

# **SAFETY DATA SHEET**

## **DOW AGROSCIENCES LLC**

Product name: Radar AM400 Herbicide Issue Date: 05/14/2015
Print Date: 11/03/2015

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. IDENTIFICATION

Product name: Radar AM400 Herbicide

Recommended use of the chemical and restrictions on use

**Identified uses:** End use herbicide product

#### **COMPANY IDENTIFICATION**

DOW AGROSCIENCES LLC 9330 ZIONSVILLE RD INDIANAPOLIS IN 46268-1053 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

#### Hazard classification

This material is hazardous under the criteria of the Federal OSHA Hazard Communication Standard 29CFR 1910.1200.

Serious eye damage - Category 1

# Label elements Hazard pictograms



Signal word: DANGER!

#### **Hazards**

Causes serious eye damage.

#### **Precautionary statements**

#### Prevention

Wear eye protection/ face protection.

#### Response

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.

#### Other hazards

no data available

# 3. COMPOSITION/INFORMATION ON INGREDIENTS

This product is a mixture.

Component	CASRN	Concentration
2,4-D Dimethylamine Salt	2008-39-1	46.3%
Ethylenediamine tetraacetic acid	60-00-4	3.0%
Dimethylamine	124-40-3	1.0%
2,4-Dichlorophenol	120-83-2	0.1%
Balance	Not available	49.6%

## 4. FIRST AID MEASURES

## **Description of first aid measures**

**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. Rinse skin immediately with 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:** Wash immediately and continuously with flowing water for at least 30 minutes. Remove contact lenses after the first 5 minutes and continue washing. Obtain prompt medical consultation, preferably from an ophthalmologist.

**Ingestion:** Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Never give anything by mouth to an unconscious person.

Page 2 of 14

**Most important symptoms and effects, both acute and delayed:** 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.

Indication of any immediate medical attention and special treatment needed

**Notes to physician:** Chemical eye burns may require extended irrigation. Obtain prompt consultation, preferably from an ophthalmologist. If burn is present, treat as any thermal burn, after decontamination. 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. FIREFIGHTING MEASURES

**Suitable extinguishing media:** To extinguish combustible residues of this product use water fog, carbon dioxide, dry chemical or foam.

Unsuitable extinguishing media: no data available

# 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: Nitrogen oxides. Hydrogen chloride. Carbon monoxide. Carbon dioxide. Combustion products may include trace amounts of: Ammonia.

**Unusual Fire and Explosion Hazards:** This material will not burn until the water has evaporated. Residue can burn. If exposed to fire from another source and water is evaporated, exposure to high temperatures may cause toxic fumes. Dense smoke is produced when product burns.

# Advice for firefighters

**Fire Fighting Procedures:** Keep people away. Isolate fire and deny unnecessary entry. Use water spray to cool fire exposed containers and fire affected zone until fire is out and danger of reignition has passed. To extinguish combustible residues of this product use water fog, carbon dioxide, dry chemical or foam. 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:** Evacuate area. Refer to section 7, Handling, for additional precautionary measures. Only trained and properly protected personnel must be involved in clean-up operations. Keep upwind of spill. Ventilate area of leak or

spill. No smoking in area. Use appropriate safety equipment. For additional information, refer to Section 8, Exposure Controls and Personal Protection.

**Environmental precautions:** Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. See Section 12, Ecological Information.

**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.

## 7. HANDLING AND STORAGE

**Precautions for safe handling:** Keep out of reach of children. Do not swallow. Avoid breathing vapor or mist. Use with adequate ventilation. Wash thoroughly after handling. Keep container closed. 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. Keep away from heat, sparks and flame.

**Conditions for safe 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

#### **Control parameters**

Exposure limits are listed below, if they exist.

Component	Regulation	Type of listing	Value/Notation
Dimethylamine	ACGIH	TWA	5 ppm
•	ACGIH	STEL	15 ppm
	OSHA Z-1	TWA	18 mg/m3 10 ppm
	ACGIH	TWA	Skin Sensitizer
	ACGIH	STEL	Skin Sensitizer
2,4-Dichlorophenol	US WEEL	TWA	1 ppm
·	US WEEL	TWA	SKIN*

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., \*Absorbed rapidly through the skin in molten or heated liquid form in amounts that have caused rapid death in humans.

#### **Exposure controls**

**Engineering controls:** 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.

#### Individual protection measures

**Eye/face protection:** Use chemical goggles. Eye wash fountain should be located in immediate work area.

Skin protection

Hand protection: Use gloves chemically resistant to this material. Examples of preferred glove barrier materials include: Butyl rubber. Natural rubber ("latex"). Neoprene. Nitrile/butadiene rubber ("nitrile" or "NBR"). Polyethylene. Ethyl vinyl alcohol laminate ("EVAL"). Polyvinyl chloride ("PVC" or "vinyl"). 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.

**Other protection:** Use protective clothing chemically resistant to this material. Selection of specific items such as face shield, boots, apron, or full body suit will depend on the task. Remove contaminated clothing immediately, wash skin area with soap and water, and launder clothing before reuse or dispose of properly.

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.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Appearance** 

Physical state Liquid.
Color Brown
Odor Musty

Odor Threshold No test data available pH 8.29 1% pH Electrode

Melting point/range Not applicable

Freezing point No test data available
Boiling point (760 mmHg) No test data available

Flash point closed cup > 100 °C ( > 212 °F) Closed Cup

**Evaporation Rate (Butyl Acetate** 

Flammability (solid, gas)

= 1)

Not Applicable

no data available

Lower explosion limit

Upper explosion limit

Vapor Pressure

Relative Vapor Density (air = 1)

Relative Density (water = 1)

Water solubility

No test data available

No test data available

no data available

water based product

Partition coefficient: n-

octanol/water

no data available

Auto-ignition temperatureNo test data availableDecomposition temperatureNo test data available

Product name: Radar AM400 Herbicide

Kinematic ViscosityNo test data availableExplosive propertiesno data availableOxidizing propertiesno data available

**Liquid Density** 1.17 g/cm3 at 20 °C (68 °F)

Molecular weight no data available

NOTE: The physical data presented above are typical values and should not be construed as a specification.

#### 10. STABILITY AND REACTIVITY

Reactivity: no data available

Chemical stability: Thermally stable at typical use temperatures.

Possibility of hazardous reactions: Polymerization will not occur.

**Conditions to avoid:** Active ingredient decomposes at elevated temperatures. Generation of gas during decomposition can cause pressure in closed systems.

Incompatible materials: Avoid contact with: Acids. 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: Carbon monoxide. Carbon dioxide. Hydrogen chloride. Nitrogen oxides. Toxic gases are released during decomposition. Decomposition products can include trace amounts of: Ammonia.

## 11. TOXICOLOGICAL INFORMATION

Toxicological information appears in this section when such data is available.

## **Acute toxicity**

#### Acute oral toxicity

Low toxicity if swallowed. Small amounts swallowed incidentally as a result of normal handling operations are not likely to cause injury; however, swallowing larger amounts may cause injury.

LD50, Rat, female, 3,129 mg/kg

#### Acute dermal toxicity

Prolonged skin contact is unlikely to result in absorption of harmful amounts.

LD50, Rat, male and female, > 5,000 mg/kg

# Acute inhalation toxicity

No adverse effects are anticipated from single exposure to mist.

LC50, Rat, male and female, 4 Hour, Mist, > 5.34 mg/l

#### Skin corrosion/irritation

Prolonged contact may cause slight skin irritation with local redness.

Repeated contact may cause skin burns. Symptoms may include pain, severe local redness, swelling, and tissue damage.

May cause more severe response on covered skin (under clothing, gloves).

# Serious eye damage/eye irritation

May cause severe irritation with corneal injury which may result in permanent impairment of vision, even blindness. Chemical burns may occur.

#### Sensitization

Did not demonstrate the potential for contact allergy in mice.

For respiratory sensitization:

No relevant data found.

# **Specific Target Organ Systemic Toxicity (Single Exposure)**

Evaluation of available data suggests that this material is not an STOT-SE toxicant.

## **Specific Target Organ Systemic Toxicity (Repeated Exposure)**

For the active ingredient(s):

In animals, effects have been reported on the following organs:

Bone marrow.

Adrenal gland.

Eye.

Kidney.

Liver.

Spleen.

Testes.

Thyroid.

#### Carcinogenicity

Available data are inadequate to evaluate carcinogenicity. For similar active ingredient(s). Various animal cancer tests have shown no reliably positive association between 2,4-D exposure and cancer. Epidemiology studies on herbicide use have been both positive and negative with the majority being negative.

#### **Teratogenicity**

For similar active ingredient(s). 2,4-Dichlorophenoxyacetic acid. Has been toxic to the fetus in laboratory animals at doses toxic to the mother. Did not cause birth defects in laboratory animals.

# Reproductive toxicity

For similar active ingredient(s). 2,4-Dichlorophenoxyacetic acid. In laboratory animals, excessive doses toxic to the parent animals caused decreased weight and survival of offspring.

#### Mutagenicity

For the active ingredient(s): In vitro genetic toxicity studies were predominantly negative. Animal genetic toxicity studies were inconclusive

# **Aspiration Hazard**

Based on physical properties, not likely to be an aspiration hazard.

Carcinogenicity

Component List Classification

**2,4-Dichlorophenol** IARC Group 2B: Possibly carcinogenic to

humans

#### 12. ECOLOGICAL INFORMATION

Ecotoxicological information appears in this section when such data is available.

## **Toxicity**

#### 2,4-D Dimethylamine Salt

## Acute toxicity to fish

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).

LC50, Oncorhynchus mykiss (rainbow trout), static test, 96 Hour, 250 mg/l, OECD Test Guideline 203 or Equivalent

#### Acute toxicity to aquatic invertebrates

EC50, Daphnia magna (Water flea), 48 Hour, 184 mg/l

# Acute toxicity to algae/aquatic plants

ErC50, Pseudokirchneriella subcapitata (green algae), 5 d, Growth rate inhibition, 66.5 mg/l EbC50, diatom Navicula sp., 5 d, Biomass, 5.28 mg/l EbC50, Lemna minor (duckweed), 14 d, Biomass, 0.58 mg/l

#### Chronic toxicity to aquatic invertebrates

NOEC, Daphnia magna (Water flea), flow-through test, 21 d, 27.5 mg/l

#### **Toxicity to Above Ground Organisms**

Material is moderately toxic to birds on an acute basis (LD50 between 51 and 500 mg/kg). Material is practically non-toxic to birds on a dietary basis (LC50 > 5000 ppm). oral LD50, Colinus virginianus (Bobwhite quail), 14 d, 500mg/kg bodyweight. dietary LC50, Colinus virginianus (Bobwhite quail), 8 d, 5620mg/kg diet. contact LD50, Apis mellifera (bees), 48 Hour, mortality, > 100micrograms/bee oral LD50, Apis mellifera (bees), 48 Hour, mortality, > 100micrograms/bee

#### Ethylenediamine tetraacetic acid

# Acute toxicity to fish

Material is practically non-toxic to aquatic organisms on an acute basis (LC50/EC50/EL50/LL50 >100 mg/L in the most sensitive species tested). LC50, Fish., 96 Hour, 1,000 mg/l, OECD Test Guideline 203 or Equivalent

#### Acute toxicity to aquatic invertebrates

EC50, Daphnia magna (Water flea), static test, 48 Hour, 113 mg/l, OECD Test Guideline 202 or Equivalent

#### Dimethylamine

#### Acute toxicity to fish

No relevant data found.

#### 2,4-Dichlorophenol

#### Acute toxicity to fish

Material is moderately toxic to aquatic organisms on an acute basis (LC50/EC50 between 1 and 10 mg/L in the most sensitive species tested).

LC50, Pimephales promelas (fathead minnow), flow-through test, 96 Hour, 6.7 - 11.6 mg/l

#### Acute toxicity to aquatic invertebrates

EC50, Daphnia magna (Water flea), 24 Hour, 2.50 - 6.0 mg/l

#### Acute toxicity to algae/aquatic plants

LC50, alga Scenedesmus sp., 48 Hour, Biomass, 11.5 mg/l, OECD Test Guideline 201 or Equivalent

#### Toxicity to bacteria

EC50, activated sludge, 52.5 mg/l EC50, Bacteria, 55 - 75 mg/l

#### Toxicity to soil-dwelling organisms

LC50, Eisenia fetida (earthworms), 2 d, survival, 0.0025 mg/cm2

## **Balance**

#### Acute toxicity to fish

No relevant data found.

## Persistence and degradability

#### 2,4-D Dimethylamine Salt

**Biodegradability:** For similar active ingredient(s). 2,4-Dichlorophenoxyacetic acid. Material is readily biodegradable. Passes OECD test(s) for ready biodegradability.

# Ethylenediamine tetraacetic acid

Biodegradability: Material is inherently biodegradable (reaches > 20% biodegradation in

OECD test(s) for inherent biodegradability).

10-day Window: Not applicable **Biodegradation:** 37 % **Exposure time:** 14 d

Method: OECD Test Guideline 302B or Equivalent

10-day Window: Fail **Biodegradation:** 0 % **Exposure time:** 30 d

Method: OECD Test Guideline 301D or Equivalent

Theoretical Oxygen Demand: 1.37 mg/mg

# **Photodegradation**

Test Type: Half-life (indirect photolysis)

Sensitizer: OH radicals

Atmospheric half-life: 2.12 Hour

Method: Estimated.

#### **Dimethylamine**

Biodegradability: No relevant data found.

## 2,4-Dichlorophenol

Product name: Radar AM400 Herbicide

Biodegradability: Material is expected to biodegrade very slowly (in the environment). Fails

Issue Date: 05/14/2015

to pass OECD/EEC tests for ready biodegradability. 10-day Window: Not applicable

Biodegradation: 4 % Exposure time: 28 d

Method: OECD Test Guideline 301B

Theoretical Oxygen Demand: 1.18 mg/mg

#### Biological oxygen demand (BOD)

Incubation	BOD	
Time		
5 d	76.000 %	
10 d	77.000 %	
20 d	77.000 %	

# **Photodegradation**

Test Type: Half-life (indirect photolysis)

**Sensitizer:** OH radicals **Atmospheric half-life:** 3.59 d

Method: Estimated.

#### **Balance**

Biodegradability: No relevant data found.

#### Bioaccumulative potential

#### 2,4-D Dimethylamine Salt

**Bioaccumulation:** For similar active ingredient(s). 2,4-Dichlorophenoxyacetic acid. Bioconcentration potential is low (BCF < 100 or Log Pow < 3).

#### Ethylenediamine tetraacetic acid

**Bioaccumulation:** Bioconcentration potential is low (BCF < 100 or Log Pow < 3). **Partition coefficient:** n-octanol/water(log Pow): -3.86 at 25 °C Estimated.

Bioconcentration factor (BCF): 1.1 Fish. 28 d Measured

# **Dimethylamine**

**Bioaccumulation:** No relevant data found.

Partition coefficient: n-octanol/water(log Pow): -0.38 Measured

#### 2,4-Dichlorophenol

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

Log Pow between 3 and 5).

Partition coefficient: n-octanol/water(log Pow): 3.06 Measured

Bioconcentration factor (BCF): 34 Fish. Measured

#### **Balance**

Bioaccumulation: No relevant data found.

## Mobility in soil

#### 2,4-D Dimethylamine Salt

For similar active ingredient(s).

Page 10 of 14

2,4-Dichlorophenoxyacetic acid.

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

#### Ethylenediamine tetraacetic acid

Potential for mobility in soil is high (Koc between 50 and 150).

Partition coefficient(Koc): 98

#### Dimethylamine

No relevant data found.

#### 2,4-Dichlorophenol

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

Partition coefficient(Koc): 550 Measured

#### **Balance**

No relevant data found.

#### 13. DISPOSAL CONSIDERATIONS

**Disposal methods:** 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

Proper shipping name Environmentally hazardous substance, liquid, n.o.s.(2,4-D

Salt)

UN number UN 3082 Class 9

Class 9
Packing group III

**Reportable Quantity** 2,4-D Salt

## Classification for SEA transport (IMO-IMDG):

Proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,

N.O.S.(2,4-D Salt)

UN number UN 3082

Class 9 Packing group III

Marine pollutant 2,4-D Salt

Transport in bulk Consult IMO regulations before transporting ocean bulk

according to Annex I or II of MARPOL 73/78 and the

**IBC or IGC Code** 

#### Classification for AIR transport (IATA/ICAO):

Proper shipping name Environmentally hazardous substance, liquid, n.o.s.(2,4-D

Salt)

UN number UN 3082

Class 9
Packing group III

This information is not intended to convey all specific regulatory or operational requirements/information relating to this product. Transportation classifications may vary by container volume and may be influenced by regional or country variations in regulations. 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

Fire Hazard

Acute Health Hazard Chronic Health Hazard

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

ComponentsCASRNDimethylamine124-40-3

# 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.

CASRN	RQ
60-00-4	5000 lbs RQ
124-40-3	1000 lbs RQ
120-83-2	100 lbs RQ
	60-00-4 124-40-3

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

This product contains no listed substances known to the State of California to cause cancer, birth defects or other reproductive harm, at levels which would require a warning under the statute.

# Pennsylvania (Worker and Community Right-To-KnowAct): 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.

Components CASRN

Ethylenediamine tetraacetic acid 60-00-4 Dimethylamine 124-40-3

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

The following product components are cited in the Pennsylvania Special Hazardous Substance List, and are present at levels which require reporting.

Components CASRN

Chlorophenols

# **United States TSCA Inventory (TSCA)**

This product contains chemical substance(s) exempt from U.S. EPA TSCA Inventory requirements. It is regulated as a pesticide subject to Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) requirements.

## 16. OTHER INFORMATION

#### **Hazard Rating System**

#### **NFPA**

Health	Fire	Reactivity
3	2	1

#### Revision

Identification Number: 101199962 / A211 / Issue Date: 05/14/2015 / Version: 2.0

DAS Code: XRM-4436

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

Legend

ACGIH	USA. ACGIH Threshold Limit Values (TLV)
OSHA Z-1	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air
	Contaminants
SKIN*	Absorbed via Skin* Absorbed rapidly through the skin in molten or heated liquid
	form in amounts that have caused rapid death in humans.
STEL	Short-term exposure limit
TWA	8-hour, time-weighted average
US WEEL	USA. Workplace Environmental Exposure Levels (WEEL)

#### **Information Source and References**

This SDS is prepared by Product Regulatory Services and Hazard Communications Groups from information supplied by internal references within our company.

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

Page 13 of 14

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.