# Dow AgroSciences

# **Material Safety Data Sheet**

**Dow AgroSciences LLC** 

Product Name: DIMENSION (TM) 2EW Herbicide Issue Date: 07/15/2014
Print Date: 15 Jul 2014

Dow AgroSciences LLC 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.

# 1. Product and Company Identification

#### **Product Name**

DIMENSION ™ 2EW Herbicide

## **COMPANY IDENTIFICATION**

Dow AgroSciences LLC A Subsidiary of The Dow Chemical Company 9330 Zionsville Road Indianapolis, IN 46268-1189 United States

Customer Information Number: 800-992-5994

info@dow.com

#### **EMERGENCY TELEPHONE NUMBER**

**24-Hour Emergency Contact:** 800-992-5994 **Local Emergency Contact:** 352-323-3500

# 2. Hazards Identification

#### **Emergency Overview**

Color: Tan

Physical State: Liquid.

Odor: Mild

Hazards of product:

WARNING! May cause allergic skin reaction. May cause eye irritation. May cause skin irritation. Isolate area. Toxic fumes may be released in fire situations. Highly toxic to fish and/or other aquatic organisms.

#### **OSHA Hazard Communication Standard**

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

#### **Potential Health Effects**

Eye Contact: May cause slight eye irritation. May cause slight corneal injury.

**Skin Contact:** Brief contact may cause moderate skin irritation with local redness. May cause peeling of the skin.

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**Skin Absorption:** Prolonged skin contact is unlikely to result in absorption of harmful amounts. **Skin Sensitization:** Has demonstrated the potential for contact allergy in mice.

**Inhalation:** No adverse effects are anticipated from single exposure to mist. Based on the available data, narcotic effects were not observed. Based on the available data, respiratory irritation was not observed.

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**Ingestion:** Very low toxicity if swallowed. Harmful effects not anticipated from swallowing small amounts.

**Aspiration hazard:** Based on physical properties, not likely to be an aspiration hazard. **Effects of Repeated Exposure:** For the active ingredient(s): In animals, effects have been reported on the following organs: Liver. Kidney. Blood. Thyroid. Adrenal gland. Gall bladder. For the minor component(s): In animals, effects have been reported on the following organs: Kidney. Liver. Spleen. Blood. Central nervous system. Symptoms of excessive exposure may be anesthetic or narcotic effects; dizziness and drowsiness may be observed.

**Birth Defects/Developmental Effects:** Excessive ingestion of 2-ethylhexanol caused birth defects in laboratory animals only at doses toxic to the mother. Occupational exposure to 2-ethylhexanol by the inhalation or dermal routes poses no significant threat to the offspring. In laboratory animals, toluene has been toxic to the fetus at doses toxic to the mother; it has caused birth defects in mice when administered orally, but not by inhalation. Contains component(s) which, in laboratory animals, have been toxic to the fetus only at doses toxic to the mother.

**Reproductive Effects:** For the minor component(s): Cyclohexanone caused reduced growth and survival of offspring in an animal reproduction study. Dose levels producing this effect also caused central nervous system effects in parental animals. In animal studies, has been shown to interfere with reproduction in males. Effects have been seen only at doses that produced significant toxicity to the parent animals.

# 3. Composition Information

| Component      | CAS#          | Amount |
|----------------|---------------|--------|
| Dithiopyr      | 97886-45-8    | 24.0 % |
| Cyclohexanone  | 108-94-1      | 13.0 % |
| 2-Ethylhexanol | 104-76-7      | 1.9 %  |
| Toluene        | 108-88-3      | 0.1 %  |
| Balance        | Not available | 61.0 % |

## 4. First-aid measures

#### **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.

**Inhalation:** Move person to fresh air. If person is not breathing, call an emergency responder or ambulance, then give artificial respiration; if by mouth to mouth use rescuer protection (pocket mask etc). Call a poison control center or doctor for treatment advice.

**Skin Contact:** Take off contaminated clothing. Wash skin with soap and plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice. Wash clothing before reuse. Shoes and other leather items which cannot be decontaminated should be disposed of properly. **Eye Contact:** Hold eyes open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eyes. Call a poison control center or doctor for treatment advice. Suitable emergency eye wash facility should be available in work area.

**Ingestion:** Immediately call a poison control center or doctor. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give any liquid to the person. Do not give anything by mouth to an unconscious person.

Most important symptoms and effects, both acute and delayed

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Aside from the information found under Description of first aid measures (above) and Indication of immediate medical attention and special treatment needed (below), any additional important symptoms and effects are described in Section 11: Toxicology Information.

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# Indication of immediate medical attention and special treatment needed

No specific antidote. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient. Have the Safety Data Sheet, and if available, the product container or label with you when calling a poison control center or doctor, or going for treatment.

# 5. Fire Fighting Measures

# Suitable 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.

**Extinguishing Media to Avoid:** Do not use direct water stream. May spread fire.

# Special hazards arising from the substance or mixture

**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: Sulfur oxides. Nitrogen oxides. Hydrogen fluoride. Carbon monoxide. Carbon dioxide.

**Unusual Fire and Explosion Hazards:** Container may rupture from gas generation in a fire situation. Violent steam generation or eruption may occur upon application of direct water stream to hot liquids. When product is stored in closed containers, a flammable atmosphere can develop.

#### Advice for firefighters

Fire Fighting Procedures: Keep people away. Isolate fire and deny unnecessary entry. Consider feasibility of a controlled burn to minimize environment damage. Foam fire extinguishing system is preferred because uncontrolled water can spread possible contamination. Use water spray to cool fire exposed containers and fire affected zone until fire is out and danger of reignition has passed. Fight fire from protected location or safe distance. Consider the use of unmanned hose holders or monitor nozzles. Immediately withdraw all personnel from the area in case of rising sound from venting safety device or discoloration of the container. Burning liquids may be extinguished by dilution with water. Do not use direct water stream. May spread fire. Move container from fire area if this is possible without hazard. Burning liquids may be moved by flushing with water to protect personnel and minimize property damage. 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 (M)SDS.

**Special Protective Equipment for Firefighters:** Wear positive-pressure self-contained breathing apparatus (SCBA) and protective fire fighting clothing (includes fire fighting helmet, coat, trousers, boots, and gloves). Avoid contact with this material during fire fighting operations. If contact is likely, change to full chemical resistant fire fighting clothing with self-contained breathing apparatus. If this is not available, wear full chemical resistant clothing with self-contained breathing apparatus and fight fire from a remote location. For protective equipment in post-fire or non-fire clean-up situations, refer to the relevant sections.

## 6. Accidental Release Measures

**Personal precautions, protective equipment and emergency procedures:** Isolate area. Keep unnecessary and unprotected personnel from entering the area. Refer to Section 7, Handling, for additional precautionary measures. Use appropriate safety equipment. For additional information, refer to Section 8, Exposure Controls and Personal Protection. Keep upwind of spill. Ventilate area of leak or spill.

**Environmental precautions:** Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. See Section 12, Ecological Information. Spills or discharge to natural waterways is likely to kill aquatic organisms.

**Methods and materials for containment and cleaning up:** Contain spilled material if possible. Small spills: Absorb with materials such as: Clay. Dirt. Sand. Sweep up. Collect in suitable and

properly labeled containers. Large spills: Contact Dow AgroSciences for clean-up assistance. See Section 13, Disposal Considerations, for additional information.

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# 7. Handling and Storage

#### Handling

**General Handling:** Keep out of reach of children. Avoid contact with eyes, skin, and clothing. Avoid breathing vapor or mist. Avoid prolonged or repeated contact with skin. Use with adequate ventilation. Wash thoroughly after handling. Keep container closed. See Section 8, EXPOSURE CONTROLS AND PERSONAL PROTECTION.

#### Storage

Store in a dry place. Store in original container. Keep container tightly closed when not in use. Do not store near food, foodstuffs, drugs or potable water supplies.

# 8. Exposure Controls / Personal Protection

| <b>Exposure Limits</b> |
|------------------------|
|------------------------|

| Component     | List                                           | Туре                               | Value                                                          |
|---------------|------------------------------------------------|------------------------------------|----------------------------------------------------------------|
| Toluene       | ACGIH<br>OSHA/Z2<br>OSHA/Z2<br>OSHA/Z2         | TWA<br>TWA<br>Ceiling<br>MAX. CONC | 20 ppm BEI<br>200 ppm<br>300 ppm<br>500 ppm 10 minutes         |
| Cyclohexanone | ACGIH<br>ACGIH<br>OSHA Table<br>Z-1<br>Dow IHG | TWA<br>STEL<br>PEL<br>TWA          | 20 ppm SKIN<br>50 ppm SKIN<br>200 mg/m3 50 ppm<br>7.5 ppm SKIN |
| Dithiopyr     | Dow IHG                                        | TWA                                | 0.25 mg/m3                                                     |

RECOMMENDATIONS IN THIS SECTION ARE FOR MANUFACTURING, COMMERCIAL BLENDING AND PACKAGING WORKERS. APPLICATORS AND HANDLERS SHOULD SEE THE PRODUCT LABEL FOR PROPER PERSONAL PROTECTIVE EQUIPMENT AND CLOTHING. A BEI notation following the exposure guideline refers to a guidance value for assessing biological monitoring results as an indicator of the uptake of a substance from all routes of exposures. A "skin" notation following the inhalation exposure guideline refers to the potential for dermal absorption of the material including mucous membranes and the eyes either by contact with vapors or by direct skin contact.

It is intended to alert the reader that inhalation may not be the only route of exposure and that measures to minimize dermal exposures should be considered.

#### **Personal Protection**

Eye/Face Protection: Use chemical goggles.

**Skin Protection:** Use chemical protective clothing resistant to this material, when there is any possibility of skin contact. Wear a face-shield which allows use of chemical goggles, or wear a full-face respirator, to protect face and eyes when there is any likelihood of splashes.

Hand protection: Use gloves, chemically resistant to this material, at all times. Examples of preferred glove barrier materials include: Polyethylene. Ethyl vinyl alcohol laminate ("EVAL"). Examples of acceptable glove barrier materials include: Viton. Butyl rubber. Neoprene. Chlorinated polyethylene. Natural rubber ("latex"). Polyvinyl chloride ("PVC" or "vinyl"). Nitrile/butadiene rubber ("nitrile" or "NBR"). NOTICE: The selection of a specific glove for a particular application and duration of use in a workplace should also take into account all

relevant workplace factors such as, but not limited to: Other chemicals which may be handled, physical requirements (cut/puncture protection, dexterity, thermal protection), potential body reactions to glove materials, as well as the instructions/specifications provided by the glove supplier.

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**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. The following should be effective types of air-purifying respirators: Organic vapor cartridge with a particulate pre-filter.

**Ingestion:** Use good personal hygiene. Do not consume or store food in the work area. Wash hands before smoking or eating.

## **Engineering Controls**

**Ventilation:** 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.

# 9. Physical and Chemical Properties

**Appearance** 

Physical StateLiquid.ColorTanOdorMild

pH 4.57 (@ 1 %) pH Electrode (1% aqueous suspension)

Melting Point Not applicable

Freezing Point No test data available Boiling Point (760 mmHg) No test data available.

Flash Point - Closed Cup > 100 °C (> 212 °F) Pensky-Martens Closed Cup ASTM D 93

**Evaporation Rate (Butyl** No test data available

Acetate = 1)

Flammable Limits In Air

Lower: No test data available
Upper: No test data available

Vapor Pressure No test data available Vapor Density (air = 1) No test data available

Specific Gravity (H2O = 1) 1.001 Digital Density Meter (Oscillating Coil)

Solubility in water (by emulsifiable

weight)

No data available for this product. See Section 12 for individual

octanol/water (log Pow) component data.

Autoignition Temperature No test data available

No test data available

Temperature

Partition coefficient, n-

Dynamic Viscosity 34.3 mPa.s @ 20 ℃ Kinematic Viscosity No test data available

**Liquid Density** 1 g/cm3 @ 20 ℃ *Digital density meter* 

# 10. Stability and Reactivity

#### Reactivity

No dangerous reaction known under conditions of normal use.

#### Chemical stability

Stable under recommended storage conditions. See Storage, Section 7.

## Possibility of hazardous reactions

Polymerization will not occur.

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**Conditions to Avoid:** Exposure to elevated temperatures can cause product to decompose. Generation of gas during decomposition can cause pressure in closed systems.

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Incompatible Materials: Avoid contact with: Acids. Amines. Oxidizers.

# **Hazardous decomposition products**

Decomposition products depend upon temperature, air supply and the presence of other materials. Decomposition products can include and are not limited to: Hydrogen fluoride. Nitrogen oxides. Sulfur oxides.

# 11. Toxicological Information

## **Acute Toxicity**

Ingestion

As product: LD50, rat > 5,000 mg/kg

**Dermal** 

As product: LD50, rabbit > 5,000 mg/kg

Inhalation

As product: LC50, 4 h, Other, rat, male and female > 5.41 mg/l

Eye damage/eye irritation

May cause slight eye irritation. May cause slight corneal injury.

Skin corrosion/irritation

Brief contact may cause moderate skin irritation with local redness. May cause peeling of the skin.

#### Sensitization

Skin

Has demonstrated the potential for contact allergy in mice.

#### Respiratory

No relevant data found.

## **Repeated Dose Toxicity**

For the active ingredient(s): In animals, effects have been reported on the following organs: Liver. Kidney. Blood. Thyroid. Adrenal gland. Gall bladder. For the minor component(s): In animals, effects have been reported on the following organs: Kidney. Liver. Spleen. Blood. Central nervous system. Symptoms of excessive exposure may be anesthetic or narcotic effects; dizziness and drowsiness may be observed.

### **Chronic Toxicity and Carcinogenicity**

Active ingredient did not cause cancer in laboratory animals.

#### **Carcinogenicity Classifications:**

| Component                                       | List | Classification                         |
|-------------------------------------------------|------|----------------------------------------|
| Cyclohexanone ACGIH Confirmed animal carcinoger |      | Confirmed animal carcinogen with       |
| -                                               |      | unknown relevance to humans.: Group A3 |

# **Developmental Toxicity**

For the active ingredient(s): Did not cause birth defects or other effects in the fetus even at doses which caused toxic effects in the mother. Excessive ingestion of 2-ethylhexanol caused birth defects in laboratory animals only at doses toxic to the mother. Occupational exposure to 2-ethylhexanol by the inhalation or dermal routes poses no significant threat to the offspring. In laboratory animals, toluene has been toxic to the fetus at doses toxic to the mother; it has caused birth defects in mice when administered orally, but not by inhalation. Contains component(s) which, in laboratory animals, have been toxic to the fetus only at doses toxic to the mother. Contains component(s) which did not cause birth defects in laboratory animals. The component(s) is/are: Cyclohexanone.

# **Reproductive Toxicity**

In animal studies, active ingredient did not interfere with reproduction. For the minor component(s): Cyclohexanone caused reduced growth and survival of offspring in an animal reproduction study. Dose levels producing this effect also caused central nervous system effects in parental animals. In animal studies, has been shown to interfere with reproduction in males. Effects have been seen only at doses that produced significant toxicity to the parent animals.

# **Genetic Toxicology**

For the active ingredient(s): In vitro genetic toxicity studies were negative. Animal genetic toxicity studies were negative. For the minor component(s): In vitro genetic toxicity studies were negative in some cases and positive in other cases. Animal genetic toxicity studies were inconclusive

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# 12. Ecological Information

## **Toxicity**

Material is highly toxic to aquatic organisms on an acute basis (LC50/EC50 between 0.1 and 1 mg/L in the most sensitive species tested).

#### Fish Acute & Prolonged Toxicity

LC50, Cyprinus carpio (Carp), semi-static test, 96 h: 3.0 mg/l

#### **Aguatic Invertebrate Acute Toxicity**

EC50, Daphnia magna (Water flea), semi-static test, 48 h, immobilization: 4.9 mg/l

#### **Aquatic Plant Toxicity**

ErC50, Pseudokirchneriella subcapitata (green algae), static test, Growth rate inhibition, 72 h: 0.15 mg/l

#### Persistence and Degradability

Data for Component: Dithiopyr

Biodegradation may occur under aerobic conditions (in the presence of oxygen).

## Data for Component: Cyclohexanone

Material is readily biodegradable. Passes OECD test(s) for ready biodegradability.

# **OECD Biodegradation Tests:**

| Biodegradation                             | Exposure Time | Method         | 10 Day Window  |
|--------------------------------------------|---------------|----------------|----------------|
| 87 %                                       | 14 d          | OECD 301C Test | Not applicable |
| Indirect Photodegradation with OH Radicals |               |                |                |
| Rate Constant                              | Atmosphe      | ric Half-life  | Method         |
| 1.21E-11 cm3/s                             | 10.           | 6 h            | Estimated.     |

Theoretical Oxygen Demand: 2.61 mg/g

# Data for Component: 2-Ethylhexanol

Material is readily biodegradable. Passes OECD test(s) for ready biodegradability. Material is ultimately biodegradable (reaches > 70% biodegradation in OECD test(s) for inherent biodegradability).

# **OECD Biodegradation Tests:**

|   | Biodegradation | Exposure Time | Method         | 10 Day Window  |
|---|----------------|---------------|----------------|----------------|
| I | 68 %           | 17 d          | OECD 301B Test | pass           |
| I | > 95 %         | 5 d           | OECD 302B Test | Not applicable |

# Indirect Photodegradation with OH Radicals Rate Constant Atmospheric Half-life

| 1.32E-11 cm3/s        | 9.          | 7 h       | Estimated. |
|-----------------------|-------------|-----------|------------|
| Biological oxygen der | mand (BOD): |           |            |
| BOD 5                 | BOD 10      | BOD 20    | BOD 28     |
| 26 - 70 %             | 75 - 81 %   | 86 - 87 % |            |

Chemical Oxygen Demand: 2.70 mg/mg Theoretical Oxygen Demand: 2.95 mg/mg

#### Data for Component: Toluene

Material is readily biodegradable. Passes OECD test(s) for ready biodegradability.

# OECD Biodegradation Tests:

| Biodegradation                             | Exposure rime | wethod         | TO Day Willidow |
|--------------------------------------------|---------------|----------------|-----------------|
| 100 %                                      | 14 d          | OECD 301C Test | Not applicable  |
| Indirect Photodegradation with OH Radicals |               |                |                 |
| Rate Constant                              | Atmosphe      | ric Half-life  | Method          |
| 5.23E-12 cm3/s                             | 2             | d              | Estimated.      |

Mathad

Theoretical Oxygen Demand: 3.13 mg/mg

# **Bioaccumulative potential**

Method

10 Day Window

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## Data for Component: Dithiopyr

**Bioaccumulation:** Bioconcentration potential is moderate (BCF between 100 and 3000 or Log Pow between 3 and 5).

Partition coefficient, n-octanol/water (log Pow): 4.75 Measured

# Data for Component: Cyclohexanone

**Bioaccumulation:** Bioconcentration potential is low (BCF < 100 or Log Pow < 3).

Partition coefficient, n-octanol/water (log Pow): 0.81 Measured

#### Data for Component: 2-Ethylhexanol

Bioaccumulation: Bioconcentration potential is moderate (BCF between 100 and 3000 or Log

Pow between 3 and 5).

Partition coefficient, n-octanol/water (log Pow): 2.9 Measured

#### Data for Component: Toluene

**Bioaccumulation:** Bioconcentration potential is low (BCF < 100 or Log Pow < 3).

Partition coefficient, n-octanol/water (log Pow): 2.73 Measured

Bioconcentration Factor (BCF): 13.2 - 90; Fish; Measured

## Mobility in soil

#### Data for Component: Dithiopyr

**Mobility in soil:** Expected to be relatively immobile in soil (Koc > 5000)., Given its very low Henry's constant, volatilization from natural bodies of water or moist soil is not expected to be an important fate process.

Partition coefficient, soil organic carbon/water (Koc): 20,500Henry's Law Constant (H):

1.51E-09 atm\*m3/mole; 25 ℃ Measured

#### Data for Component: Cyclohexanone

Mobility in soil: Potential for mobility in soil is very high (Koc between 0 and 50).

Partition coefficient, soil organic carbon/water (Koc): 15 Estimated.

Henry's Law Constant (H): 1.04E-05 atm\*m3/mole Measured

# Data for Component: 2-Ethylhexanol

**Mobility in soil:** Potential for mobility in soil is low (Koc between 500 and 2000).

Partition coefficient, soil organic carbon/water (Koc): 800 Estimated.

Henry's Law Constant (H): 2.49E-05 atm\*m3/mole Estimated.

## Data for Component: Toluene

**Mobility in soil:** Potential for mobility in soil is very high (Koc between 0 and 50).

Partition coefficient, soil organic carbon/water (Koc): 37 - 178 Estimated.

Henry's Law Constant (H): 6.46E-03 atm\*m3/mole; 25 ℃ Estimated.

# 13. Disposal Considerations

If wastes and/or containers cannot be disposed of according to the product label directions, disposal of this material must be in accordance with your local or area regulatory authorities. This information presented below only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations. If the material as supplied becomes a waste, follow all applicable regional, national and local laws.

# 14. Transport Information

# **DOT Non-Bulk**

**NOT REGULATED** 

# **DOT Bulk**

Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

Technical Name: DITHIOPYR, CYCLOHEXANONE

Product Name: DIMENSION (TM) 2EW Herbicide Issue Date: 07/15/2014

Hazard Class: 9 ID Number: UN3082 Packing Group: PG III

**IMDG** 

Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCES, LIQUID, N.O.S

Technical Name: DITHIOPYR

Hazard Class: 9 ID Number: UN3082 Packing Group: PG III

**EMS Number:** F-A,S-F **Marine pollutant:** Yes

#### ICAO/IATA

Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCES, LIQUID, N.O.S

Technical Name: DITHIOPYR

Hazard Class: 9 ID Number: UN3082 Packing Group: PG III

Cargo Packing Instruction: 964
Passenger Packing Instruction: 964

**Additional Information** 

Reportable quantity: 38,462 lb - CYCLOHEXANONE

#### MARINE POLLUTANT (DITHIOPYR)

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

## **OSHA Hazard Communication Standard**

This product is 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) Sections 311 and 312

| Immediate (Acute) Health Hazard   | Yes |
|-----------------------------------|-----|
| Delayed (Chronic) Health Hazard   | Yes |
| Fire Hazard                       | No  |
| Reactive Hazard                   | No  |
| Sudden Release of Pressure Hazard | No  |

# Superfund Amendments and Reauthorization Act of 1986 Title III (Emergency Planning and Community Right-to-Know Act of 1986) Section 313

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

# 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.

| Component      | CAS#     | Amount |  |
|----------------|----------|--------|--|
| Cyclohexanone  | 108-94-1 | 13.0%  |  |
| 2-Ethylhexanol | 104-76-7 | 1.9%   |  |
| Toluene        | 108-88-3 | 0.1%   |  |

# Pennsylvania (Worker and Community Right-To-Know Act): Pennsylvania Special Hazardous Substances List:

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

#### California Proposition 65 (Safe Drinking Water and Toxic Enforcement Act of 1986)

Product Name: DIMENSION (TM) 2EW Herbicide

WARNING: This product contains a chemical(s) known to the State of California to cause birth defects or other reproductive harm.

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#### **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

# 16. Other Information

Hazard Rating System
NFPA Health

Health Fire Reactivity
2 1 0

#### Revision

Identification Number: 1002627 / 1016 / Issue Date 07/15/2014 / Version: 3.1

DAS Code: GF-1396

Most recent revision(s) are noted by the bold, double bars in left-hand margin throughout this document.

#### Legend

| N/A          | Not available                                                                  |
|--------------|--------------------------------------------------------------------------------|
| W/W          | Weight/Weight                                                                  |
| OEL          | Occupational Exposure Limit                                                    |
| STEL         | Short Term Exposure Limit                                                      |
| TWA          | Time Weighted Average                                                          |
| ACGIH        | American Conference of Governmental Industrial Hygienists, Inc.                |
| DOW IHG      | Dow Industrial Hygiene Guideline                                               |
| WEEL         | Workplace Environmental Exposure Level                                         |
| HAZ_DES      | Hazard Designation                                                             |
| Action Level | A value set by OSHA that is lower than the PEL which will trigger the need for |
|              | activities such as exposure monitoring and medical surveillance if exceeded.   |

Dow AgroSciences LLC 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.