SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : DeBlock T" a mixture of Methylene Chloride and Trichloroacetic Acid" (605)

MSDS Number : 000000011349

Product Use Description : Laboratory Use

Manufacturer or supplier's details : Honeywell International Inc.
101 Columbia Road
Morristown, NJ 07962-1057

For more information call : 1-800-368-0050
+1-231-726-3171
(Monday-Friday, 9:00am-5:00pm)

In case of emergency call : Medical: 1-800-498-5701 or +1-303-389-1414
Transportation (CHEMTREC): 1-800-424-9300 or +1-703-527-3887
(24 hours/day, 7 days/week)

SECTION 2. HAZARDS IDENTIFICATION

Emergency Overview

Form : liquid, clear
Color : colourless
Odor : mild sweet

Classification of the substance or mixture

Classification of the substance or mixture : Acute toxicity, Category 4, Dermal
Skin irritation, Category 2
Serious eye damage, Category 1
Carcinogenicity, Category 2

GHS Label elements, including precautionary statements

Symbol(s) : 

Signal word : Danger
Hazard statements : Harmful in contact with skin. 
Causes skin irritation. 
Causes serious eye damage. 
Suspected of causing cancer.

Precautionary statements : Prevention:
Obtain special instructions before use. 
Do not handle until all safety precautions have been read and understood. 
Wash skin thoroughly after handling. 
Wear protective gloves/ eye protection/ face protection.

Response:
IF ON SKIN: Wash with plenty of soap and water. 
IF IN EYES: Rinse cautiously with water for several minutes. 
Remove contact lenses, if present and easy to do. Continue rinsing. 
Immediately call a POISON CENTER or doctor/ physician. 
If skin irritation occurs: Get medical advice/ attention. 
Take off contaminated clothing and wash before reuse.

Storage:
Store locked up.

Disposal:
Dispose of contents/ container to an approved waste disposal plant.
NTP: Dichloromethane 75-09-2
Reasonably Anticipated to be a Human Carcinogen.

IARC: Dichloromethane 75-09-2
Group 2B: Possibly carcinogenic to humans

Trichloroacetic acid 76-03-9
Group 2B: Possibly carcinogenic to humans

ACGIH: Dichloromethane 75-09-2
A3: Confirmed animal carcinogen

Trichloroacetic acid 76-03-9
A3: Confirmed animal carcinogen

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical nature : Mixture

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS-No.</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dichloromethane</td>
<td>75-09-2</td>
<td>97.00 %</td>
</tr>
<tr>
<td>Trichloroacetic acid</td>
<td>76-03-9</td>
<td>3.00 %</td>
</tr>
</tbody>
</table>

SECTION 4. FIRST AID MEASURES

Inhalation : Call a physician immediately. Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Use oxygen as required, provided a qualified operator is present.

Skin contact : Wash off immediately with plenty of water for at least 15 minutes. Take off contaminated clothing and shoes immediately. Wash contaminated clothing before re-use. Call a physician immediately.
Eye contact : Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Call a physician immediately.

Ingestion : Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Call a physician immediately.

Notes to physician

Treatment : Treat symptomatically.

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media : Dry chemical
Carbon dioxide (CO2)
Foam
Cool closed containers exposed to fire with water spray.

Specific hazards during firefighting : This product is not flammable at ambient temperatures and atmospheric pressure.
In case of fire hazardous decomposition products may be produced such as:
Gaseous hydrogen chloride (HCl).
Phosgene
Chlorine (Cl2)
Carbon monoxide
Carbon dioxide (CO2)

Special protective equipment for firefighters : Wear self-contained breathing apparatus and protective suit.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions : Wear personal protective equipment.
Immediately evacuate personnel to safe areas.
Keep people away from and upwind of spill/leak.
Ensure adequate ventilation.
Remove all sources of ignition.
Isolate the affected area. Confine entry into the affected area to those persons properly protected (see Section 8 of MSDS).
Do not swallow.
Do not breathe vapours or spray mist.
Do not get in eyes, on skin, or on clothing.

Environmental precautions:
- Prevent further leakage or spillage if safe to do so.
- Do not let product enter drains.
- Discharge into the environment must be avoided.
- Do not flush into surface water or sanitary sewer system.
- Do not allow run-off from fire fighting to enter drains or water courses.

Methods for cleaning up:
- Ventilate the area.
- Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).
- Shovel into suitable container for disposal.
- Dispose of absorbed material in accordance with the regulations.

SECTION 7. HANDLING AND STORAGE

Handling

Handling:
- Wear personal protective equipment.
- Use only in well-ventilated areas.
- Keep container tightly closed.
- Do not swallow.
- Do not breathe vapours or spray mist.
- Do not get in eyes, on skin, or on clothing.

Advice on protection against fire and explosion:
- Normal measures for preventive fire protection.
- Keep product and empty container away from heat and sources of ignition.
- Fire or intense heat may cause violent rupture of packages.

Storage

Requirements for storage areas and containers:
- Keep containers tightly closed in a dry, cool and well-ventilated place.
- Containers which are opened must be carefully resealed and
kept upright to prevent leakage.
Keep away from heat and sources of ignition.
Keep away from direct sunlight.
Store away from incompatible substances.
Container hazardous when empty.

### SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

<table>
<thead>
<tr>
<th>Protective measures</th>
<th>Use with local exhaust ventilation.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Prevent vapour buildup by providing adequate ventilation during and after use.</td>
</tr>
<tr>
<td>Eye protection</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Do not wear contact lenses.</td>
</tr>
<tr>
<td></td>
<td>Wear as appropriate:</td>
</tr>
<tr>
<td></td>
<td>Safety glasses with side-shields</td>
</tr>
<tr>
<td></td>
<td>If splashes are likely to occur, wear:</td>
</tr>
<tr>
<td></td>
<td>Goggles or face shield, giving complete protection to eyes</td>
</tr>
<tr>
<td>Hand protection</td>
<td>Solvent-resistant gloves</td>
</tr>
<tr>
<td></td>
<td>Gloves must be inspected prior to use.</td>
</tr>
<tr>
<td></td>
<td>Replace when worn.</td>
</tr>
<tr>
<td>Skin and body protection</td>
<td>Wear as appropriate:</td>
</tr>
<tr>
<td></td>
<td>Solvent-resistant apron</td>
</tr>
<tr>
<td></td>
<td>Solvent-resistant gloves</td>
</tr>
<tr>
<td></td>
<td>If splashes are likely to occur, wear:</td>
</tr>
<tr>
<td></td>
<td>Protective suit</td>
</tr>
<tr>
<td>Respiratory protection</td>
<td>In case of insufficient ventilation wear suitable respiratory equipment.</td>
</tr>
<tr>
<td></td>
<td>For rescue and maintenance work in storage tanks use self-contained breathing apparatus.</td>
</tr>
<tr>
<td></td>
<td>Use NIOSH approved respiratory protection.</td>
</tr>
<tr>
<td>Hygiene measures</td>
<td>When using, do not eat, drink or smoke.</td>
</tr>
<tr>
<td></td>
<td>Wash hands before breaks and immediately after handling the product.</td>
</tr>
<tr>
<td></td>
<td>Keep working clothes separately.</td>
</tr>
<tr>
<td></td>
<td>Remove and wash contaminated clothing before re-use.</td>
</tr>
</tbody>
</table>
SAFETY DATA SHEET

DeBlock T" a mixture of Methylene Chloride and Trichloroacetic Acid"
(605)
000000011349

Version 1.6 Revision Date 04/23/2014 Print Date 12/04/2014

Do not swallow.  
Do not breathe vapours or spray mist.  
Do not get in eyes, on skin, or on clothing.  
This material has an established AIHA ERPG exposure limit.  
The current list of ERPG exposure limits can be found at  

### Exposure Guidelines

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Value</th>
<th>Control parameters</th>
<th>Update</th>
<th>Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dichloromethane</td>
<td>75-09-2</td>
<td>TWA : time weighted average</td>
<td>(50 ppm)</td>
<td>2008</td>
<td>ACGIH:US. ACGIH Threshold Limit Values</td>
</tr>
<tr>
<td>Dichloromethane</td>
<td>75-09-2</td>
<td>TWA : time weighted average</td>
<td>(25 ppm)</td>
<td>02</td>
<td>OSHASP:US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)</td>
</tr>
<tr>
<td>Dichloromethane</td>
<td>75-09-2</td>
<td>OSHA_Act : OSHA Action level:</td>
<td>(12.5 ppm)</td>
<td>02</td>
<td>OSHASP:US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)</td>
</tr>
</tbody>
</table>
### SAFETY DATA SHEET

**DeBlock T**" a mixture of Methylene Chloride and Trichloroacetic Acid" (605)

**000000011349**

**Version 1.6** Revision Date 04/23/2014  Print Date 12/04/2014

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#### SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Physical state</th>
<th>liquid, clear</th>
</tr>
</thead>
<tbody>
<tr>
<td>Color</td>
<td>colourless</td>
</tr>
<tr>
<td>Odor</td>
<td>mild sweet</td>
</tr>
<tr>
<td>Melting point/freezing point</td>
<td>-95 °C</td>
</tr>
</tbody>
</table>

---

#### Dichloromethane

<table>
<thead>
<tr>
<th>CAS No.</th>
<th>STEL : Short term exposure limit</th>
<th>Limit</th>
<th>Year</th>
<th>Agency</th>
</tr>
</thead>
<tbody>
<tr>
<td>75-09-2</td>
<td>(125 ppm)</td>
<td></td>
<td>02 2006</td>
<td>OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)</td>
</tr>
</tbody>
</table>

#### Trichloroacetic acid

<table>
<thead>
<tr>
<th>CAS No.</th>
<th>TWA : time weighted average</th>
<th>Limit</th>
<th>Year</th>
<th>Agency</th>
</tr>
</thead>
<tbody>
<tr>
<td>76-03-9</td>
<td>(1 ppm)</td>
<td></td>
<td>02 2008</td>
<td>ACGIH:US. ACGIH Threshold Limit Values</td>
</tr>
<tr>
<td>76-03-9</td>
<td>(0.5 ppm)</td>
<td></td>
<td>02 2012</td>
<td>ACGIHLIS_P:US. ACGIH Notice of Intended Changes (NIC) to Threshold Limit Values</td>
</tr>
<tr>
<td>76-03-9</td>
<td>REL : Recommended exposure limit (REL)</td>
<td>7 mg/m3 (1 ppm)</td>
<td>2005</td>
<td>NIOSH/GUIDE:US. NIOSH: Pocket Guide to Chemical Hazards</td>
</tr>
<tr>
<td>76-03-9</td>
<td>TWA : time weighted average</td>
<td>7 mg/m3 (1 ppm)</td>
<td>1989</td>
<td>Z1A:US. OSHA Table Z-1-A (29 CFR 1910.1000)</td>
</tr>
<tr>
<td>Property</td>
<td>Value</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>--------------------------------------</td>
<td>------------------------</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Boiling point/boiling range</td>
<td>40 °C</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flash point</td>
<td>Note: does not flash, closed cup</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lower explosion limit</td>
<td>12 % (V)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Note: The physical data is that of the main component.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Upper explosion limit</td>
<td>19 % (V)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Note: The physical data is that of the main component.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>466 hPa</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>at 20 °C (68 °F)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vapor density</td>
<td>2.9</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Note: (Air = 1.0)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Density</td>
<td>1.33 g/cm³ at 20 °C</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Water solubility</td>
<td>13.2 g/l at 25 °C</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ignition temperature</td>
<td>556 °C</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Method: The physical data is that of the main component.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**SECTION 10. STABILITY AND REACTIVITY**

Chemical stability : Stable under recommended storage conditions.
Possibility of hazardous reactions: Hazardous polymerisation does not occur.

Conditions to avoid:
- Heat, flames and sparks.
- Protect from extreme heat and cold.
- Keep away from direct sunlight.

Incompatible materials to avoid:
- Oxidizing agents
- Strong acids and strong bases
- Metals
- May attack many plastics, rubbers and coatings.

Hazardous decomposition products:
In case of fire hazardous decomposition products may be produced such as:
- Phosgene
- Hydrogen chloride gas
- Carbon monoxide
- Carbon dioxide (CO2)
- Chlorine

SECTION 11. TOXICOLOGICAL INFORMATION

Acute oral toxicity
Trichloroacetic acid: LD50: 3,310 - 6,900 mg/kg
Species: rat

Acute inhalation toxicity
Trichloroacetic acid: LC50: > 4800 ppm
Exposure time: 4 h
Species: rat

Acute dermal toxicity
Dichloromethane: LD50: > 2,000 mg/kg
Species: rat

Trichloroacetic acid: LD50: > 2,000 mg/kg
Species: rat
### Skin irritation
- **Dichloromethane**: Species: rabbit  
  Result: Moderate skin irritation
- **Trichloroacetic acid**: Species: rabbit  
  Result: Causes burns.  
  Classification: Corrosive

### Eye irritation
- **Dichloromethane**: Species: rabbit  
  Result: Moderate eye irritation

### Genotoxicity in vitro
- **Dichloromethane**: Test Method: Ames test  
  Result: positive
- **Trichloroacetic acid**: Note: In vitro tests did not show mutagenic effects  
  Test Method: In vitro gene mutation study in mammalian cells  
  Cell type: Chinese Hamster Ovary Cells  
  Result: positive  
  Test Method: Unscheduled DNA synthesis  
  Result: positive  
  Note: Liver cells mouse

### Genotoxicity in vivo
- **Trichloroacetic acid**: Result: positive negative

### Further information
- **Dichloromethane**: Note: Confirmed animal carcinogen with unknown relevance to humans.
- **Trichloroacetic acid**: Note: Confirmed animal carcinogen with unknown relevance to humans.
SECTION 12. ECOLOGICAL INFORMATION

Toxicity to fish
Dichloromethane

- static test
  - LC50: 310 mg/l
  - Exposure time: 96 h
  - Species: Pimephales promelas (fathead minnow)

- flow-through test
  - LC50: 193 mg/l
  - Exposure time: 96 h
  - Species: Pimephales promelas (fathead minnow)

- flow-through test
  - LC50: 10.95 mg/l
  - Exposure time: 96 h
  - Species: Oncorhynchus mykiss (rainbow trout)

- static test
  - LC50: 220 mg/l
  - Exposure time: 96 h
  - Species: Lepomis macrochirus (Bluegill sunfish)

Trichloroacetic acid

- LC50: 2,000 mg/l
  - Exposure time: 96 h
  - Species: Pimephales promelas (fathead minnow)

Toxicity to daphnia and other aquatic invertebrates
Dichloromethane

- static test
  - EC50: 140 mg/l
  - Exposure time: 48 h
  - Species: Daphnia magna (Water flea)

Trichloroacetic acid

- EC50: 2,000 mg/l
  - Exposure time: 48 h
  - Species: Daphnia magna (Water flea)
Toxicity to algae
Trichloroacetic acid : EC50: 0.3 mg/l
Exposure time: 14 d
Species: Chlorella pyrenoidosa

NOEC: 0.01 mg/l
Exposure time: 14 d
Species: Chlorella pyrenoidosa

Toxicity to bacteria
Dichloromethane : EC50: 1,000 mg/l
Exposure time: 15 min
Species: Photobacterium phosphoreum

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods : Observe all Federal, State, and Local Environmental regulations.

SECTION 14. TRANSPORT INFORMATION

DOT
UN/ID No.: UN 2922
Proper shipping name: CORROSIVE LIQUID, TOXIC, N.O.S. (Trichloroacetic acid, Dichloromethane)
Class: 8
Packing group: II
Hazard Labels: 8 (6.1)

IATA
UN/ID No.: UN 2922
Description of the goods: CORROSIVE LIQUID, TOXIC, N.O.S. (Trichloroacetic acid, Dichloromethane)
Class: 8
Packing group: II
Hazard Labels: 8 (6.1)
Packing instruction (cargo): 855
### Safety Data Sheet

**DeBlock T" a mixture of Methylene Chloride and Trichloroacetic Acid" (605)**

**000000011349**

**Version 1.6**  
Revision Date 04/23/2014  
Print Date 12/04/2014

<table>
<thead>
<tr>
<th>Aircraft</th>
<th>Packing instruction (passenger aircraft)</th>
<th>851</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Packing instruction (passenger aircraft)</td>
<td>Y840</td>
</tr>
</tbody>
</table>

**IMDG**

<table>
<thead>
<tr>
<th>UN/ID No.</th>
<th>CORROSIVE LIQUID, TOXIC, N.O.S. (TRICHLOROACETIC ACID, DICHLOROMETHANE)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description of the goods</td>
<td></td>
</tr>
</tbody>
</table>

| Class | 8 |
|包装群 | II |
|危险标签 | 8 (6.1) |
|EmS Number | F-A, S-B |
|海洋污染物 | no |

### Section 15. Regulatory Information

**Inventories**

- **US. Toxic Substances Control Act**: On TSCA Inventory
- **Australia. Industrial Chemical (Notification and Assessment) Act**: On the inventory, or in compliance with the inventory
- **Canada. Canadian Environmental Protection Act (CEPA). Domestic Substances List (DSL)**: All components of this product are on the Canadian DSL.
- **Japan. Kashin-Hou Law List**: On the inventory, or in compliance with the inventory
- **Korea. Toxic Chemical Control Law (TCCL) List**: On the inventory, or in compliance with the inventory
- **Philippines. The Toxic Substances and Hazardous and Nuclear Waste Control Act**: On the inventory, or in compliance with the inventory
China. Inventory of Existing Chemical Substances: On the inventory, or in compliance with the inventory

New Zealand. Inventory of Chemicals (NZIoC), as published by ERMA New Zealand: On the inventory, or in compliance with the inventory

National regulatory information

US. EPA CERCLA Hazardous Substances (40 CFR 302): The following component(s) of this product is/are subject to release reporting under 40 CFR 302 when release exceeds the Reportable Quantity (RQ):

- Reportable quantity: 1000 lbs
  - Dichloromethane 75-09-2

SARA 302 Components: SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components: The following components are subject to reporting levels established by SARA Title III, Section 313:

- Dichloromethane 75-09-2

SARA 311/312 Hazards: Acute Health Hazard

CERCLA Reportable Quantity: 1031 lbs

California Prop. 65: WARNING! This product contains a chemical known to the State of California to cause cancer.

- Dichloromethane 75-09-2
- Trichloroacetic acid 76-03-9

Massachusetts RTK: Dichloromethane 75-09-2

Trichloroacetic acid 76-03-9
DeBlock T" a mixture of Methylene Chloride and Trichloroacetic Acid"
(605)

New Jersey RTK : Dichloromethane 75-09-2
: Trichloroacetic acid 76-03-9

Pennsylvania RTK : Dichloromethane 75-09-2
: Trichloroacetic acid 76-03-9

WHMIS Classification : D1B: Toxic Material Causing Immediate and Serious Toxic Effects
D2A: Very Toxic Material Causing Other Toxic Effects
D2B: Toxic Material Causing Other Toxic Effects
E: Corrosive Material
This product has been classified according to the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR.

SECTION 16. OTHER INFORMATION

<table>
<thead>
<tr>
<th></th>
<th>HMIS III</th>
<th>NFPA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health hazard</td>
<td>3*</td>
<td>3</td>
</tr>
<tr>
<td>Flammability</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Physical Hazard</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Instability</td>
<td></td>
<td>1</td>
</tr>
</tbody>
</table>

* - Chronic health hazard

Hazard rating and rating systems (e.g. HMIS® III, NFPA): This information is intended solely for the use of individuals trained in the particular system.

Further information

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. Final determination of suitability of any material is the sole responsibility of the user. This information should not constitute a guarantee for any specific product properties.
DeBlock T" a mixture of Methylene Chloride and Trichloroacetic Acid"
(605)

000000011349

Version 1.6 Revision Date 04/23/2014 Print Date 12/04/2014

Changes since the last version are highlighted in the margin. This version replaces all previous versions.
Previous Issue Date: 09/16/2013
Prepared by Honeywell Performance Materials and Technologies  Product Stewardship Group