



SAFETY DATA SHEET (SDS)

Amerway 900-25 Flux

Date: 1/1/2020

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Amerway 900 Enviro-Clean 25

CAS No: 141-43-5 2-Aminoethanol

Index No: 603-030-00-8

EC No: 205-483-3

SYNONYMS: Ethanolamine
Monoethanolamine
2-Aminoethyl alcohol

RECOMMENDED USE: Soldering Flux

Details of the supplier of the safety data sheet:

MANUFACTURER:

Amerway Inc.
3701 Beale Ave.,
Altoona, PA 16601

PHONE: 814-944-0200

FAX PHONE: 814-944-1463

EMERGENCY TELEPHONE NUMBER:

CHEMTREC: 800-424-9300

CHEMTREC (Outside US & Canada): 703-527-3887

SECTION 2: HAZARDS IDENTIFICATION

CLASSIFICATION OF CHEMICAL:

This substance is classified and labeled according to the Globally Harmonized System (GHS).



GHS05 Corrosive.



GHS07 Irritant

SIGNAL WORD: Danger

HAZARD STATEMENT:

H227 Combustible liquid.

H302 + H312 + H332 Harmful if swallowed, in contact with skin or if inhaled.

H314 : Causes severe skin burns and eye damage.

H402 Harmful to aquatic life.

PRECAUTIONARY STATEMENT:

P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.



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P310 Immediately call a POISON CENTER or doctor / physician.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

INGREDIENT:

<u>CAS NO.</u>	<u>DESCRIPTION</u>	<u>% WT</u>
141-43-5	2-Aminoethanol	<40

Unlisted percentages are non-hazardous.

SECTION 4: FIRST AID MEASURES

EMERGENCY OVERVIEW: Call a POISON CENTER or physician if you feel unwell.

POTENTIAL HEALTH EFFECTS FOLLOWING

EYE CONTACT: Immediately flush eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Remove contact lenses if present and easy to do so. Get medical attention immediately.

SKIN or HAIR CONTACT: Immediately remove all contaminated clothing and shoes. Rinse skin with water. Get medical advice or attention.

INGESTION: Rinse mouth with water. Call a POISON CENTER or physician if you feel unwell.

INHALATION: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

ACUTE HEALTH HAZARDS: No information available.

CHRONIC HEALTH HAZARDS: No information available.

MOST IMPORTANT SYMPTOMS/EFFECTS: No further relevant information available.

NOTES TO PHYSICIANS OR FIRST AID PROVIDERS: No further relevant information available.

SECTION 5: FIRE-FIGHTING MEASURES

EXPLOSION: Combustible! Above flash point, vapor-air mixtures are explosive within flammable limits noted above.

SUITABLE EXTINGUISHING MEDIA: Water spray, dry chemical, alcohol foam, or carbon dioxide. Water spray may be used to keep fire exposed containers cool. Water may be used to flush spills away from exposures and to dilute spills to non-flammable mixtures.

UNSUITABLE EXTINGUISHING MEDIA: No information available.

FLASH POINT: 85 °C / 185° F

AUTOIGNITION TEMPERATURE: 410 °C / 770 °F

SPECIFIC HAZARDS ARISING FROM THE CHEMICAL: When heated to decomposition, may emit toxic fumes, Carbon oxides.

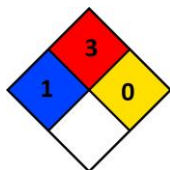
HAZARDOUS COMBUSTION PRODUCTS: No further relevant information available.

NFPA RATINGS (scale 0-4)

Health= 1

Fire= 3

Reactivity= 0

**HMIS RATINGS (scale 0-4)**

Health= 1

Fire= 3

Reactivity= 0

HEALTH	1
FIRE	3
REACTIVITY	0

SPECIAL FIRE FIGHTING EQUIPMENT/PROCEDURES: In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full face piece operated in the pressure demand or other positive pressure mode.

SECTION 6: ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS AND PROTECTIVE EQUIPMENT: Use personal protective equipment. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas. For personal protection see section 8.

ENVIRONMENTAL PRECAUTIONS: Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

CONTAINMENT AND CLEANUP: Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations. Keep in suitable, closed containers for disposal.

SECTION 7: HANDLING AND STORAGE

HANDLING: Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge.

STORAGE: Store in a cool location, Keep receptacle tightly sealed. Store in cool, dry conditions in well sealed receptacle.

OTHER PRECAUTIONS: None.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**EXPOSURE GUIDELINES:****ENGINEERING CONTROLS:****PERSONAL PROTECTIVE EQUIPMENT**

SKIN AND BODY PROTECTION : Protective gloves and clothing.

RESPIRATORY PROTECTION: Use only in a hood or well-ventilated area.

EYE/FACE PROTECTION: Tightly sealed goggles.

OTHER PROTECTIVE CLOTHING OR EQUIPMENT: None.

WORK HYGIENIC PRACTICES:

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Avoid contact the eyes and skin.



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COMPONENTS WITH LIMIT VALUES THAT REQUIRE MONITORING AT THE WORKPLACE:

141-43-5 Ethanolamine (2-Aminoethanol)

PEL - Long term value: 8 mg/m³, 3 ppm

STEL - Long term value: 6 ppm

TLV - Long term value: TWA/ 3 ppm

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE: Fluid

APPEARANCE: Clear

ODOR: Amine like.

ODOR THRESHOLD: Not determined.

pH 12.1 at 100 g/l at 20° C (68° F)

MELTING POINT/RANGE: 10-11°C (50-52°F)

BOILING POINT/RANGE: 82°C (180°F)

FLASH POINT: 91°C (196°F) closed cup

FREEZING POINT/RANGE:

EVAPORATION RATE: Not determined.

FLAMMABILITY (SOLID, GAS): Not applicable.

FLAMMABILITY OR EXPLOSIVE LIMITS

UPPER: 17 Vol%

LOWER: 2.5 Vol%

VAPOR PRESSURE: 0.5 hPa at 20°C (68° F)

VAPOR DENSITY: 2.11 – (Air = 1.0)

RELATIVE DENSITY: 1.012 g/cm³ at 25 °C (77 °F)

SOLUBILITY IN WATER: 1,000 g/l at 20 °C (68 °F) - completely miscible

PARTITION COEFFICIENT; N-OCTANOL/WATER: log Pow: -2.3 at 25 °C (77 °F) - Bioaccumulation is not expected.

AUTOIGNITION TEMPERATURE: 424 °C (795 °F) at 1,013 hPa - ASTM E-659

DECOMPOSITION TEMPERATURE: Not determined.

VISCOSITY: 23.5 mm²/s at 20 °C (68 °F) - 9.8 mm²/s at 40 °C (104 °F)

SECTION 10: STABILITY AND REACTIVITY

STABILITY: Absorbs carbon dioxide (CO₂) from air. Stable under recommended storage conditions.

HAZARDOUS REACTIONS: Highly flammable liquid and vapor.

CONDITIONS TO AVOID: Exposure to moisture. Heat, flames, sparks.

INCOMPATIBILITY (MATERIAL TO AVOID): Strong acids and oxidizing agents, Iron, Copper, Brass, Rubber

HAZARDOUS DECOMPOSITION OR BY-PRODUCTS: Hazardous decomposition products formed under fire conditions. - Carbon oxides, Nitrogen oxides (NO_x)

SECTION 11: TOXICOLOGICAL INFORMATION

Acute toxicity

LD50 Oral - Rat - male and female - 1,089 mg/kg
(OECD Test Guideline 401)

LD50 Dermal - Rabbit - 1,015 mg/kg

Remarks: (RTECS) No data available



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Skin corrosion/irritation

Skin - Rabbit

Result: Corrosive - 4 h

(OECD Test Guideline 404)

Classified according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2)

Serious eye damage/eye irritation

Eyes - Rabbit

Result: Corrosive

(OECD Test Guideline 405) Causes serious eye damage.

Respiratory or skin sensitization

Maximisation Test - Guinea pig

Result: negative

Remarks: (ECHA)

Germ cell mutagenicity

Ames test

Escherichia coli/Salmonella typhimurium

Result: negative

Chromosome aberration test in vitro

rat hepatocytes

Result: negative

In vitro mammalian cell gene mutation test

mouse lymphoma cells

Result: negative

In vitro mammalian cell gene mutation test

Chinese hamster fibroblasts

Result: negative

(ECHA)

OECD Test Guideline 474

Mouse - male and female - Bone marrow

Result: negative

Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

Reproductive toxicity No data available

Specific target organ toxicity - single exposure Inhalation, May cause respiratory irritation.

Specific target organ toxicity - repeated exposure No data available

Aspiration hazard No data available

Additional Information

Repeated dose toxicity - Rat - male and female - Oral - > 75 Days - No observed adverse effect level - 300 mg/kg

(ECHA)

RTECS: KJ5775000

burning sensation, Cough, wheezing, laryngitis, Shortness of breath, spasm, inflammation and edema of the larynx, spasm, inflammation and edema of the bronchi, pneumonitis, pulmonary edema, Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin., To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Liver - Irregularities - Based on Human Evidence

Liver - Irregularities - Based on Human Evidence

SECTION 12: ECOLOGICAL INFORMATION

ECOTOXICITY:

AQUATIC TOXICITY:



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Toxicity to fish semi-static test LC50 - Cyprinus carpio (Carp) - 349 mg/l - 96 h
 (Tested according to Directive 92/69/EEC.)

Toxicity to daphnia static test EC50 - Daphnia magna (Water flea) - 65 mg/l - 48 h
and other aquatic Regulation (EC) No. 440/2008, Annex, C.2)
invertebrates

Toxicity to algae static test ErC50 - Pseudokirchneriella subcapitata (green algae) - 2.8 mg/l - 72 h - (OECD Test Guideline 201)
 static test NOEC - Pseudokirchneriella subcapitata (green algae) - 1 mg/l - 72 h (OECD Test Guideline 201)

Toxicity to bacteria static test EC10 - activated sludge - > 1,000 mg/l - 30 min (OECD Test Guideline 209)

PERSISTENCE AND DEGRADABILITY:

Biodegradability aerobic - Exposure time 21 d Result: > 90 % - Readily biodegradable. (OECD Test Guideline 301A)
 Result: 90 - 100 % - Readily biodegradable. (OECD Test Guideline 301F)

Biochemical Oxygen 800 mg/g
Demand (BOD) Remarks: (IUCLID)

Theoretical oxygen 1,310 mg/g
Demand Remarks: (IUCLID)

BIOACCUMULATIVE POTENTIAL: No data available.

MOBILITY IN SOIL: No further relevant information available.

OTHER ADVERSE EFFECTS: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Toxic to aquatic life.

SECTION 13: DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHODS: Disposal must be made according to all federal, state and local regulations that may apply. Contact a licensed professional waste disposal service to dispose of this material.

SECTION 14: TRANSPORT INFORMATION

LAND TRANSPORT (DOT/ADR/RID)

UN/NA NUMBER: UN2491(Not Regulated)
UN PROPER SHIPPING NAME: Ethanolamine
TRANSPORT HAZARD CLASS(ES): Class 8
HAZARD LABEL(S):
PACKING GROUP: III
ENVIRONMENTAL HAZARDS: No
TRANSPORT IN BULK: according to Annex II of MARPOL 73/78 and the IBC Code



INLAND WATERWAY TRANSPORT (ADN)

UN/NA NUMBER: UN2491(Not Regulated)
UN PROPER SHIPPING NAME: Ethanolamine
TRANSPORT HAZARD CLASS(ES): Class 8
HAZARD LABEL(S):



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PACKING GROUP: III
ENVIRONMENTAL HAZARDS: No
TRANSPORT IN BULK: according to Annex II of MARPOL 73/78 and the IBC Code

SEA TRANSPORT (IMDG)

UN/NA NUMBER: UN2491(Not Regulated)
UN PROPER SHIPPING NAME: Ethanolamine
TRANSPORT HAZARD CLASS(ES): Class 8
HAZARD LABEL(S):
PACKING GROUP: III
ENVIRONMENTAL HAZARDS: No
TRANSPORT IN BULK: according to Annex II of MARPOL 73/78 and the IBC Code

AIR TRANSPORT (ICAO-TI/IATA-DGR)

UN/NA NUMBER: UN2491(Not Regulated)
UN PROPER SHIPPING NAME: Ethanolamine
TRANSPORT HAZARD CLASS(ES): Class 8
HAZARD LABEL(S):
PACKING GROUP: III
ENVIRONMENTAL HAZARDS: No
TRANSPORT IN BULK: according to Annex II of MARPOL 73/78 and the IBC Code

SECTION 15: REGULATORY INFORMATION

U.S. Federal Regulations

TSCA 12(b) All components listed for the subject finished product are on the TSCA Inventory of Chemical Substances and are not subject to any chemical specific regulation under TSAC Section 12(b) export notification requirements delineated at 40 CFR part 707, subpart D.

All ingredients are listed or exempt from listing.

SARA 313 Substance is listed.

SARA 311/312 Hazardous Categorization

Acute Health Hazard
Chronic Health Hazard
Fire Hazard

Proposition 65

Chemicals known to cause cancer: None of the ingredients listed.

Chemicals known to cause reproductive toxicity for females: None of the ingredients listed.

Chemicals known to cause reproductive toxicity for males: None of the ingredients listed.

Chemicals known to cause developmental toxicity: This product contains a chemical(s) known to the State of California to cause birth defects and/or other reproductive harm.

Carcinogenic Categories

None of the materials in this product are listed in NTP, IARC, or OSHA as carcinogens.

EPA (Environmental Protection Agency):

TLV (Threshold Limit Value established by ACGIH)

NIOSH-Ca (National Institute of Occupational Safety and Health)

OSHA-Ca (Occupational Safety & Health Administration)



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SECTION 16: OTHER INFORMATION

PREPARATION INFORMATION

NAME: Terry Buck
COMPANY: Amerway, Inc.
EMAIL: tbuck@amerway.com

CREATION DATE: 01/01/2012

REVISION DATE: 11/25/2019

REVISION SUMMARY: This document has been updated to comply with the US OSHA HazCom 2012 Standard replacing the current legislation under 29 CFR 1910.1200 to align with the Globally Harmonized System of Classification and Labeling of Chemicals (GHS)

DISCLAIMER:

This information is given in good faith, no warranty, express or implied is made. Amerway Inc. makes no representations and assumes no responsibility as to the accuracy, completeness or suitability of this data for any purchasers use. The data on this Safety Data Sheet relates only to this product and does not relate to use with any other material or in any process. All chemical products should be used only by, or under the direction of, technically qualified personnel who are aware of the hazards involved and the necessity for reasonable care in handling. Hazard communication regulations require that employees must be trained on how to use a Safety Data Sheet as a source for hazard information.

End of SDS