

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 : Textile Care - Division of Ecolab Co.
5105 Tomken Road
Mississauga ON L4W 2X5
1-800-352-5326
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

<u>Name</u>	<u>CAS number % by weight</u>	
formic acid	64-18-6	15 - 40

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 vapours, spray or mists. Keep container closed. Use only with adequate ventilation. Wash thoroughly after handling.
Routes of entry : Skin contact, Eye contact, Inhalation, Ingestion
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

- Auto-ignition temperature** : Not available.
Flash point : > 100°C
 Product does not support combustion.
- Flammable limits**
- Upper:** Not available.
Lower: Not available.
- Products of combustion** : Not available.
Fire-fighting media and instructions : Use an extinguishing agent suitable for the surrounding fire.
 Dyke 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.
- Risk of explosion of the product in the presence of mechanical impact: Not available.
 Risk of explosion of the product in the presence of static discharge: Not available.

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 spilt 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 spilt 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, dyke spilt material or otherwise contain material to ensure runoff does not reach a waterway. Place spilt 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 vapours, 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, vapour 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).

Section 9. Physical and chemical properties

Physical state	: Liquid. [Liquid.]
Colour	: Colourless.
Odour	: Pungent.
pH	: 1 to 2 [Conc. (% w/w): 100%]
Boiling/condensation point	: >100°C (>212°F)
Melting/freezing point	: Not available.
Specific gravity	: 1.05 to 1.08
Vapour pressure	: Not available.
Vapour density	: Not available.
Odour threshold	: Not available.
Evaporation rate	: Not available.
LogK_{ow}	: Not available.
Dispersibility properties	: Easily dispersed in hot water. Dispersed in cold water.
Solubility	: Easily soluble in hot water. Soluble in cold water.

Section 10. Stability and reactivity

Stability	: The product is stable.
Conditions of instability	: Not available.
Reactivity	: Highly reactive with alkalis. Reactive with metals. Do not mix with bleach or other chlorinated products – will cause chlorine gas.
Hazardous Decomposition Products	: Not available.

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.
Irritancy of Product	: Hazardous by WHMIS criteria.

Potential chronic health effects

Carcinogenic effects	: No known significant effects or critical hazards.
Mutagenic effects	: No known significant effects or critical hazards.
Teratogenic effects	: No known significant effects or critical hazards.
Reproductive effects	: No known significant effects or critical hazards.
Sensitization to Product	: No known significant effects or critical hazards.
Synergistic products (toxicologically)	: Not available.

Toxicity data

<u>Ingredient name</u>	<u>Test</u>	<u>Route</u>	<u>Result</u>	<u>Species</u>
formic acid	LD50	Oral	700 mg/kg	Mouse
	LD50	Oral	1100 mg/kg	Rat
	LD50	Oral	4 g/kg	Dog
	LDLo	Oral	2440 ug/kg	Woman - Female

Target organs : Contains material which causes damage to the following organs: kidneys, lungs, liver, upper respiratory tract.

Section 12. Ecological information

Ecotoxicity

<u>Ingredient name</u>	<u>Species</u>	<u>Period</u>	<u>Result</u>
formic acid	Daphnia	48 hours	Acute EC50 151.2 mg/L

Section 13. Disposal considerations

Waste disposal : The generation of waste should be avoided or minimised wherever possible. Avoid dispersal of spilt 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.

Consult your local or regional authorities.

Section 14. Transport information

Regulatory information	UN number	Proper shipping name	Class	Packing group	Additional information
TDG Classification	UN3412	FORMIC ACID	8	II	<u>Passenger Carrying Road or Rail Index</u> 1

APPLIES ONLY DURING ROAD TRANSPORT

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

Section 15. Regulatory information

WHMIS : Class E: Corrosive material

This product has been classified in accordance with the hazard criteria of the *Controlled Products Regulations* and the MSDS contains all the information required by the *Controlled Products Regulations*.

Section 16. Other information

Date of issue : 11-June-2007.
Responsible name : Regulatory Affairs
Date of previous issue : 10-December-2004.

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.