

Material Safety Data Sheet



MANDATE PLUS

Section 1. Chemical product and company identification

Trade name : MANDATE PLUS
Product use : Sanitizer.
Supplier : Ecolab Inc. Food & Beverage Division
370 N. Wabasha Street
St. Paul, MN 55102
1-800-392-3392
Code : 902730-03
Date of issue : 28-June-2007
EPA Registration No. : 1677-194

EMERGENCY HEALTH INFORMATION: 1-800-328-0026
Outside United States and Canada CALL 1-651-222-5352 (in USA)

Section 2. Composition, information on ingredients

<u>Name</u>	<u>CAS number</u>	<u>% by weight</u>
acetic acid	64-19-7	15
nitric acid	7697-37-2	14
phosphoric acid	7664-38-2	7
1-octanesulfonic acid, sodium salt	5324-84-5	5 - 20
Nonanoic acid	112-05-0	5 - 20
capric acid	334-48-5	1 - 5

Section 3. Hazards identification

Physical state : Liquid.
Emergency overview : DANGER!

CAUSES RESPIRATORY TRACT, EYE AND SKIN BURNS.
HARMFUL IF SWALLOWED.
MAY BE FATAL IF INHALED, ABSORBED THROUGH SKIN OR SWALLOWED.
Do not ingest. Do not get in eyes, on skin or on clothing. Do not breathe vapor or mist.
Keep container closed. Use only with adequate ventilation. Wash thoroughly after handling.

Potential acute health effects

Eyes : Corrosive to eyes.
Skin : Corrosive to the skin.
Inhalation : Corrosive to the respiratory system.
Ingestion : Harmful if swallowed. Causes burns to mouth, throat and stomach.

See toxicological information (section 11)

Section 4. First aid measures

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.

Skin contact : In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention immediately.

Inhalation : If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.

Ingestion : Rinse mouth; then drink one or two large glasses of water. Do not induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention immediately.

Section 5. Fire fighting measures

Flash point : > 100°C
Fire-fighting media and instructions : Use an extinguishing agent suitable for the surrounding fire.

Dike liquid for later disposal.
 No specific hazard.

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.

Section 6. Accidental release measures

Personal precautions : Ventilate area of leak or spill. Do not touch damaged containers or spilled material unless wearing appropriate protective equipment (Section 8). Stop leak if without risk. Do not allow to enter drains or watercourses.

Environmental precautions : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods for cleaning up : If emergency personnel are unavailable, contain spilled material. For small spills, add absorbent (soil may be used in the absence of other suitable materials), scoop up material and place in a sealable, liquid-proof container for disposal. For large spills, dike spilled material or otherwise contain it to ensure runoff does not reach a waterway. Place spilled material in an appropriate container for disposal.--

Section 7. Handling and storage

Handling : Do not ingest. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. 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 the reach of children. Keep container tightly closed. Keep container in a cool, well-ventilated area.
 Do not store below the following temperature: -10°C

Section 8. Exposure controls, personal protection

Engineering measures : 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 eyewash and safety shower in area if contact or splash hazard exists.

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.

Name

acetic acid

Exposure limits

ACGIH TLV (United States, 1/2006).

STEL: 37 mg/m³ 15 minute(s).

STEL: 15 ppm 15 minute(s).

TWA: 25 mg/m³ 8 hour(s).

TWA: 10 ppm 8 hour(s).

OSHA PEL (United States, 11/2006).

TWA: 25 mg/m³ 8 hour(s).

TWA: 10 ppm 8 hour(s).

nitric acid

ACGIH TLV (United States, 1/2006).

STEL: 10 mg/m³ 15 minute(s).

STEL: 4 ppm 15 minute(s).

TWA: 5.2 mg/m³ 8 hour(s).

phosphoric acid

TWA: 2 ppm 8 hour(s).
OSHA PEL (United States, 11/2006).
 TWA: 5 mg/m³ 8 hour(s).
 TWA: 2 ppm 8 hour(s).
ACGIH TLV (United States, 1/2006).
 STEL: 3 mg/m³ 15 minute(s).
 TWA: 1 mg/m³ 8 hour(s).
OSHA PEL (United States, 11/2006).
 TWA: 1 mg/m³ 8 hour(s).

Section 9. Physical and chemical properties

Physical state : Liquid.
Color : Colorless to light yellow. [Light]
Odor : Pungent.
pH : 1 [Conc. (% w/w): 100%]
Specific gravity : 1.17

Section 10. Stability and reactivity

Stability : The product is stable.
Reactivity : Highly reactive with alkalis. Reactive with metals.
 Do not mix with bleach or other chlorinated products – will cause chlorine gas.
Hazardous polymerization : Will not occur.

Section 11. Toxicological information

Potential acute health effects

Eyes : Corrosive to eyes.
Skin : Corrosive to the skin.
Inhalation : Corrosive to the respiratory system.
Ingestion : Harmful if swallowed. Causes burns to mouth, throat and stomach.

Potential chronic health effects

Chronic effects on humans : Contains material which causes damage to the following organs: lungs, mucous membranes, upper respiratory tract, teeth.

Section 12. Ecological information

Section 13. Disposal considerations

Waste disposal : The generation of waste should be avoided or minimized wherever possible. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.

Waste classification : Unused product is D002 (Corrosive)

Consult your local or regional authorities.

Section 14. Transport information

Regulatory information	UN number	Proper shipping name	Class	Packing group	Additional information
DOT Classification	UN1760	Corrosive liquids, n.o.s. (acetic acid, nitric acid)	8	II	Not available.

APPLIES ONLY DURING ROAD TRANSPORT

Any variation of the shipping description based on the packaging is not addressed.

Section 15. Regulatory information

HCS Classification : Corrosive material
Target organ effects

U.S. Federal regulations : SARA 302/304/311/312 extremely hazardous substances: nitric acid
SARA 302/304 emergency planning and notification: nitric acid

TSCA 8(b) inventory : All materials are listed or exempt.

SARA 313

	<u>Product name</u>	<u>Concentration</u>
Form R - Reporting requirements	: nitric acid	14.1

California Prop. 65 : No products were found.

EPA Registration No. : 1677-194

Section 16. Other information

Hazardous Material Information System (U.S.A.) :	Health	*	3
	Flammability		0
	Physical hazards		0

Date of issue : 28-June-2007.

Responsible name : Regulatory Affairs

Date of previous issue : 28-June-2007.

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.