicates a Trademark of The Dow Chemical Company MATERIAL SAFETY DATA SHEET PAGE: 9 Product Name: DEVELOPER DS3000 Product Code: 50746 Effective Date: 06/11/04 Date Printed: 06/22/04 MSD: 005368 \_\_\_\_\_ REGULATORY INFORMATION: (CONTINUED) workplace education program. - - - -CPR STATEMENT: This product has been classified in accordance with the hazard criteria of the Canadian Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR. \_ \_ \_ \_ \_ HAZARDOUS PRODUCTS ACT INFORMATION: This product contains the following ingredients which are Controlled Products and/or on the Ingredient Disclosure List (Canadian HPA section 13 and 14): COMPONENTS: CAS # AMOUNT (%w/w) 1,3,5-TRIS (1-METHYLETHYL) BENZENE 000717-74-8 95-100% (COMMON NAME: TRIISOPROPYL BENZENE) 1,2,4-TRIISOPROPYLBENZENE000948-32-31-5%1-ETHYL-3,5-DIISOPROPYLBENZENE015181-13-20.5-1.5% INDENES 1-3% 16. OTHER INFORMATION

REVISION INDICATOR: Revised Sections 2,3,4,5,6,7,9,10,12,15.

\* or (R) Indicates a Trademark of The Dow Chemical Company The Information Herein Is Given In Good Faith, But No Warranty, Express Or Implied, Is Made. Consult The Dow Chemical Company For Further Information.