



Safety Data Sheet

AV Ultrasonic Cleaner

SECTION 1: Identification

1.1 Product identifier

Product name AV Ultrasonic Cleaner

1.3 Recommended use of the chemical and restrictions on use

Ultrasonic Cleaner

1.4 Supplier's details

Name Anderson & Vreeland
Address 15348 US Highway 127 EW
Bryan, OH 43506
USA

Telephone (419) 636-5002
email www.andersonvreeland.com

1.5 Emergency phone number(s)

ChemTel LLC
(800) 255-3924 (North America)
+1 (813) 248-0585 (International)

SECTION 2: Hazard identification

General hazard statement

The specific chemical identity and/or exact percentage of composition have been withheld as a trade secret [29 CFR 1910.1200].

2.1 Classification of the substance or mixture

GHS classification in accordance with: (US) OSHA (29 CFR 1910.1200)

- Eye damage/irritation, Cat. 1
- Skin corrosion/irritation, Cat. 1A
- Toxic to reproduction, Cat. 2

2.2 GHS label elements, including precautionary statements

Pictogram

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Signal word

Danger

Hazard statement(s)

H314 Causes severe skin burns and eye damage
 H318 Causes serious eye damage
 H361 Suspected of damaging fertility or the unborn child.

Precautionary statement(s)

P201 Obtain special instructions before use.
 P202 Do not handle until all safety precautions have been read and understood.
 P260 Do not breathe dust/fume/gas/mist/vapors/spray.
 P264 Wash ... thoroughly after handling.
 P280 Wear protective gloves/protective clothing/eye protection/face protection.
 P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
 P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
 P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
 P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.
 P308+P313 IF exposed or concerned: Get medical advice/attention.
 P310 Immediately call a POISON CENTER/doctor/...
 P321 Specific treatment (see ... on this label).
 P363 Wash contaminated clothing before reuse.
 P405 Store locked up.
 P501 Dispose of contents/container to an approved waste disposal plant.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Components

Component	Concentration
Potassium hydroxide (CAS no.: 1310-58-3; EC no.: 215-181-3; Index no.: 019-002-00-8) CLASSIFICATIONS: Skin corrosion/irritation, Cat. 1A; Acute toxicity, oral, Cat. 4. HAZARDS: H302 - Harmful if swallowed; H314 - Causes severe skin burns and eye damage.	1 - 10 % (weight)
Ethanolamine (CAS no.: 141-43-5; EC no.: 205-483-3; Index no.: 603-030-00-8) CLASSIFICATIONS: Acute toxicity, inhalation, Cat. 4; Acute toxicity, dermal, Cat. 4; Acute toxicity, oral, Cat. 4; Skin corrosion/irritation, Cat. 1B. HAZARDS: H302 - Harmful if swallowed; H312 - Harmful in contact with skin; H314 - Causes severe skin burns and eye damage; H332 - Harmful if inhaled.	<= 3 % (weight)
2-Butoxyethanol (CAS no.: 111-76-2; EC no.: 203-905-0; Index no.: 603-014-00-0) CLASSIFICATIONS: Skin corrosion/irritation, Cat. 2; Serious eye damage/eye irritation, Cat. 2; Acute toxicity, dermal, Cat. 4; Acute toxicity, inhalation, Cat. 4; Acute toxicity, oral, Cat. 4. HAZARDS: H302 - Harmful if swallowed; H312 - Harmful in contact with skin; H315 - Causes skin irritation; H319 - Causes serious eye irritation; H332 - Harmful if inhaled.	<= 2 % (weight)
Diethylene glycol butyl ether (CAS no.: 112-34-5; EC no.: 203-961-6; Index no.: 603-096-00-8) CLASSIFICATIONS: Serious eye damage/eye irritation, Cat. 2. HAZARDS: H319 - Causes serious eye irritation.	<= 2 % (weight)
Sodium xylenesulfonate (CAS no.: 1300-72-7; EC no.: 215-090-9) CLASSIFICATIONS: Eye damage/irritation, Cat. 2A; Skin corrosion/irritation, Cat. 2; Respiratory. HAZARDS: H315 - Causes skin irritation; H319 - Causes serious eye irritation; H335 - May cause respiratory irritation.	<= 5 % (weight)
2-ETHYLHEXANOIC ACID (CAS no.: 149-57-5; EC no.: 205-743-6; Index no.: 607-230-00-6) CLASSIFICATIONS: Toxic to reproduction, Cat. 2. HAZARDS: H361d - .	<= 2 % (weight)

SECTION 4: First-aid measures

4.1 Description of necessary first-aid measures

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General advice	Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.
If inhaled	Remove person to fresh air and keep comfortable for breathing. Call a poison center or doctor if you feel unwell. Acute and delayed symptoms and effects: May cause respiratory irritation. Signs/symptoms may include burning pain in the nose and throat, coughing, wheezing, shortness of breath and pulmonary edema.
In case of skin contact	Take off immediately all contaminated clothing. Rinse skin with water/shower for at least 15 minutes. Call a poison center or doctor if irritation develops or persists. Wash contaminated clothing before reuse. Acute and delayed symptoms and effects: Causes severe skin burns. Signs/symptoms may include localized redness, swelling, itching, intense pain, blistering, ulceration, and tissue destruction.
In case of eye contact	Rinse cautiously with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center or doctor. Acute and delayed symptoms and effects: Causes serious eye damage. Signs/symptoms may include cloudy appearance of the cornea, chemical burns, severe pain, tearing, ulcerations, significantly impaired vision or complete loss of vision.
If swallowed	Rinse mouth. Do NOT induce vomiting. Immediately call a poison center or doctor. If vomiting occurs naturally, have victim lean forward to reduce the risk of aspiration. Never give anything by mouth to an unconscious person. Acute and delayed symptoms and effects: Harmful if swallowed. Causes burns to nose, mouth, throat, and digestive tract. Signs/symptoms may include severe mouth, throat and abdominal pain, nausea, vomiting, and diarrhea, blood in the feces and/or vomit us may also be seen.

4.2 Most important symptoms/effects, acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11

4.3 Indication of immediate medical attention and special treatment needed, if necessary

No data available.

SECTION 5: Fire-fighting measures

5.1 Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2 Specific hazards arising from the chemical

Ethanolamine: Carbon oxides, Nitrogen oxides (NO_x)

5.3 Special protective actions for fire-fighters

Avoid any skin contact. Effects of contact or inhalation may be delayed. Fire may produce irritating, corrosive and/or toxic gases. Runoff from fire control or dilution water may be corrosive and/or toxic and cause pollution. Wear positive pressure self-contained breathing apparatus (SCBA). Wear chemical protective clothing that is specifically recommended by the manufacturer. It may provide little or no thermal protection. Structural firefighters' protective

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clothing provides limited protection in fire situations ONLY; it is not effective in spill situations where direct contact with the substance is possible.

Further information

Use water spray to cool unopened containers.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Wear respiratory protection if necessary. Avoid breathing gas, mist, vapors, or spray. Ensure adequate ventilation. Evacuate personnel to safe areas. For personal protection see section 8.

6.2 Environmental precautions

Do not let product enter drains.

6.3 Methods and materials for containment and cleaning up

Stop leak if you can do it without risk. Sweep up and shovel into suitable containers for disposal.

Reference to other sections

For disposal see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Do not swallow. Do not breathe mist, vapors, or spray. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. See Section 8 for information on Personal Protective Equipment.

7.2 Conditions for safe storage, including any incompatibilities

Store locked up. Store away from incompatible materials. See Section 10 for information on Incompatible Materials. Keep out of the reach of children.

Specific end use(s)

Apart from the uses mentioned in section 1 no other specific uses are stipulated.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

CAS: 111-76-2 (EC: 203-905-0)

2-Butoxyethanol

20 ppm

97 mg/m³ PEL inhalation; ACGIH (USA): 20 ppm TLV[®] inhalation; 20 ppm TWA inhalation; Cal/OSHA: 20 ppm

PEL inhalation; NIOSH: 5 ppm REL inhalation; 5 ppm

24 mg/m³ TWA inhalation; OSHA: 50 ppm PEL inhalation; 50 ppm

240 mg/m³ TWA inhalation

CAS: 112-34-5 (EC: 203-961-6)

Diethylene glycol butyl ether

ACGIH (USA): 10 ppm TLV[®]

CAS: 1310-58-3 (EC: 215-181-3)

Potassium hydroxide

ACGIH (USA): 2 mg/m³ PEL-C inhalation; Cal/OSHA (USA): 2 mg/m³ PEL-C inhalation; NIOSH (USA): 2

mg/m³ PEL-C inhalation

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CAS: 141-43-5

Ethanolamine

ACGIH: 6 ppm STEL inhalation; 3 ppm TLV® inhalation; Cal/OSHA: 3 ppm, (ST) 6 ppm PEL inhalation; NIOSH: 3 ppm, (ST) 6 ppm REL inhalation; OSHA: 3 ppm PEL inhalation

CAS: 149-57-5 (EC: 205-743-6)

2-Ethylhexanoic acid

ACGIH: 5 mg/m³ TLV® inhalation ((exposed opulation type, blank for non-DNEL))

8.2 Appropriate engineering controls

Use ventilation adequate to keep exposures (airborne levels of dust, fume, vapor, gas, etc.) below recommended exposure limits.

8.3 Individual protection measures, such as personal protective equipment (PPE)

Pictograms



Eye/face protection

Tightly fitting safety goggles. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Ensure that eyewash stations and/or safety showers are close to the workstation location if working with concentrated product.

Skin protection

Wear protective gloves. Consult manufacturer specifications for further information.

Body protection

Wear protective clothing. Clothing with full length sleeves and pants should be worn. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multipurpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Thermal hazards

No data available.

Environmental exposure controls

Do not let product enter drains.

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

Appearance/form (physical state, color, etc.)	Liquid
Odor	Characteristic
Odor threshold	No data available.
pH	>13.5
Melting point/freezing point	No data available.
Initial boiling point and boiling range	No data available.

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Flash point	No data available.
Evaporation rate	No data available.
Flammability (solid, gas)	No data available.
Upper/lower flammability limits	No data available.
Upper/lower explosive limits	No data available.
Vapor pressure	No data available.
Vapor density	No data available.
Relative density	1.080
Solubility(ies)	Completely soluble
Partition coefficient: n-octanol/water	No data available.
Auto-ignition temperature	No data available.
Decomposition temperature	No data available.
Viscosity	No data available.
Explosive properties	No data available.
Oxidizing properties	No data available.

Other safety information

No data available.

SECTION 10: Stability and reactivity

10.1 Reactivity

Contact with incompatible materials. Sources of ignition. Exposure to heat.

10.2 Chemical stability

Stable under normal storage conditions.

10.3 Possibility of hazardous reactions

No data available.

10.4 Conditions to avoid

Heat, flames and sparks. Incompatible products. Keep away from open flames, hot surfaces and sources of ignition.

10.5 Incompatible materials

Strong acids and oxidizing agents, Iron, Copper, Light metals, Brass, Rubber

10.6 Hazardous decomposition products

No data available.

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity

Likely Routes of Exposure: Eye contact. Skin contact. Inhalation. Ingestion.

Components:

2-Butoxyethanol

LD50 Oral - Rat - 880 mg/kg

Remarks: OECD Test Guideline 401

LD50 Skin - Rabbit - 1,060 mg/kg

Remarks: OECD Test Guideline 402

LD50 Intraperitoneal - Rat - 220 mg/kg

LD50 Intravenous - Rat - 307 mg/kg

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LD50 Oral - Rat - 470 mg/kg

LC50 Inhalation - Rat - 450 ppm

Remarks: Behavioral:Ataxia. Nutritional and Gross Metabolic:Weight loss or decreased weight gain

2-Ethylhexanoic acid

LD50 Oral - Rat - 3,000 mg/kg

LD50 Skin - Rabbit - > 2,000 mg/kg

Diethylene glycol butyl ether

LD50 Oral - Rat - male - 7,291 mg/kg

Remarks: (OECD Test Guideline 401)

LD50 Skin - Rabbit - male - 2,764 mg/kg

Remarks: (OECD Test Guideline 402)

MONOETHANOLAMINE

LD50 Oral - Rat - 1,089 mg/kg

LD50 Skin - Rabbit - 1,015 mg/kg

Potassium hydroxide

LD50 Oral - Rat - 333 mg/kg

Sodium xylenesulfonate

LD50 Oral - Rat -male and female - >= 7,200 mg/kg

LD50 Oral - Rabbit -male and female - > 2,000 mg/kg

Skin corrosion/irritation

Causes severe skin burns. Signs/symptoms may include localized redness, swelling, itching, intense pain, blistering, ulceration, and tissue destruction.

Serious eye damage/irritation

Causes serious eye damage. Signs/symptoms may include cloudy appearance of the cornea, chemical burns, severe pain, tearing, ulcerations, significantly impaired vision or complete loss of vision.

Respiratory or skin sensitization

May cause an allergic skin reaction

Germ cell mutagenicity

May cause genetic defects.

Carcinogenicity

2-Butoxyethanol

Result: 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 identified as a carcinogen or potential carcinogen by OSHA.

Diethylene glycol butyl ether

Result: 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.

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

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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 identified as a carcinogen or potential carcinogen by OSHA.

Potassium hydroxide

Result: This product is or contains a component that is not classifiable as to its carcinogenicity based on its IARC, ACGIH, NTP, or EPA classification

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

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

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.

Sodium xylenesulfonate

Result: 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.

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

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 identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity

May damage fertility or the unborn child

STOT-single exposure

No data available.

STOT-repeated exposure

Causes damage to organs through prolonged or repeated exposure

Aspiration hazard

May be fatal if swallowed and enters airways

Additional information

Potassium hydroxide : Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin., spasm, inflammation and edema of the larynx, spasm, inflammation and edema of the bronchi, pneumonitis, pulmonary edema, burning sensation, Cough, wheezing, laryngitis, Shortness of breath, Headache, Nausea

Ethanolamine: *TOXICITY:

typ. dose mode specie amount unit other

LD50 orl rat 2050 mg/kg

LD50 ipr rat 67 mg/kg

LD50 ivn rat 225 mg/kg

LD50 orl rbt 1000 mg/kg

LD50 scu rat 1500 mg/kg

LD50 skn rbt 1000 mg/kg

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LD50 ims rat 1750 mg/kg
LD50 orl mus 700 mg/kg
LD50 ipr mus 50 mg/kg
LD50 orl gpg 620 mg/kg

*AQTX/TLM96: Not available

*SAX TOXICITY EVALUATION:

THR: Poison by intraperitoneal route. Moderately toxic by ingestion, skin contact, subcutaneous, intravenous and intramuscular routes.

*CARCINOGENICITY: Not available

*MUTATION DATA:

test Lowest dose | test Lowest dose

----- | -----
cyt-hmn-lym 100 umol/L |

*TERATOGENICITY:

Reproductive Effects Data:

TDLo: orl-rat 500 mg/kg (6-15D preg)

*STANDARDS, REGULATIONS & RECOMMENDATIONS:

OSHA: Federal Register (1/19/89) and 29 CFR 1910.1000 Subpart Z

Transitional Limit: PEL-TWA 3 ppm [610]

Final Limit: PEL-TWA 3 ppm; STEL 6 ppm [610]

ACGIH: TLV-TWA 3 ppm; STEL 6 ppm [015,415,421,610]

NIOSH Criteria Document: None

NFPA Hazard Rating: Health (H): 2

Flammability (F): 2

Reactivity (R): 0

H2: Materials hazardous to health, but areas may be entered freely with full-faced mask self-contained breathing apparatus which provides eye protection (see NFPA for details).

F2: Materials which must be moderately heated before ignition will occur (see NFPA for details).

R0: Materials which are normally stable even under fire exposure conditions and which are not reactive with water (see NFPA for details).

*OTHER TOXICITY DATA:

Skin and Eye Irritation Data:

skn-rbt 505 mg open MOD

eye-rbt 763 ug SEV

Standards and Regulations: DOT-Hazard: Corrosive material; Label: Corrosive

Status: EPA TSCA Chemical Inventory, 1986

EPA TSCA Test Submission (TSCATS) Data Base, January 1989

NIOSH Analytical Methods: see Aminoethanol compounds, 2007

Meets criteria for proposed OSHA Medical Records Rule

SECTION 12: Ecological information

Toxicity

2-Butoxyethanol

LD50 Oral - Rat - 880 mg/kg

Remarks: OECD Test Guideline 401

LD50 Skin - Rabbit - 1,060 mg/kg

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Remarks: OECD Test Guideline 402
LD50 Intraperitoneal - Rat - 220 mg/kg
LD50 Intravenous - Rat - 307 mg/kg
LD50 Oral - Rat - 470 mg/kg
LC50 Inhalation - Rat - 450 ppm
Remarks: Behavioral:Ataxia. Nutritional and Gross Metabolic:Weight loss or decreased weight gain

2-Ethylhexanoic acid
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Diethylene glycol butyl ether
LD50 Oral - Rat - male - 7,291 mg/kg
Remarks: (OECD Test Guideline 401)
LD50 Skin - Rabbit - male - 2,764 mg/kg
Remarks: (OECD Test Guideline 402)

MONOETHANOLAMINE
LD50 Oral - Rat - 1,089 mg/kg
LD50 Skin - Rabbit - 1,015 mg/kg

Potassium hydroxide
LD50 Oral - Rat - 333 mg/kg

Sodium xylenesulfonate
LD50 Oral - Rat -male and female - >= 7,200 mg/kg
LD50 Oral - Rabbit -male and female - > 2,000 mg/kg

Persistence and degradability

Diethylene glycol butyl ether
aerobic - 28 d
Result: 91.7 % - Readily biodegradable
Remarks: OECD Test Guideline 301B)

MONOETHANOLAMINE
- 28 d
Result: > 70 % - Readily biodegradable

Bioaccumulative potential

No data available on product

Mobility in soil

No data available.

Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

SECTION 13: Disposal considerations

Disposal of the product

Disposal should be in accordance with applicable Federal, State and local laws and regulations. Local regulations may be more stringent than State or Federal requirements.

Disposal of contaminated packaging

Dispose of as unused product.

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SECTION 14: Transport information

DOT (US)

UN Number: UN1719

Class: 8

Packing Group: II

Proper Shipping Name: Caustic alkali liquids, n.o.s. (Potassium hydroxide)

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations specific for the product in question

SARA 311/312 Hazards

Acute Health Hazard

California Prop. 65 Components

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

Massachusetts Right To Know Components

Potassium hydroxide

CAS-No. 1310-58-3

Ethylene glycol monobutyl ether

CAS: 111-76-2

New Jersey Right To Know Components

Potassium hydroxide

CAS-No. 1310-58-3

Common name: Ethanolamine

CAS number: 141-43-5

Ethylene glycol monobutyl ether

CAS: 111-76-2

Sodium xylenesulphonate

CAS-No. 1300-72-7

2-(2-Butoxyethoxy)ethanol

CAS-No. 112-34-5

Common name: 2-ETHYLHEXANOIC ACID

CAS number: 149-57-5

Pennsylvania Right To Know Components

Potassium hydroxide

CAS-No. 1310-58-3

Common name: Ethanolamine

CAS number: 141-43-5

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Ethylene glycol monobutyl ether
CAS: 111-76-2
2-(2-Butoxyethoxy)ethanol
CAS-No. 112-34-5
Sodium xylenesulphonate
CAS-No. 1300-72-7
Common name: 2-ETHYLHEXANOIC ACID
CAS number: 149-57-5

SARA 313 Components

The following components are subject to reporting levels established by SARA Title III, Section 313:

Ethylene glycol monobutyl ether
CAS: 111-76-2

HMIS Rating

Health	4
Flammability	0
Physical hazard	0
Personal protection	

NFPA Rating

Health hazard	3
Fire hazard	0
Reactivity hazard	0
Special hazard	

SECTION 16: Other information

16.1 Further information/disclaimer

DISCLAIMER: The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Buyer accepts liability for determining if the products are suitable for buyer's use and resale. Seller's liability of any damages will never exceed purchase price or replacement of product.