

Preparation Date 20-11-2014

Revision Date 10-11-2015

Revision Number 5.1

**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1. Product Identifier**

Product code 51362  
Product name **CLEARWAY 1**  
Pure substance/mixture Mixture

**1.2. Relevant identified uses of the substance or mixture and uses advised against**

Recommended use De-icing  
Uses advised against -

**1.3. Details of the supplier of the safety data sheet****Manufacturer**

Taminco Finland Oy  
a subsidiary of Eastman Chemical Company  
Typpitie 1  
FI-90620 Oulu  
Finland  
T: +358 207 108 300  
F: +358 207 108 301

For further information, please contact

E-mail address emnmsds@eastman.com

**1.4. Emergency telephone number**

(+32) 9 254 10 36

**SECTION 2: Hazards identification****2.1. Classification of the substance or mixture**

Regulation (EC) No 1272/2008  
Not Hazardous

**2.2. Label Elements**

Product Identifier  
Not Hazardous

**2.3. Other Hazards**

Mist  
high concentrations  
May cause respiratory irritation

Skin Contact  
Repeated or prolonged exposure  
May cause slight irritation

Eye contact  
May cause slight irritation

### SECTION 3: Composition/information on ingredients

#### 3.1 Substances

not applicable

#### 3.2 MIXTURES

No Hazardous components According to EC Regulation 1907/2006/EC

Full text of H- and EUH-phrases: see section 16

#### **Additional Information**

Contains : Potassium acetate

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

<b>General advice</b>	If symptoms persist, call a physician. Show this safety data sheet to the doctor in attendance.
<b>Inhalation</b>	Remove to fresh air. Keep patient warm and at rest.
<b>Skin contact</b>	Flush with water.
<b>Eye contact</b>	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If eye irritation persists, consult a specialist.
<b>Ingestion</b>	Rinse mouth with water. Obtain medical attention.

#### 4.2. Most important symptoms and effects, both acute and delayed

<b>Symptoms</b>	May cause skin and eye irritation May cause irritation of respiratory tract
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#### 4.3. Indication of any immediate medical attention and special treatment needed

<b>Notes to physician</b>	Treat symptomatically
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### SECTION 5: Fire fighting measures

#### 5.1. Extinguishing media

**Suitable extinguishing media**

Alcohol-resistant foam, carbon dioxide (CO<sub>2</sub>), water spray

**Extinguishing media which must not be used for safety reasons**

No information available

**5.2. Special hazards arising from the substance or mixture**

Thermal decomposition can lead to release of irritating and toxic gases and vapors.

**Hazardous combustion products** Acetic acid  
carbon oxides

**5.3. Advice for firefighters**

Wear self-contained breathing apparatus and protective suit.

**SECTION 6: Accidental release measures****6.1. Personal precautions, protective equipment and emergency procedures****Personal precautions**

Use personal protective equipment.

**For emergency responders**

Use personal protection recommended in Section 8.

**6.2. Environmental precautions**

Try to prevent the material from entering drains or water courses.

**6.3. Methods and material for containment and cleaning up****Methods for containment**

Prevent further leakage or spillage if safe to do so. Dam up.

**Methods for cleaning up**

Take up mechanically and collect in suitable container for disposal. Small amounts. ∴ Flush with plenty of water.

**6.4. Reference to other sections**

See section 8 for more information. See section 13 for more information.

**Section 7: HANDLING AND STORAGE****7.1. Precautions for safe handling****Handling**

Use only in well-ventilated areas. Avoid contact with skin, eyes and clothing. Ensure that eyewash stations and safety showers are close to the workstation location.

**Hygiene measures**

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and immediately after handling the product.

**7.2. Conditions for safe storage, including any incompatibilities****Storage**

Keep container tightly closed in a dry and well-ventilated place. Incompatible Materials: ∴ Oxidizing agents. strong acids. Mineral acid.

**7.3. Specific end use(s)****Specific use(s)**

De-icing

**Risk Management Methods (RMM)**

The information required is contained in this Material Safety Data Sheet.

**Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION****8.1. Control parameters****Derived No Effect Level (DNEL)** No information available.**Predicted No Effect Concentration (PNEC)** No information available.**8.2. Exposure controls****Engineering measures** Ensure adequate ventilation.**Personal protective equipment****Eye protection**

tightly fitting safety goggles. / . face-shield.

**Hand protection**

PVC -. rubber gloves. The selected protective gloves have to satisfy the specifications of EU Directive 89/689/EEC and the standard EN 374 derived from it. The suitability for a specific workplace should be discussed with the producers of the protective gloves. The exact break through time can be obtained from the protective glove producer and this has to be observed.

**Skin and body protection**

Suitable protective clothing.

**Respiratory protection**

None under normal use conditions.

**Environmental exposure controls** No information available.**Section 9: PHYSICAL AND CHEMICAL PROPERTIES****9.1. Information on basic physical and chemical properties**

<b>Physical State</b>	liquid		
<b>Appearance</b>	clear	<b>Odor</b>	odorless
<b>Colour</b>	Colorless		

<b>Property</b>	<b>Values</b>	<b>Remarks • Method</b>
<b>pH</b>	10.5 - 11.5	-
<b>Melting point/freezing point</b>	< - 60 °C	-
<b>Boiling point/range</b>	no data available	-
<b>Flash point</b>	Not flammable	closed cup
<b>Evaporation rate</b>	no data available	-
<b>Flammability (solid, gas)</b>	Not applicable	
<b>Flammability Limit in Air</b>		
<b>Upper flammability limit:</b>	-	
<b>Lower flammability limit:</b>	-	
<b>Vapor Pressure</b>	no data available	-
<b>Vapor Density</b>	no data available	-
<b>Specific Gravity</b>	1.25 - 1.30	-
<b>Water solubility</b>	completely soluble	-
<b>Partition coefficient</b>		-
<b>Autoignition temperature</b>	no data available	-
<b>Decomposition temperature</b>	Not applicable	-

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Kinematic viscosity	no data available	-
Dissociation constant	Not applicable	-
Surface tension	Not applicable	-
Oxidising properties	The substance or mixture is not classified as oxidizing	

**9.2. Other information**

Dynamic viscosity	10 mPas @ 20 °C
Density	1.25 - 1.30 g/cm3 @ 20 °C

**Section 10: STABILITY AND REACTIVITY****10.1. Reactivity**

See Incompatible Materials .

**10.2. Chemical stability**

Stable under normal conditions.

Explosion data

Sensitivity to Mechanical Impact	no data available.
Sensitivity to Static Discharge	no data available.

**10.3. Possibility of hazardous reactions****polymerization**

Hazardous polymerization does not occur.

**Possibility of hazardous reactions**

Stable under normal conditions.

**10.4. Conditions to avoid**

elevated temperature.

**10.5. Incompatible materials**

Oxidizing agents. strong acids. Mineral acid.

**10.6. Hazardous decomposition products**

Thermal decomposition. Acetic acid. Fumes.

Decomposes by reaction with strong acids. Hazardous Decomposition Products. Acetic acid.

**Section 11: TOXICOLOGICAL INFORMATION****11.1. Information on toxicological effects****Product Information**

LD50/oral/rat =	> 2000 mg/kg
LD50/dermal/rat =	No data available
LC50/inhalation/4h/rat =	No data available
Eye irritation	Not classified
Skin irritation	Not classified
sensitisation	no data available

**Human experience**

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**Human experience**

Inhalation of vapours in high concentration may cause irritation of respiratory system  
Skin  
Prolonged or repeated exposure may cause:  
Substance may cause slight skin irritation  
Eyes  
May cause slight irritation

**Section 12: ECOLOGICAL INFORMATION****12.1. Toxicity****Product Information**

LC50 / 48 hour / fish	8700 mg/l
EC50/48h/Daphnia magna =	40000 mg/L
EC50/72h/algae =	15000 mg/l
Toxicity to bacteria 72-Hour EC50	108500 mg/l

**12.2. Persistence and degradability**

Readily biodegradable.  
Biochemical oxygen demand (BOD). 210 mg/g (5 d).

**12.3. Bioaccumulative potential**

Not likely to bioaccumulate

**12.4. Mobility in soil**

Soluble in water  
Volatility : No

**12.5. Results of PBT and vPvB assessment**

This mixture contains no substance considered to be persistent, bioaccumulating nor toxic (PBT)  
This mixture contains no substance considered to be very persistent nor very bioaccumulating (vPvB)

**12.6. Other adverse effects**

None known

**Section 13: DISPOSAL CONSIDERATIONS****13.1. Waste treatment methods****Waste from residues / unused products**

Disposal should be in accordance with applicable regional, national and local laws and regulations  
Waste codes should be assigned by the user based on the application for which the product was used

**Contaminated packaging**

Disposal should be in accordance with applicable regional, national and local laws and regulations.

## Section 14: TRANSPORT INFORMATION

**IMDG/IMO**

14.1 UN-No	not regulated
14.2 Proper shipping name	Not regulated
14.3 Hazard Class	not regulated
14.4 Packing group	not regulated
14.5 Marine pollutant	No
Environmental hazard	No
14.6 Special Provisions	Not relevant
14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	not applicable

**RID**

14.1 UN-No	not regulated
14.2 Proper shipping name	not regulated
14.3 Hazard Class	not regulated
14.4 Packing group	not regulated
14.5 Environmental hazard	No
14.6 Special Provisions	Not relevant

**ADR**

14.1 UN-No	not regulated
14.2 Proper shipping name	not regulated
14.3 Hazard Class	not regulated
14.4 Packing group	not regulated
14.5 Environmental hazard	No
14.6 Special Provisions	Not relevant

**ADN**

14.1 UN-No	not regulated
14.2 Proper shipping name	not regulated
14.3 Hazard Class	not regulated
14.4 Packing group	not regulated
14.5 Environmental hazard	No
14.6 Special Provisions	Not relevant

**ICAO/IATA**

14.1 UN-No	not regulated
14.2 Proper shipping name	Not regulated
14.3 Hazard Class	not regulated
14.4 Packing group	not regulated
14.5 Environmental hazard	No
14.6 Special Provisions	Not relevant

## Section 15: REGULATORY INFORMATION

### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

**Germany**

Water hazard class (WGK)

WGK 1

**European Union**

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work

**International Inventories**

<b>TSCA</b>	Complies
<b>DSL/NDL</b>	Complies
<b>EINECS/ELINCS</b>	Complies
<b>ENCS</b>	Complies
<b>IECSC</b>	Complies
<b>KECL</b>	Complies
<b>PICCS</b>	Complies
<b>AICS</b>	Complies

**Legend:**

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory

**DSL/NDL** - Canadian Domestic Substances List/Non-Domestic Substances List

**EINECS/ELINCS** - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

**ENCS** - Japan Existing and New Chemical Substances

**IECSC** - China Inventory of Existing Chemical Substances

**KECL** - Korean Existing and Evaluated Chemical Substances

**PICCS** - Philippines Inventory of Chemicals and Chemical Substances

**AICS** - Australian Inventory of Chemical Substances

**15.2. Chemical safety assessment**

No data is available on the product itself

**Section 16: OTHER INFORMATION****Key or legend to abbreviations and acronyms used in the safety data sheet****Legend**

SVHC: Substances of Very High

Concern for Authorization:

**- Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value	*	Skin designation

**Preparation Date** 20-11-2014

**Revision Date** 10-11-2015

**Reason for revision** not applicable.

**Training Advice** Provide adequate information, instruction and training for operators

**This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006**

**Disclaimer:**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet