1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Material Identity
Product Name: ADVANTAGE PLUS 1400

Company                              Emergency Telephone Number:
Ashland   1-800-ASHLAND (1-800-274-5263)
Ashland Distribution Co. &          24 hours everyday
Ashland Specialty Chemical Co.
P. O. Box 2219
Columbus, OH 43216
614-790-3333

2. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient(s)                                CAS Number    % (by weight)
-------------------------------------------- ------------- -------------
ETHYLENEDIAMINE TETRAACETIC ACID NA SALT    64-02-8    1.0- 10.0
ACRYLIC POLYMER                                               1.0- 10.0
SODIUM LIGNOSULFONATE                            8061-51-6    1.0- 10.0
ORGANIC SALT                                                  1.0- 10.0

3. HAZARDS IDENTIFICATION

Potential Health Effects

Eye
Can cause permanent eye injury. Symptoms include stinging, tearing, redness, and swelling of eyes. Can injure the cornea and cause blindness.

Skin
Can cause permanent skin damage. Symptoms may include redness, burning, and swelling of skin, burns, and other skin damage. Additional symptoms of skin contact may include: allergic skin reaction (delayed skin rash which may be followed by blistering, scaling and other skin effects). Passage of this material into the body through the skin is possible, but it is unlikely that this would result in harmful effects during safe handling and use.

Swallowing
Swallowing this material may be harmful or fatal. Symptoms may include severe stomach and intestinal irritation (nausea,
vomiting, diarrhea), abdominal pain, and vomiting of blood. Swallowing this material may cause burns and destroy tissue in the mouth, throat, and digestive tract. Low blood pressure and shock may occur as a result of severe tissue injury.

Inhalation
It is possible to breathe this material under certain conditions of handling and use (for example, during heating, spraying, or stirring). Breathing this material may be harmful or fatal.

Symptoms of Exposure
Signs and symptoms of exposure to this material through breathing, swallowing, and/or passage of the material through the skin may include: stomach or intestinal upset (nausea, vomiting, diarrhea) irritation (nose, throat, airways).

Target Organ Effects
No data

Developmental Information
This material (or a component) has been shown to cause birth defects in laboratory animal studies. Harm to the fetus occurs only at exposure levels that harm the pregnant animal. The relevance of these findings to humans is uncertain.

Cancer Information
There is no information available. The chance of this material causing cancer is unknown. This material is not listed as a carcinogen by the International Agency for Research on Cancer, the National Toxicology Program, or the Occupational Safety and Health Administration.

Other Health Effects
No data

Primary Route(s) of Entry
Inhalation, Skin absorption, Skin contact, Eye contact, Ingestion.

4. FIRST AID MEASURES

Eyes
If material gets into the eyes, immediately flush eyes gently with water for at least 15 minutes while holding eyelids apart. If symptoms develop as a result of vapor exposure, immediately move individual away from exposure and into fresh air before flushing as recommended above. Seek immediate medical attention.

Skin
Immediately flush skin with water for at least 15 minutes while removing contaminated clothing and shoes. Seek immediate medical attention. Wash clothing before reuse and discard contaminated shoes.

Swallowing
Seek immediate medical attention. Do not induce vomiting.
Vomiting will cause further damage to the mouth and throat. If individual is conscious and alert, immediately rinse mouth with water and give milk or water to drink. If possible, do not leave individual unattended.

Inhalation
If symptoms develop, immediately move individual away from exposure and into fresh air. Seek immediate medical attention; keep person warm and quiet. If person is not breathing, begin artificial respiration. If breathing is difficult, administer oxygen.

Note to Physicians
Preexisting disorders of the following organs (or organ systems) may be aggravated by exposure to this material: skin, lung (for example, asthma-like conditions), eye.

5. FIRE FIGHTING MEASURES

Flash Point
Not applicable

Explosive Limit
Not applicable

Autoignition Temperature
No data

Hazardous Products of Combustion
May form: carbon dioxide and carbon monoxide, sodium oxide.

Fire and Explosion Hazards
No special fire hazards are known to be associated with this product.

Extinguishing Media
regular foam, water fog, carbon dioxide, dry chemical.

Fire Fighting Instructions
Wear a self-contained breathing apparatus with a full facepiece operated in the positive pressure demand mode with appropriate turn-out gear and chemical resistant personal protective equipment. Refer to the personal protective equipment section of this MSDS.

NFPA Rating
Health - 3, Flammability - 0, Reactivity - 1

6. ACCIDENTAL RELEASE MEASURES

Small Spill
Absorb liquid on vermiculite, floor absorbent or other absorbent material. Scoop or scrape up. Put in container for recovery or
disposal.

Large Spill
Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed. Stop spill at source, dike area of spill to prevent spreading, pump liquid to salvage tank. Remaining liquid may be taken up on sand, clay, earth, floor absorbent, or other absorbent material and shoveled into containers.

7. HANDLING AND STORAGE

Handling
Containers of this material may be hazardous when emptied. Since emptied containers retain product residues (vapor, liquid, and/or solid), all hazard precautions given in the data sheet must be observed.

Storage
Store in closed containers in a dry, well-ventilated area. Keep from freezing.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Eye Protection
Chemical splash goggles and face shield (8" min.) in compliance with OSHA regulations are advised; however, OSHA regulations also permit other type safety glasses. (Consult your industrial hygienist.)

Skin Protection
Wear resistant gloves such as: neoprene, To prevent repeated or prolonged skin contact, wear impervious clothing and boots.

Respiratory Protections
Exposures in the workplace should be monitored to determine if worker exposure to vapor or mist air concentrations exceeds the facility specified exposure "action level" or the use of the product produces adverse health effects or symptoms of exposure. Only a NIOSH/MSHA approved respirator and cartridge (TC-23C) is to be used. Monitoring results must be used to assess the proper level of respiratory protection necessary (such as: full face piece respirator with chemical cartridges or self-contained breathing apparatus (scuba), etc.). Proper engineering and/or administrative controls should be used to reduce worker exposure. The facility's respiratory protection program must meet the requirements established in 29 CFR 1910.134, which includes a program for medical evaluation.

Engineering Controls
Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below level of overexposure (from known, suspected or apparent adverse effects).
Exposure Guidelines
Component
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ETHYLENEDIAMINE TETRAACETIC ACID NA SALT (64-02-8)
No exposure limits established

ACRYLIC POLYMER
No exposure limits established

SODIUM LIGNOSULFONATE (8061-51-6)
No exposure limits established

ORGANIC SALT
No exposure limits established

9. PHYSICAL AND CHEMICAL PROPERTIES

Boiling Point
(for component) 212.0 °F (100.0 °C) @ 760 mmHg

Vapor Pressure
(for component) 17.500 mmHg @ 68.00 °F

Specific Vapor Density
No data

Specific Gravity
1.120 @ 68.00 °F

Liquid Density
9.330 lbs/gal @ 68.00 °F
1.120 kg/l @ 20.00 °C

Percent Volatiles
70.0 – 85.0 %

Volatile Organic Compounds (VOC)
.000 %
.000 g/l
.000 lbs/gal

Evaporation Rate
< 1.00

Appearance
DARK BROWN LIQUID

State
LIQUID

Physical Form
HOMOGENEOUS SOLUTION
Color
  DARK BROWN

Odor
  NOT DETERMINED

pH
  13.0

Freezing Point
  28.0 F (-2.2 C)

Octanol/Water Partition Coefficient
  > 1.000

10. STABILITY AND REACTIVITY

Hazardous Polymerization
  Product will not undergo hazardous polymerization.

Hazardous Decomposition
  May form: carbon dioxide and carbon monoxide, sodium oxide.

Chemical Stability
  Stable.

Incompatibility
  Avoid contact with: copper, reactive metals such as aluminum and magnesium, strong mineral acids, strong oxidizing agents.

11. TOXICOLOGICAL INFORMATION

LD 50 and LC 50 Data

ETHYLENEDIAMINETETRAACETATE, SODIUM SALT (CAS# 64-02-8)
  Oral LD50 (male rat): 3030 mg/kg
  Dermal LD50 (rabbit): >5000 mg/kg
  Inhalation LC50: Not available

SODIUM LIGNOSULFONATE (CAS# 8061-51-6)
  Oral LD50 (mouse): 6030 mg/kg
  Dermal LD50: Not available
  Inhalation LC50: Not available

12. ECOLOGICAL INFORMATION

Ecotoxicological Information
  96 hour LC50 rainbow trout (static conditions): 3536.0 mg/l*
  96 hour LC50 fathead minnow (static conditions): 2031.0 mg/l*
  48 hour LC50 Daphnia magna (static conditions): 3536.0 mg/l*

* Based on a similar product formulation.
Chemical Fate Information
BOD5: 58 ppm*
COD: 490,000 ppm*

* Based on a similar product formulation.

13. DISPOSAL CONSIDERATION

Waste Management Information
Dispose of in accordance with all applicable local, state and federal regulations. For assistance with your waste management needs - including disposal, recycling and waste stream reduction, contact Ashland Distribution Company, IC&S Environmental Services Group at 800-637-7922.

14. TRANSPORT INFORMATION

DOT Information - 49 CFR 172.101
DOT Description:
NON-REGULATED BY D.O.T.

Container/Mode:
55 GAL DRUM/TRUCK PACKAGE

NOS Component:
None

RQ (Reportable Quantity) - 49 CFR 172.101
Not applicable

Other Transportation Information
The DOT Transport Information may vary with the container and mode of shipment.

15. REGULATORY INFORMATION

US Federal Regulations
TSCA (Toxic Substances Control Act) Status
TSCA (UNITED STATES) The intentional ingredients of this product are listed.

CERCLA RQ - 40 CFR 302.4(a)
None listed

CERCLA RQ - 40 CFR 302.4(b)
This material has a RQ of 100 lbs as a D002 Corrosive unlisted hazardous substance.

SARA 302 Components - 40 CFR 355 Appendix A
None
Section 311/312 Hazard Class - 40 CFR 370.2
   Immediate(X)  Delayed( )  Fire( )  Reactive( )  Sudden Release of Pressure( )
SARA 313 Components - 40 CFR 372.65
   None
OSHA Process Safety Management 29 CFR 1910
   None listed
EPA Accidental Release Prevention 40 CFR 68
   None listed

International Regulations
   Inventory Status
      DSL (CANADA) The intentional ingredients of this product are listed.

State and Local Regulations
   California Proposition 65
      None

16. OTHER INFORMATION

   The information accumulated herein is believed to be accurate but is not warranted to be whether originating with the company or not. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances.

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