

UNION CARBIDE

CHEMICAL NAME: DIISOPROPYLAMINE

SYNONYMS: —

CHEMICAL FAMILY: Nitrogen Compounds

FORMULA:  $[(CH_3)_2CH]_2NH$ 

MOLECULAR WEIGHT: 101.19

TRADE NAME AND SYNONYMS: Diisopropylamine

## I. PHYSICAL DATA

|                                         |                                 |                                           |                                                       |
|-----------------------------------------|---------------------------------|-------------------------------------------|-------------------------------------------------------|
| BOILING POINT, 760 mm. Hg               | 83.9°C. (183.0°F.)              | FREEZING POINT                            | -96.3°C.                                              |
| SPECIFIC GRAVITY (H <sub>2</sub> O = 1) | 0.7173 at 20/20°C.              | VAPOR PRESSURE AT 20°C.                   | 60 mm. Hg                                             |
| VAPOR DENSITY (air = 1)                 | 3.5                             | SOLUBILITY<br>IN WATER, % by wt. at 20°C. | Complete*                                             |
| PER CENT VOLATILES<br>BY VOLUME         | 100                             | EVAPORATION RATE<br>(Butyl Acetate = 1)   | 5.8                                                   |
| APPEARANCE AND ODOR                     | Water-white liquid; amine odor. |                                           | *Not miscible above 27°C.<br>and 30% amine by weight. |

## II. HAZARDOUS INGREDIENTS

| MATERIAL       | % | TLV (Units) |
|----------------|---|-------------|
| Not applicable |   |             |
|                |   |             |
|                |   |             |
|                |   |             |

## III. FIRE AND EXPLOSION HAZARD DATA

|                                       |                                                                                       |                             |        |       |     |
|---------------------------------------|---------------------------------------------------------------------------------------|-----------------------------|--------|-------|-----|
| FLASH POINT<br>(test method)          | 21°F., Tag open cup                                                                   | AUTOIGNITION<br>TEMPERATURE | 600°F. |       |     |
| FLAMMABLE LIMITS IN AIR, % by volume  |                                                                                       | LOWER                       | 0.8    | UPPER | 7.1 |
| EXTINGUISHING<br>MEDIA                | Carbon dioxide or dry chemical for small fires.<br>Polymer type foam for large fires. |                             |        |       |     |
| SPECIAL FIRE FIGHTING<br>PROCEDURES   | None                                                                                  |                             |        |       |     |
| UNUSUAL FIRE AND<br>EXPLOSION HAZARDS | None                                                                                  |                             |        |       |     |

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## EMERGENCY PHONE NUMBERS

Dr. C. U. Dernehl, 212/551-4785; 914/946-0646 (night)  
Dr. K. S. Lane, 212/551-4787; 914/666-3656 (night)  
C. P. Carpenter, Ph.D., 412/327-1020; 412/241-7896 (night)

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Legal responsibility is assumed only for the fact that all studies reported here and all opinions are those of qualified experts.

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## IV. HEALTH HAZARD DATA

|                                    |                                                                                                                                                                                                                                                                             |
|------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| THRESHOLD LIMIT VALUE              | 5 ppm.                                                                                                                                                                                                                                                                      |
| EFFECTS OF OVEREXPOSURE            | Vapors will be irritating, and may also cause nausea and vomiting. Contact of liquid with eyes causes severe injury. Uncovered contact with skin may be irritating, but clothing wet with the amine may cause burns.                                                        |
| EMERGENCY AND FIRST AID PROCEDURES | If inhaled, remove to fresh air. Give oxygen if breathing is difficult. Call a physician. Immediately flush eye contact with plenty of water for at least 15 minutes, and then get medical care. Flush skin contact with water. Remove contaminated clothing and wash skin. |

## V. REACTIVITY DATA

|                                      |                |                                                                                           |                                |
|--------------------------------------|----------------|-------------------------------------------------------------------------------------------|--------------------------------|
| STABILITY                            |                | CONDITIONS TO AVOID                                                                       | Avoid heat, fires, and sparks. |
| UNSTABLE                             | STABLE         |                                                                                           |                                |
| —                                    | ✓              |                                                                                           |                                |
| INCOMPATIBILITY (materials to avoid) |                | Avoid contamination with strong acids.                                                    |                                |
| HAZARDOUS DECOMPOSITION PRODUCTS     |                | Thermal decomposition may produce nitrogen oxides, carbon monoxide and/or carbon dioxide. |                                |
| HAZARDOUS POLYMERIZATION             |                | CONDITIONS TO AVOID                                                                       | None                           |
| May Occur                            | Will not Occur |                                                                                           |                                |
| —                                    | ✓              |                                                                                           |                                |

## VI. SPILL OR LEAK PROCEDURES

|                                                |                           |
|------------------------------------------------|---------------------------|
| STEPS TO BE TAKEN MATERIAL IS RELEASED SPILLED | Flush heavily with water. |
| WASTE DISPOSAL METHOD                          | Incinerate in a furnace.  |

## VII. SPECIAL PROTECTION INFORMATION

|                                       |                             |                |             |
|---------------------------------------|-----------------------------|----------------|-------------|
| RESPIRATORY PROTECTION (specify type) | Air-supplied mask           |                |             |
| VENTILATION                           | LOCAL EXHAUST               | Preferred      | SPECIAL —   |
|                                       | MECHANICAL (general)        | Acceptable     | OTHER —     |
| PROTECTIVE GLOVES                     | Plastic                     | EYE PROTECTION | Monogoggles |
| OTHER PROTECTIVE EQUIPMENT            | Safety shower and eye bath. |                |             |

## VIII. SPECIAL PRECAUTIONS

|                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|---------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| PRECAUTIONARY LABELING                | <p style="text-align: center;"><b>DIISOPROPYLAMINE</b></p> <p style="text-align: center;"><b>WARNING! FLAMMABLE. LIQUID MAY CAUSE EYE INJURY AND SKIN IRRITATION. BREATHING OF VAPOR HARMFUL.</b></p> <p>Keep away from heat, sparks, and fire. Do not leave container open. Use with adequate ventilation. Do not get in eyes or on skin. Do not breathe vapor. In case of contact with eyes or skin, immediately flush with plenty of water for at least 15 minutes; for eyes, get medical attention.</p> <p style="text-align: center;"><b>FOR INDUSTRY USE ONLY</b></p> |
|                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| OTHER HANDLING AND STORAGE CONDITIONS |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |

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