

Material Safety Data Sheet



MANDATE PLUS

1. Product and company identification

Trade name of product : MANDATE PLUS

Product use : Sanitizer.

Product dilution information : Up to 1 oz/3 gal in water

Supplier's information : Ecolab Inc. Food & Beverage Division
370 N. Wabasha Street
St. Paul, MN 55102
1-800-392-3392

Code : 902730-03

Date of issue : 29-November-2012

EPA Registration No. : 1677-194

EMERGENCY HEALTH INFORMATION: 1-800-328-0026

Outside United States and Canada CALL 1-651-222-5352 (in USA)

2. Hazards identification

Product AS SOLD

Physical state : Liquid.
Emergency overview : DANGER !

CAUSES RESPIRATORY TRACT, DIGESTIVE TRACT, EYE AND SKIN BURNS.
MAY BE FATAL IF ABSORBED THROUGH SKIN.
HARMFUL IF INHALED OR SWALLOWED.

Do not ingest. Do not get in eyes, on skin or on clothing. Do not breathe vapor or spray. Keep container closed. Use only with adequate ventilation. Wash thoroughly after handling.

Potential acute health effects

Product AS SOLD

Eyes : Corrosive to eyes.
Skin : Corrosive to the skin. MAY BE FATAL IF ABSORBED THROUGH SKIN.
Inhalation : HARMFUL IF INHALED. Corrosive to the respiratory system.
Ingestion : Harmful if swallowed. Causes burns to mouth, throat and stomach.

See toxicological information (Section 11)

Product AT USE DILUTION

Liquid.
CAUTION !
MAY CAUSE EYE IRRITATION.

Avoid contact with eyes. Wash thoroughly after handling.

Product AT USE DILUTION

Moderately irritating to eyes.
No known significant effects or critical hazards.
No known significant effects or critical hazards.
No known significant effects or critical hazards.

3. Composition/information on ingredients

Product AS SOLD

Name	CAS number	% by weight
ACETIC ACID	64-19-7	15
nitric acid	7697-37-2	14
PHOSPHORIC ACID	7664-38-2	8
1-octanesulfonic acid, sodium salt	5324-84-5	5 - 20
PELARGONIC ACID	112-05-0	6.30
CAPRIC ACID	334-48-5	1.09

3. Composition/information on ingredients

Product AT USE DILUTION

Name	CAS number	% by weight
nitric acid	7697-37-2	<1

4. First aid measures

	Product AS SOLD	Product AT USE DILUTION
Eye contact	: In case of contact, immediately flush eyes with cool running water. Remove contact lenses and continue flushing with plenty of water for at least 15 minutes. Get medical attention immediately.	In case of contact, immediately flush eyes with plenty of water. Remove contact lenses and flush again. Get medical attention if irritation persists.
Skin contact	: In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention immediately. Wash clothing before reuse. Clean shoes thoroughly before reuse.	No known effect after skin contact. Rinse with water for a few minutes.
Inhalation	: If inhaled, remove to fresh air. If exposed person is not breathing, give artificial respiration or oxygen applied by trained personnel. Get medical attention immediately.	No special measures required. Treat symptomatically.
Ingestion	: If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention immediately.	Get medical attention if symptoms occur.

5. Fire-fighting measures

Product AS SOLD

Hazardous thermal decomposition products	: Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides sulfur oxides phosphorus oxides metal oxide/oxides
Fire-fighting media and instructions	: Use an extinguishing agent suitable for the surrounding fire. Dike area of fire to prevent runoff. In a fire or if heated, a pressure increase will occur and the container may burst.
Special protective equipment for fire-fighters	: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

6. Accidental release measures

	Product AS SOLD	Product AT USE DILUTION
Personal precautions	: Initiate company's spill response procedures immediately. Keep people out of area. Put on appropriate personal protective equipment (see section 8). Do not touch or walk through spilled material.	Use personal protective equipment as required.
Environmental precautions	: Avoid contact of spilled material and runoff with soil and surface waterways.	Avoid contact of large amounts of spilled material and runoff with soil and surface waterways.

6. Accidental release measures

Methods for cleaning up : Follow company's spill procedures. Keep people away from spill. Put on appropriate personal protective equipment (see section 8). Absorb/neutralize liquid material. Use a tool to scoop up solid or absorbed material and put into appropriate labeled container. Use a water rinse for final clean-up.

Use a water rinse for final clean-up.

7. Handling and storage

Handling : **Product AS SOLD**
 : Do not ingest. Do not get in eyes, on skin, or on clothing. Do not breathe vapor or spray. Keep container closed. Use only with adequate ventilation. Wash thoroughly after handling. Do not mix with bleach or other chlorinated products - will cause chlorine gas.

Storage : Keep out of reach of children. Keep container tightly closed.
 Do not store below the following temperature: -10°C

Product AT USE DILUTION
 Avoid contact with eyes. Wash thoroughly after handling.

Keep out of reach of children. Store in a closed container.

8. Exposure controls/personal protection

Engineering measures : **Product AS SOLD**
 : Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. Provide suitable facilities for quick drenching or flushing of the eyes and body in case of contact or splash hazard.

Product AT USE DILUTION
 Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

Personal protection

Eyes : Use chemical splash goggles. For continued or severe exposure wear a face shield over the goggles.

Hands : Use chemical-resistant, impervious gloves.

Skin : Wear suitable protective clothing.

Respiratory : Wear appropriate respirator when ventilation is inadequate and occupational exposure limits are exceeded.

No protective equipment is needed under normal use conditions.

No protective equipment is needed under normal use conditions.

No protective equipment is needed under normal use conditions.

No special protection is required.

Ingredient	Exposure limits
ACETIC ACID	ACGIH TLV (United States, 2/2010). STEL: 37 mg/m ³ 15 minute(s). STEL: 15 ppm 15 minute(s). TWA: 25 mg/m ³ 8 hour(s). TWA: 10 ppm 8 hour(s). OSHA PEL (United States, 6/2010). TWA: 25 mg/m ³ 8 hour(s). TWA: 10 ppm 8 hour(s).
nitric acid	ACGIH TLV (United States, 2/2010). STEL: 10 mg/m ³ 15 minute(s). STEL: 4 ppm 15 minute(s). TWA: 5.2 mg/m ³ 8 hour(s). TWA: 2 ppm 8 hour(s). OSHA PEL (United States, 6/2010). TWA: 5 mg/m ³ 8 hour(s).

8. Exposure controls/personal protection

PHOSPHORIC ACID

TWA: 2 ppm 8 hour(s).
NIOSH REL (United States, 6/2009).
 TWA: 2 ppm 10 hour(s).
 TWA: 5 mg/m³ 10 hour(s).
 STEL: 4 ppm 15 minute(s).
 STEL: 10 mg/m³ 15 minute(s).

ACGIH TLV (United States, 2/2010).
 STEL: 3 mg/m³ 15 minute(s).
 TWA: 1 mg/m³ 8 hour(s).
OSHA PEL (United States, 6/2010).
 TWA: 1 mg/m³ 8 hour(s).
NIOSH REL (United States, 6/2009).
 TWA: 1 mg/m³ 10 hour(s).
 STEL: 3 mg/m³ 15 minute(s).

9. Physical and chemical properties

Product AS SOLD

Physical state : Liquid.
 Flash point : > 100°C
 Color : Colorless to light yellow [Light]
 Odor : Pungent
 pH : 1 [Conc. (% w/w): 100%]
 Relative density : 1.17

Product AT USE DILUTION

Liquid.
 > 100°C
 Colorless [Light]
 Faint odor
 1 to 3

10. Stability and reactivity

Product AS SOLD

- Stability** : The product is stable. Under normal conditions of storage and use, hazardous polymerization will not occur.
- Reactivity** : Highly reactive or incompatible with the following materials: alkalis.
 Reactive or incompatible with the following materials: metals.
 Slightly reactive or incompatible with the following materials: moisture.
 Do not mix with bleach or other chlorinated products - will cause chlorine gas.
- Hazardous decomposition products** : Under normal conditions of storage and use, hazardous decomposition products should not be produced.
- Hazardous polymerization** : Under normal conditions of storage and use, hazardous polymerization will not occur.

11. Toxicological information

Potential acute health effects

Product AS SOLD

Eyes : Corrosive to eyes.

Skin : Corrosive to the skin. MAY BE FATAL IF ABSORBED THROUGH SKIN.

Inhalation : HARMFUL IF INHALED. Corrosive to the respiratory system.

Ingestion : Harmful if swallowed. Causes burns to mouth, throat and stomach.

Product AT USE DILUTION

Moderately irritating to eyes.
 No known significant effects or critical hazards.
 No known significant effects or critical hazards.
 No known significant effects or critical hazards.

Product AS SOLD

Other adverse effects

Target organs : Contains material which may cause damage to the following organs: blood, lungs, upper respiratory tract, teeth, testes.

12. Ecological information

Ecotoxicity : Not reported

13. Disposal considerations**Product AS SOLD**

Waste disposal : Avoid disposal. Attempt to use product completely in accordance with intended use. Disposal should be in accordance with applicable regional, national and local laws and regulations.

RCRA classification : Unused product is D002 (Corrosive)

Product AT USE DILUTION

Diluted product can be flushed to sanitary sewer. Discard empty container in trash.

14. Transport information

Certain shipping modes or package sizes may have exceptions from the transport regulations. The classification provided may not reflect those exceptions and may not apply to all shipping modes or package sizes.

Product AS SOLD**DOT**

DOT Classification UN1760
DOT Proper shipping name Corrosive liquids, n.o.s. (acetic acid, nitric acid)
Class 8
Packing group II

IMO/IMDG

IMO/IMDG Classification UN1760
IMO/IMDG Proper shipping name CORROSIVE LIQUID, N.O.S. (nitric acid, acetic acid)
Class 8
Packing group II

For transport in bulk, see shipping documents for specific transportation information.

Product AT USE DILUTION

Not intended for transport.

15. Regulatory information**Product AS SOLD**

HCS Classification : Corrosive material
 Target organ effects

Product AS SOLD**U.S. Federal regulations**

TSCA 8(b) inventory : All components are listed or exempted.

EPA Registration No. : 1677-194

SARA 302/304/311/312 extremely hazardous substances: nitric acid

SARA 302/304 emergency planning and notification: nitric acid

SARA 313**Product name**

Form R - Reporting requirements : nitric acid

CAS number

7697-37-2

Concentration

14.07

California Prop. 65

: No listed substance

Product AT USE DILUTION

Irritating material

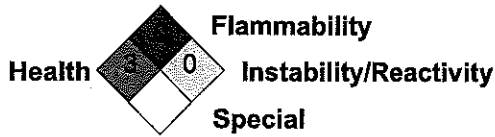
16. Other information

Product AS SOLD

Hazardous Material Information System (U.S.A.) :

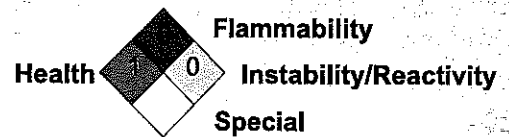
Health	*	3
Flammability		0
Physical hazards		0

National Fire Protection Association (U.S.A.) :



Product AT USE DILUTION

Health		1
Flammability		0
Physical hazards		0



Date of issue : 29-November-2012
Responsible name : Regulatory Affairs
1-800-352-5326

▣ Indicates information that has changed from previously issued version.

Notice to reader

The above information is believed to be correct with respect to the formula used to manufacture the product in the country of origin. As data, standards, and regulations change, and conditions of use and handling are beyond our control, NO WARRANTY, EXPRESS OR IMPLIED, IS MADE AS TO THE COMPLETENESS OR CONTINUING ACCURACY OF THIS INFORMATION.