

SAFETY DATA SHEET

According to OSHA Hazard Communication Standard

SDS Number: 5242-15



SECTION I IDENTIFICATION

Product Identifier

Product Name	HEAVY DUTY D-SCALE
Product Code	5242/5244
Recommended Use	Evaporative Cooler Descalant
Distributor Name	Dial Manufacturing Inc.
Distributor Address	25 South 51 st Avenue, Phoenix, AZ 85403
Distributor Phone Number	(602) 278-1100

SECTION II HAZARD IDENTIFICATION

Classification of Substance or Mixture

Classification according to Regulation (EC) No 1272/2008



**GHS05
CORROSIVE**

H290 - May be corrosive to metals
H314 - Causes severe skin burns and eye damage
H302 - Harmful if swallowed



**GHS07
TOXIC**

Classification according to Directive 67/548/EEC or Directive 1999/45/EC

Not Applicable

Information concerning particular hazards for human and environment

The product has to be labeled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

Classification system

The classification is in accordance with the latest editions of international substances lists, and is supplemented by information from technical literature and by information provided by the company.

Label elements - Labeling according to Regulation (EC) No 1272/2008

Hazard Pictogram		
	GHS05 CORROSIVE	GHS07 TOXIC
Single Word	DANGER	
Hazard-determining components of labeling	Urea Hydrochloride	
Hazard statements	H302 Harmful if swallowed. H314 Causes severe skin burns and eye damage.	
Precautionary statements		
P101	If medical advice is needed, have product container or label at hand.	
P102	Keep out of reach of children.	
P103	Read label before use.	
P280	Wear protective gloves/protective clothing/eye protection/face protection.	
P264	Wash thoroughly after handling.	
P260	Do not breathe mist/vapors/spray.	
P303+P361+P353	IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.	
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do continue rinsing.	
P310	Immediately call a POISON CENTER or doctor/physician.	
P304+P340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.	
P301+P330+P331	IF SWALLOWED: rinse mouth. Do NOT induce vomiting.	
WHMIS-symbols	D1B - Toxic material causing immediate and serious toxic effects D2B - Toxic material causing other toxic effects E - Corrosive material	

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NFPA Rating
(Scale 0 - 4)



HMIS Rating
(Scale 0 - 4)

HEALTH	2
FLAMABILITY	0
REACTIVITY	0

Other Hazards

Results of PBT and vPvB
assessment

PBT: Not applicable
vPvB: Not applicable

SECTION III COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Characterization: Mixture

Description: Mixture of substances listed below with nonhazardous additions.

CAS Number	Dangerous Components	%
506-89-8	Urea Monohydrochloride	0 - 20%

SECTION IV FIRST-AID MEASURES

Description of First Aid Measure

General information	<ul style="list-style-type: none"> a) Immediately remove any clothing soiled by the product. b) Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
After inhalation	<ul style="list-style-type: none"> a) Supply fresh air; consult doctor in case of complaints. b) In case of irregular breathing or respiratory arrest provide artificial respiration
After skin contact	<ul style="list-style-type: none"> a) Immediately rinse with water. b) If skin irritation continues, consult a doctor.
After eye contact	<ul style="list-style-type: none"> a) Remove contact lenses if worn, if possible. b) Rinse opened eye for several minutes under running water. Then consult a doctor.
After swallowing	<ul style="list-style-type: none"> a) Rinse out mouth and then drink plenty of water. b) Do not induce vomiting; call for medical help immediately.

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Most important symptoms and effects, both acute and delayed

Symptoms	Coughing Breathing difficulty Dizziness Gastric or intestinal disorders
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Hazards	Danger of gastric perforation. Danger of pulmonary oedema. Danger of impaired breathing.
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Indication of any immediate medical attention and special treatment needed

If necessary oxygen respiration treatment.
Medical supervision for at least 48 hours.

SECTION V FIRE-FIGHTING MEASURES

Extinguishing media

Suitable extinguishing agents	CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
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Unsuitable extinguishing agents	None
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Special hazards arising from the substance or mixture

Formation of toxic gases is possible during heating or in case of fire.

Advice for firefighters

Protective equipment	Wear self-contained respiratory protective device. Wear fully protective suit.
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Additional information	Cool endangered receptacles with water spray
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SECTION VI ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Wear protective equipment.
Keep unprotected persons away.

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Ensure adequate ventilation.

Environmental precautions

Inform respective authorities in case of seepage into water course or sewage system.
Do not allow to enter sewers/ surface or ground water

Methods and material for containment and cleaning up

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Dispose contaminated material as waste according to item 13.
Clean the affected area carefully; suitable cleaners are:
Warm water

Reference to other sections

See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

SECTION VII HANDLING AND STORAGE

Precautions for safe handling

- a) Ensure good ventilation/exhaustion at the workplace.
- b) Prevent formation of aerosols.
- c) Do not ingest.
- d) Avoid contact with eyes, skin and clothing.
- e) Avoid breathing vapor or mist.

Conditions for safe storage, including any incompatibilities

Requirements to be met by storerooms and receptacles:

- a) Store in a cool location
 - b) Avoid storage near extreme heat, ignition sources or open flame.
 - c) Don't reuse empty container.
 - d) Unsuitable material for receptacle: aluminum.
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Information about storage in one common storage facility:

- a) Store away from food.
 - b) Store away from oxidizing agents.
 - c) Do not store together with alkalis (caustic solutions).
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Further information about storage conditions:

- a) Store in cool, dry conditions in well sealed receptacles.
 - b) Store receptacle in a well ventilated area.
 - c) Keep container tightly sealed.
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Specific end use(s)

None

SECTION VIII**EXPOSURE CONTROLS/PERSONAL PROTECTION**

Additional information about design of technical facilities: No further data; see item 7.

Occupational Exposure Limits

OSHA (PEL): Not Established

AGCIH (TWA): Not established

Control Parameters

Good general ventilation should be sufficient to control worker exposure to airborne contaminants & fumes.

Ingredients with limit values that require monitoring at the workplace

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

Exposure Control**General protective and hygienic measures**

- Keep away from food, beverages and feed.
- Immediately remove all soiled and contaminated clothing.
- Wash hands before breaks and at the end of work.
- Avoid contact with the eyes and skin.

Respiratory protection

- Suitable respiratory protective device recommended.
- For spills, respiratory protection may be advisable

Hand Protection

- Neoprene, butyl or nitrile rubber glove with cuffs

Eye Protection

- Chemical splash goggles

Body Protection

- Coverall and apron

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SECTION IX PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

General Information

Appearance	
Form	Fluid
Color	Blue
Odor	Acidic
Odor Threshold	Not Determined
Change in condition	
Melting point/Melting range	Undetermined
Boiling point/Boiling range	100 °C (212 °F)
Flash point	Not applicable
Flammability (solid, gaseous)	Non-Flammable
Ignition temperature	Not determined
Decomposition temperature	Not determined
Auto igniting	Product is not self-lighting
Danger of explosion	Product does not present an explosion hazard
Explosion limits	
Lower	Not determined
Upper	Not determined
Vapor pressure	Not determined
Density	Not determined
Relative density	8.59 lbs/gal
Vapor density	Not determined
Evaporation rate	(BuAc=1) <.01
Solubility in/Miscibility with	
Water	Fully miscible
Partition coefficient (n-octanol/water)	Not determined
Viscosity	
Dynamic	Not determined
Kinematic	Not determined

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Other information

No further relevant information

SECTION X STABILITY AND REACTIVITY

Reactivity No specific test data related to reactivity available for this product or its ingredients

Chemical stability Stable

Conditions to avoid No specific data

Possibility of hazardous reaction No dangerous reactions known

Incompatible materials Reactive or incompatible with the following materials: oxidizing materials. This material may be extremely hazardous in contact with chlorates and nitrates. Contact with hypochlorites (e.g. Chlorine bleach, sulfides or cyanides) will liberate toxic gases. Contact with alkaline materials (e.g. Aqua ammonia) will generate heat.

SECTION XI TOXICOLOGICAL INFORMATION**Acute Toxicity**

Hazardous Ingredient	CAS #	LD 50 of Ingredient
Urea Monohydrochloride	506-89-8	1121 mg/kg - Oral rat

Primary irritant effects

Skin	Mild Skin irritant
Eye	Corrosive

Carcinogenic categories

IARC (International Agency for Research on Cancer)	None listed
NTP (National Toxicology Program)	None listed
OSHA(Occupational Safety & Health Administration)	None listed

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SECTION XII**ECOLOGICAL INFORMATION****Toxicity**

Ingredient Name	Result	Species	Exposure
Organic acid salt	Acute LC50 71 mg/l	Ceriodaphnia dubia	48 hours
Organic acid salt	Acute LC0 > 142 mg/l	Rainbow Trout	96 hours
Aquatic toxicity	No further relevant information available		
Persistence and degradability	No further relevant information available		

Behavior on the environmental system

Bioaccumulative potential	No further relevant information available
Mobility in soil	No further relevant information available

Additional Ecological information

General Notes	Biodegradable
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Results of PBT and vPvB assessment

PBT	Not applicable
vPvB	Not applicable

SECTION XIII**DISPOSAL CONSIDERATIONS****Waste treatment methods (Recommendation)**

Biodegradable. This product has been evaluated for RCRA characteristics and does not meet the criteria for a hazardous waste, if discarded in its purchased form.

Hazardous Waste Code D002=Aqueous solution (min. 20% water) with pH ≤ 2 and ≥ 12.5

Uncleaned packaging (Recommendations)

Neutralize waste fluids with soda ash.

The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling empty containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains, and sewers

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SECTION XIV TRANSPORT INFORMATION

UN-Number

DOT, ADR, IMDG, IATA UN2922

UN proper shipping name

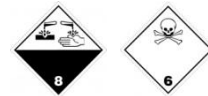
DOT, IMDG, IATA CORROSIVE LIQUID, TOXIC, N.O.S. (Urea Hydrochloride)

ADR 2922 CORROSIVE LIQUID, TOXIC, N.O.S. (Urea Hydrochloride)

Transport hazard class(es)

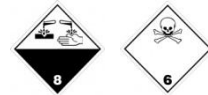
DOT

Class 8 corrosive substances
Label 8+6.1



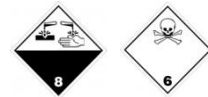
ADR

Class 8 (CT1) Corrosive substances
Label 8+6.1



IMDG, IATA

Class 8 corrosive substances
Label 8+6.1



Packing group

DOT, ADR, MGD, IATA II

Environmental hazards

Marine pollutant No

Special precautions for user

Warning: Corrosive substances
Danger code (Kemler) 86
EMS Number F-A,S-B

Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Not applicable

Transport/Additional information

ADR 1L

Limited quantities (LQ) 2

Transport category E

Tunnel restriction code UN "Model Regulation" UN2922, CORROSIVE LIQUID, TOXIC, N.O.S. (Urea Hydrochloride), 8 (6.1), II

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SECTION XV REGULATORY INFORMATION

Safety, health and environmental regulations/legislation specific for the substance or mixture
United States (USA)

SARA

Section 355 (extremely hazardous substances)	None of the ingredients is listed.
Section 313 (Specific toxic chemical listings)	None of the ingredients is listed.
TSCA (Toxic Substances Control Act)	506-89-8 Urea Hydrochloride

Proposition 65 (California)

Chemicals known to cause cancer	None of the ingredients is listed.
Chemicals known to cause reproductive toxicity for females:	None of the ingredients is listed.
Chemicals known to cause reproductive toxicity for males	None of the ingredients is listed.
Chemicals known to cause developmental toxicity	None of the ingredients is listed.

Carcinogenic Categories

EPA (Environmental Protection Agency)	None of the ingredients is listed.
IARC (International Agency for Research on Cancer)	None of the ingredients is listed.
TLV (Threshold Limit Value established by ACGIH)	None of the ingredients is listed.
NIOSH (National Institute for Occupational Safety and Health)	None of the ingredients is listed.
OSHA (Occupational Safety & Health Administration)	None of the ingredients is listed.

Canada

Canadian Domestic Substances List (DSL)	506-89-8 Urea Hydrochloride
Canadian Ingredient Disclosure list (limit 0.1%)	None of the ingredients is listed.
Canadian Ingredient Disclosure list (limit 1%)	None of the ingredients is listed.

SECTION XVI OTHER INFORMATION

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Relevant phrases

H302 Harmful if swallowed.
H314 Causes severe skin burns and eye damage.
R22 Harmful if swallowed.
R34 Causes burns.
R41 Risk of serious damage to eyes.
R52 Harmful to aquatic organisms