Material Safety Data Sheet

LIQUID EXEC 120 SOUR

Section 1. Chemical product and company identification

Trade name : LIQUID EXEC 120 SOUR
Product use : Laundry product
Supplier : Ecolab Inc.Textile Care Division
370 N. Wabasha Street
St. Paul, MN 55102
1-800-553-8683
Code : 972257-02
Date of issue : **11-June-2007**

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

Name	CAS number	% by weight
formic acid	64-18-6	25

Section 3. Hazards identification

Physical state : Liquid. [Liquid.]
Emergency overview : DANGER!

CAUSES EYE AND SKIN BURNS.
CAUSES SEVERE RESPIRATORY TRACT IRRITATION.
HARMFUL IF SWALLOWED.

Do not ingest. Do not get in eyes, on skin or on clothing. Avoid breathing vapors, spray or mists. 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 : Severely irritating 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
Product does not support combustion.

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 material 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. Avoid breathing vapors, spray or mists. 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 above the following temperature: 50°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.

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 : Use synthetic apron, other protective equipment as necessary to prevent skin contact.

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

Name	Exposure limits
formic acid	**ACGIH TLV (United States, 1/2006).** STEL: 19 mg/m³ 15 minute(s). STEL: 10 ppm 15 minute(s). TWA: 9.4 mg/m³ 8 hour(s). TWA: 5 ppm 8 hour(s). **OSHA PEL (United States, 11/2006).** TWA: 9 mg/m³ 8 hour(s). TWA: 5 ppm 8 hour(s).

Section 9. Physical and chemical properties

Physical state : Liquid. [Liquid.]
Color : Colorless.
Odor : Pungent.
pH : 1 to 2 [Conc. (% w/w): 100%]
Boiling/condensation point : >100°C (>212°F)
Specific gravity : 1.05 to 1.08
Dispersibility properties : Easily dispersed in hot water.
Easily dispersed in cold water.
Solubility : Easily soluble in hot water.
Soluble in cold water.

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.

Section 11. Toxicological information

Potential acute health effects

Eyes : Corrosive to eyes.
Skin : Corrosive to the skin.
Inhalation : Severely irritating 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: kidneys, lungs, liver, upper respiratory tract.

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	UN3412	Formic acid solution	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

U.S. Federal regulations : SARA 302/304/311/312 extremely hazardous substances: No products were found.

SARA 302/304 emergency planning and notification: No products were found.

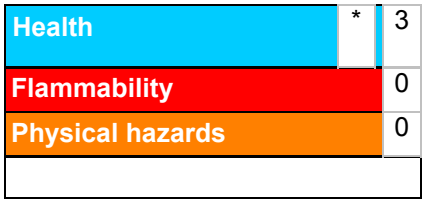
TSCA 8(b) inventory : All materials are listed or exempt.

SARA 313	**Product name**	**Concentration**
Form R - Reporting requirements :	formic acid	25

California Prop. 65 : No products were found.

Section 16. Other information

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



Date of issue : **11-June-2007.**

Responsible name : **Regulatory Affairs**

Date of previous issue : **28-April-2005.**

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.