

MATERIAL SAFETY DATA SHEET

Version: 1.1
Date of Issue: 12/25/2012
Date printed: 06/24/2014

1. PRODUCT AND COMPANY IDENTIFICATION

Product name : N-DIMETHYLAMINO SUCCINAMIC ACID CRYDAM 85 S.P.

Chemical name: N-DIMETHYLAMINO SUCCINAMIC ACID

Use of substance/preparation: Plant Growth Regulator

Supplier: XIAN YUANFAR INTERNATIONAL TRADE COMPANY
No. 36, Fenghui Road
Xian 710065, China

Emergency telephone number: 86-29-8874 5613

Environmental, Health and Safety Department: 86-29-8874 5617
Prepared by

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

CAUTION!

MAY CAUSE MILD IRRITATION OF THE EYES.

NORMAL PRECAUTIONS COMMON TO SAFE MANUFACTURING PRACTICE SHOULD BE FOLLOWED IN HANDLING AND STORAGE.

3. COMPOSITION / INFORMATION ON INGREDIENTS

INGREDIENT	% BY WEIGHT
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Daminozide CAS# 1596-84-5	> 99
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Ingredients not precisely identified are non-hazardous and/or proprietary.

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4. FIRST AID MEASURES

Swallowing

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. Do not give anything by mouth to an unconscious person.

Inhalation

Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice.

Skin contact

Take off contaminated clothing. Rinse skin immediately with plenty of water for 15 to 20 minutes. Call a poison control center or doctor for treatment advice.

Eye contact

Hold eye open and rinse slowly and gently with water for 15 to 20 minutes. Remove contact lens, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for further treatment advice.

5. FIRE-FIGHTING MEASURES

Flash point: 320 °F 160 °C
Autoignition temperature: 263 °C

Hazardous combustion products

Burning can produce the following combustion products:

Oxides of nitrogen.
Dimethylhydrazine

Special fire fighting procedures

Do not discharge extinguishing waters into streams, rivers and lakes.

Special protective equipment for firefighters

Body covering protective clothing, full "turn-out" gear.
Self-contained breathing apparatus.

Extinguishing media

Suitable: **Large fires:**
 - alcohol-type foam or universal-type foams
 Small fires:
 - CO2
 - dry chemical
 - water spray

Unsuitable: - water jets

6. ACCIDENTAL RELEASE MEASURES

Personal precautions

Wear suitable protective equipment., Avoid contact with eyes and skin.

Environmental precautions

Prevent from entering sewer system, surface water or soil.

Methods for cleaning up

Sweep up and collect in a suitable container for disposal.
Avoid dust formation.
Observe government regulations.

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7. HANDLING AND STORAGE

HANDLING

Handling precautions

Do not get in eyes, on skin, on clothing., Do not swallow., Avoid dispersion of dust to reduce fire and explosion potential., Do not eat, drink or smoke when handling.

Other precautions

NOTE TO END-USERS: The employee protection recommendations on this MSDS may differ from those on the product label. For normal use of this product, always refer to the personal protective equipment requirements on the product label.

STORAGE

Storage requirements

Store in a cool, dry place., Store in closed original drums.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE LIMIT VALUES

PERSONAL PROTECTION

Respiratory protection

In the absence of engineering controls sufficient to maintain airborne concentrations below recommended occupational exposure limit values, appropriate respiratory protection should be utilized., The determination of appropriate respiratory protection is best performed, on a case by case basis, taking into consideration the exposure conditions of the particular operation., Use an approved full-face air-purifying respirator. For emergency and other conditions where the exposure limit may be greatly exceeded, use an approved positive-pressure self-contained breathing apparatus., The respirator manufacturer should be consulted to ensure that the air-purifying cartridges utilized will provide adequate protection for the exposure conditions and period of wear concerned.

Hand protection / protective gloves

Chemical resistant protective gloves

Eye protection

Safety glasses with side shields.

Skin protection

Wear protective clothing, such as long sleeves to minimize skin contact.

ENGINEERING CONTROLS

Ventilation

Apply local exhaust ventilation at points of dust generation.

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE

Physical state	Powder
Color	White
Odor	Faint Amine

OTHER PROPERTIES

Boiling point	Not available
Melting point	Melting point 156 - 158 °C
Density	Not available
Vapor pressure	

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Solubility in water	180 g/l
Solubility in organic solvents	Slightly soluble
Partitioning coefficient	log POW: -1.5
Flash point	320 °F 160 °C
Thermal decomposition	244 °C 471 °F
Autoignition temperature	263 °C
Molecular weight	160.2
Oxidizing properties	Not applicable
Explosive properties	Not applicable

10. STABILITY AND REACTIVITY

Stability: This product is stable under normal storage and handling conditions.

Stability - Conditions to avoid:
Exposure to heat.

Incompatible materials:
Strong acids.
Strong bases.

Hazardous combustion products:
Burning can produce the following combustion products:
Oxides of nitrogen.
Dimethylhydrazine

11. TOXICOLOGICAL INFORMATION

SWALLOWING

Test results

Acute toxicity: LD50 Rat
Result: > 5,000 mg/kg

SKIN ABSORPTION

Test results

Acute toxicity: LD50 - Rabbit
Result: > 5,000 mg/kg

INHALATION

Test results

Acute toxicity: LC50 - Rat
Result: 2.1 mg/l
Exposure time: 4 h

SKIN CONTACT

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Test results
Skin irritation: Species: Rabbit
Classification: Not irritant

EYE CONTACT
Test results
Eye irritation: Species: Rabbit
Result: Moderate

SENSITIZATION
Test results: Species: Skin - Guinea pigs
Result: Negative

MUTAGENICITY
Assessment: Negative

CARCINOGENICITY
Assessment: Negative

TOXICITY TO REPRODUCTION/FERTILITY
AssessmentNegative

12. ECOLOGICAL INFORMATION

Biodegradation: Remark: Readily biodegradable.

AQUATIC TOXICITY

Acute toxicity fish: Acute toxicity fish - LC50 - Rainbow trout (Oncorhynchus mykiss)
Result: > 149 mg/l
Exposure time: 96 h

Acute toxicity fish: - LC50 - Bluegill (Lepomis macrochirus)
Result: 423 mg/l
Exposure time: 96 h

Aquatic toxicity to plants: - IC50 - Algae
Result: 160 mg/l
Exposure time: 72 h

Acute toxicity to aquatic invertebrates: Acute daphnia toxicity - LC50 - Water flea (Daphnia magna)
Result: > 99 mg/l
Exposure time: 48 h

13. DISPOSAL CONSIDERATIONS

General: Avoid discharge to sewers and natural waters., Incinerate in a furnace where permitted under appropriate Federal, State, and local regulations.

14. TRANSPORT INFORMATION

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DOT Classification

This product is not regulated by DOT.

IMDG Classification

This product is not regulated by IMDG.

ICAO Classification

This product is not regulated by ICAO.

15. REGULATORY INFORMATION

Comprehensive Environmental Response Compensation and Liability Act of 1980 (CERCLA) requires notification of the National Response Center of release of quantities of hazardous substances equal to or greater than the reportable quantities (RO's) in 40CFR302.4.

Components present in this product at a level which could require reporting under the statute are:

**** NONE ****

Superfund Amendments and Reauthorization Act of 1986 (SARA) Title III requires submission of annual reports of release of toxic chemicals that appear in 40CFR372 (for SARA 313). This information must be included in MSDS's that are copied and distributed for this material.

Components present in this product at a level which could require reporting under the statute are:

**** NONE ****

New Jersey Worker and Community Right-To-Know Act (Labeling Requirements)

Chemical name	CAS#	New Jersey TS Number
Daminozide	1596-84-5	

Inerts

-

California Proposition 65

This product contains daminozide.

CHEMICAL INVENTORY

Europe:

The ingredients of this product are on the EINECS inventory.

United States:

This product is subject to regulation under the US Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) and is therefore exempt from TSCA Inventory listing requirements.

Australia:

The ingredients of this product are on the AICS inventory.

China:

This product is listed with the State Environmental Protection Administration (SEPA).

Japan:

The ingredients of this product are on the ENCS inventory.

Korea:

The ingredients of this product are on the ECL.

16. OTHER INFORMATION

RECOMMENDED USES AND RESTRICTIONS: NOTE TO END-USERS: This MSDS is being provided to all interested persons in accordance with federal and state right-to-know laws. Precautionary Statements, First Aid Statements and Directions for Use of this product by end-users are contained on the product label and must be followed at all times.

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STP	Standard temperature and pressure
W/W	Weight/Weight
0 (HMIS)	0 (HMIS)
1 (HMIS)	Slight hazard
2 (HMIS)	Moderate hazard
3 (HMIS)	Serious hazard
4 (HMIS)	Severe hazard
X (HMIS)	Personal protection rating to be supplied by user depending on use conditions

THE OPINIONS EXPRESSED HEREIN ARE THOSE OF QUALIFIED EXPERTS WITHIN CHEMTURA CORPORATION. WE BELIEVE THAT THE INFORMATION CONTAINED HEREIN IS CURRENT AS OF THE DATE OF THIS SAFETY DATA SHEET. SINCE THE USE OF THIS INFORMATION AND OF THESE OPINIONS AND THE CONDITIONS OF USE OF THIS PRODUCT ARE NOT WITHIN THE CONTROL OF CHEMTURA CORPORATION, IT IS THE USER'S OBLIGATION TO DETERMINE THE CONDITIONS OF SAFE USE OF THE PRODUCTS.