SAFETY DATA SHEET

Issue Date 17-Dec-2015 **Revision Date:** 29-Apr-2016

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION

Product identifier

Product Name YUMATE™ SC-870C

Other means of identification

Product Code YUMATE SC-870C
Synonyms None

Recommended use of the chemical and restrictions on use

Recommended Use Water soluble metalworking fluid.
Uses advised against No information available

Details of the supplier of the safety data sheet

Manufacturer Address
Yushiro Manufacturing America, Inc.
783 West Mausoleum Road
Shelbyville, IN 46176
Telephone: 317-398-9862

Emergency telephone number

Emergency Telephone Chemtrec 1-800-424-9300

2. HAZARDS IDENTIFICATION

Classification

OSHA Regulatory Status
This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Serious eye damage/eye irritation	Category 1
Skin sensitization	Category 1B
Reproductive toxicity	Category 2
Specific target organ toxicity (repeated exposure)	Category 2

Label elements

Emergency Overview

Danger

Hazard statements
Causes serious eye damage
May cause an allergic skin reaction
Suspected of damaging fertility or the unborn child
May cause damage to organs through prolonged or repeated exposure
Harmful to aquatic life with long lasting effects

Appearance No information available	**Physical state** liquid	**Odor** Amines

Precautionary Statements - Prevention
Obtain special instructions before use
Do not handle until all safety precautions have been read and understood
Use personal protective equipment as required
Contaminated work clothing should not be allowed out of the workplace
Wear protective gloves
Do not breathe dust/fume/gas/mist/vapors/spray
Avoid release to the environment

Precautionary Statements - Response
IF exposed or concerned: Get medical advice/attention
Specific treatment (see .? on this label)
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
Immediately call a POISON CENTER or doctor/physician
IF ON SKIN: Wash with plenty of soap and water
If skin irritation or rash occurs: Get medical advice/attention
Wash contaminated clothing before reuse

Precautionary Statements - Storage
Store locked up

Precautionary Statements - Disposal
Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)
Other Information
• May be harmful if swallowed
Unknown acute toxicity 1.9 % of the mixture consists of ingredient(s) of unknown toxicity

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No	weight-%	Trade Secret
Triethanolamine	102-71-6	10 - 30	*
Monoethanolamine	141-43-5	1 - 5	*
Boric acid	10043-35-3	1 - 5	*

Some specific chemical identities and the exact percentages of composition have been withheld as trade secrets.

4. FIRST AID MEASURES

First aid measures

Eye contact Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.

Skin Contact Wash off immediately with soap and plenty of water. Wash contaminated clothing before reuse. If symptoms persist, call a physician.

Inhalation Remove to fresh air.

Ingestion Clean mouth with water and drink afterwards plenty of water.

Most important symptoms and effects, both acute and delayed

Symptoms No information available.

Indication of any immediate medical attention and special treatment needed

Note to physicians Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media
Dry chemical, foam, carbon dioxide, water spray or fog is recommended.

Unsuitable extinguishing media CAUTION: Use of water spray when fighting fire may be inefficient.

Specific hazards arising from the chemical
No information available.

Hazardous combustion products Incomplete combustion and thermolysis may produce gases of varying toxicity such as carbon monoxide, carbon dioxide, various hydrocarbons, aldehydes and soot. These may be highly dangerous if inhaled in confined spaces or at high concentration.

Explosion data
Sensitivity to Mechanical Impact None.
Sensitivity to Static Discharge None.

Protective equipment and precautions for firefighters
As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions Avoid contact with eyes and skin. Use personal protective equipment as required. Ensure adequate ventilation, especially in confined areas.

Environmental precautions

Environmental precautions Avoid release to the environment. Do not flush into surface water or sanitary sewer system. See Section 12 for additional Ecological Information. Dispose of contents/container to an approved waste disposal plant.

Methods and material for containment and cleaning up

Methods for containment Prevent further leakage or spillage if safe to do so.

Methods for cleaning up Soak up with inert absorbent material.

7. HANDLING AND STORAGE

Precautions for safe handling
Advice on safe handling Use personal protective equipment as required. Avoid contact with skin, eyes or clothing. Ensure adequate ventilation, especially in confined areas.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep from freezing. Protect from extremes of temperature and direct sunlight. Keep container tightly closed in a dry and well-ventilated place.

Incompatible materials Acids. Strong oxidizing agents. Nitrites and nitrosating agents.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines .

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Triethanolamine	TWA: 5 mg/m^3	-	-
Monoethanolamine	STEL: 6 ppm TWA: 3 ppm	TWA: 3 ppm TWA: 6 mg/m^3 (vacated) TWA: 3 ppm (vacated) TWA: 8 mg/m^3 (vacated) STEL: 6 ppm (vacated) STEL: 15 mg/m^3	IDLH: 30 ppm TWA: 3 ppm TWA: 8 mg/m^3 STEL: 6 ppm STEL: 15 mg/m^3
Boric acid	STEL: 6 mg/m^3 inhalable fraction TWA: 2 mg/m^3 inhalable fraction	-	-

Appropriate engineering controls

Engineering Controls Showers
Eyewash stations
Ventilation systems.

Individual protection measures, such as personal protective equipment

Eye/face protection Wear safety glasses with side shields (or goggles). Avoid contact with eyes.

Skin and body protection Wear protective gloves and protective clothing. Avoid contact with skin and clothing. Selection of protective clothing depends on work conditions.

Respiratory protection If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

General Hygiene Considerations Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state liquid
Appearance No information available
Color light yellow
Odor Amines
Odor threshold No information available

Property	Values	Remarks • Method
pH	8.85	
Melting point / freezing point	No information available	
Boiling point / boiling range	No information available	
Flash point	No information available	
Evaporation rate	No information available	
Flammability (solid, gas)	No information available	
Flammability Limit in Air		
Upper flammability limit:	No information available	
Lower flammability limit	No information available	
Vapor pressure	No information available	
Vapor density	No information available	
Specific Gravity	1.059	@ 20°C
Water solubility	Miscible in water	

Solubility in other solvents	No information available
Partition coefficient	No information available
Autoignition temperature	No information available
Decomposition temperature	No information available
Kinematic viscosity	No information available
Dynamic viscosity	No information available
Explosive properties	No information available
Oxidizing properties	No information available

Other Information

Softening point	No information available
Molecular weight	No information available
VOC Content (%)	No information available
Density	8.8 lbs/gal
Bulk density	No information available

10. STABILITY AND REACTIVITY

Reactivity
No data available

Chemical stability
Stable under recommended storage conditions.
Possibility of Hazardous Reactions
None under normal processing.
Hazardous polymerization Hazardous polymerization does not occur.

Conditions to avoid
Extremes of temperature and direct sunlight.
Incompatible materials
Acids. Strong oxidizing agents. Nitrites and nitrosating agents.
Hazardous Decomposition Products
No hazardous decomposition products if stored and handled under normal conditions.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information No data available

Inhalation Inhalation of vapors at high concentration may cause mild irritation of respiratory system.

Eye contact Contact with eyes may cause serious eye damage.

Skin Contact Repeated or prolonged skin contact may result in dermatitis. May cause sensitization by skin contact.

Ingestion May be harmful if swallowed.

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Triethanolamine	= 4190 mg/kg (Rat)	> 20 mL/kg (Rabbit) > 16 mL/kg (Rat)	-
Monoethanolamine	= 1720 mg/kg (Rat)	= 1 mL/kg (Rabbit) = 1000 mg/kg (Rabbit)	-
Boric acid	= 2660 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	> 0.16 mg/L (Rat) 4 h

Information on toxicological effects

Symptoms No information available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation Repeated exposure may cause skin dryness or cracking.
Serious eye damage/eye irritation Risk of serious damage to eyes.
Sensitization May cause sensitization by skin contact.
Germ cell mutagenicity No information available.
Carcinogenicity This product does not contain any components at concentrations at or above 0.1% that are listed as carcinogens or potential carcinogens by OSHA, IARC or NTP.
Reproductive toxicity Product contains boric acid. Animal ingestion studies in several species indicate that, at high doses, boric acid may cause reproductive and developmental effects. Human epidemiological studies have not shown a negative effect on human fertility.
STOT - single exposure No information available.
STOT - repeated exposure May cause damage to kidneys and liver through prolonged or repeated exposure.
Aspiration hazard No information available.

Numerical measures of toxicity - Product Information

Unknown acute toxicity 1.9 % of the mixture consists of ingredient(s) of unknown toxicity
The following values are calculated based on chapter 3.1 of the GHS document.
ATEmix (oral) >3,000 mg/kg

12. ECOLOGICAL INFORMATION

Ecotoxicity
Harmful to aquatic life

Persistence and degradability
No information available.

Bioaccumulation
No information available.

Other adverse effects
No information available

13. DISPOSAL CONSIDERATIONS

Waste treatment methods
Disposal of wastes Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated packaging Do not reuse container.

Chemical Name	California Hazardous Waste Status
Boric acid 10043-35-3	Toxic

14. TRANSPORT INFORMATION

DOT Not regulated

15. REGULATORY INFORMATION

International Inventories

TSCA	Complies
DSL/NDSL	Complies

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

SARA 311/312 Hazard Categories

Acute health hazard	Yes
Chronic Health Hazard	Yes
Fire hazard	No
Sudden release of pressure hazard	No
Reactive Hazard	No

CWA (Clean Water Act)

This product contains substances classified as oil under Section 311 of the Clean Water Act and the Oil Pollution Act of 1990. Discharge or spills which produce a visible sheen on surface water or waterways leading to surface water must be reported to the National Response Center at 800-424-8802.

CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

US State Regulations

California Proposition 65

This product contains the following Proposition 65 chemicals (Trace impurities, <<0.1%)

Chemical Name	California Proposition 65
Diethanolamine - 111-42-2	Carcinogen
N, N-Diethanolamine - 111-42-2	Carcinogen
1,2-dichloroethane - 107-06-2	Carcinogen
1,4-dioxane - 123-91-1	Carcinogen
Ethylenimine - 151-56-4	Carcinogen
Ethylene oxide - 75-21-8	Carcinogen Developmental Female Reproductive Male Reproductive
Propylene oxide - 75-56-9	Carcinogen

U.S. EPA Label information

EPA Pesticide registration number Not Applicable

16. OTHER INFORMATION

Issue Date	17-Dec-2015
Revision Date:	29-Apr-2016

Revision Note

No information available

Disclaimer

The information provided in this Material 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