

SAFETY DATA SHEET

Section 1: IDENTIFICATION

Product Name: Chroma NS 41
MSDS Date: 06 May 2015

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Section 2: HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW:

GHS Classification:

Flammable liquids (Category 3)
Skin irritation (Category 2)
Eye irritation (Category 2A)
Acute toxicity, Oral (Category 4)
Acute toxicity, Inhalation (Category 4)
Acute toxicity, Dermal (Category 4)

GHS Labeling



Symbol:

Signal Word: Warning

Hazard Statements:

Flammable liquid and vapor
Causes skin irritation.
Causes serious eye irritation
Harmful if swallowed.
Harmful if inhaled.
Harmful in contact with skin.

Precautionary Statements:

Prevention:

Avoid breathing mist/vapors/spray.
Do not eat, drink or smoke when using this product.
Ground/bond container and receiving equipment.
Keep away from heat/sparks/open flames/hot surfaces-no smoking.
Keep container tightly closed.
Take precautionary measure against static discharge.
Use only non-sparking tools.

Use only outdoors or in a well-ventilated area.
Wash thoroughly after handling.
Wear protective gloves/eye protection/face protection/protective clothing.

Response:

Call a poison center/doctor if you feel unwell.
If eye irritation persists: Get medical advice/attention.
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If inhaled: Remove person to fresh air and keep comfortable for breathing.
If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water shower.
If skin irritation occurs: Get medical advice/attention.
If swallowed: Immediately call a poison center/doctor. Rinse mouth.
In case of fire: Use water spray, dry chemical, carbon dioxide, alcohol foam to extinguish.
Take off contaminated clothing and wash it before reuse.

Storage:

Store in a well-ventilated place. Keep cool.

Disposal:

Dispose of contents/container in accordance with local/regional/national/international regulations.

Potential Health Effects: See Section 11 for more information

This product does not contain carcinogens or potential carcinogens as listed by IARC, NTP, or ACGIH.

This material contains components that are considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Potential Environmental Effects: See Section 12 for more information.

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

No.	Component CAS REG. NO.	Amount %	OSHA		ACGIH	
			TWA	STEL	TWA	STEL
1	Benzyl Alcohol CAS # 100-51-6	1-50	Not Avail	Not Avail	Not Avail	Not Avail
2	Ethylene Glycol Monopropyl Ether CAS#2807-30-9	40-90	Not avail	Not Avail	Not avail	Not avail
3	Potassium Hydroxide CAS#1310-58-3	1-10	Not avail	Not avail	Not avail	Not avail

Section 4: FIRST AID MEASURES

Emergency first aid procedures by route of exposure:

Inhalation: If overcome by exposure, remove victim to fresh air immediately. Give oxygen or artificial respiration as needed. Obtain medical attention.
Ingestion: Do not induce vomiting. Obtain medical attention.
Skin: Remove contaminated clothing as needed. Wash skin thoroughly with mild soap and water. Flush with lukewarm water for 15 minutes. Seek medical attention.
Eyes: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes and get medical attention.

Section 5: FIRE FIGHTING MEASURES

Flash Point (Ethylene Glycol Monopropyl Ether): 49°C (120°F)
LEL (Ethylene Glycol Monopropyl Ether): Not Available
UEL (Ethylene Glycol Monopropyl Ether): Not Available
Auto Ignition Temperature (Ethylene Glycol Monopropyl Ether): 235°C (ASTM D2155)

Suitable Extinguishing Media:

Water spray, dry chemical, carbon dioxide, alcohol foam

Products of Combustion:

Carbon dioxide, carbon monoxide

Fire Fighting Equipment/Instructions:

Wear self contained breathing apparatus and protective clothing. Use water spray to keep fire-exposed containers cool.

Special Information:

Combustible. Form peroxides of unknown stability.

HAZARD	HMIS	NFPA
Toxicity	2	2
Fire	2	2
Reactivity	0	0

Section 6: ACCIDENTAL RELEASE MEASURES

Personal Protection: Use personal protective equipment. Ensure adequate ventilation. Eliminate all sources of ignition.

Environmental Precautions: Prevent product from entering drains. Prevent further leakage or spillage if safe to do so. If the product contaminates rivers and lakes or drains inform respective authorities.

Method for Containment: Absorb spilled liquid in suitable non-flammable inert material such as clay, vermiculite or diatomaceous earth.

Methods for Clean-up: Use clean non-sparking tools to collect absorbed material. Dike large spills and place materials in salvage containers.

Section 7: HANDLING AND STORAGE

Handling: Avoid breathing mist or vapor. Avoid contact with eyes, skin, and clothing. Do not taste or swallow. Use only with adequate ventilation. Wash thoroughly after handling. Keep away from heat and flame. Keep from contact with oxidizing materials. Minimize exposure to air. Do not distill to near dryness. If peroxide formation is suspected, do not open or move container. Addition of water or appropriate reducing materials will lessen peroxide formation.

Storage: keep containers closed. Store away from heat and light.

Section 8: EXPOSURE CONTROLS/ PERSONAL PROTECTION

Engineering Controls: Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value.

Personal Protective Equipment (PPE)

Respiratory Protection: A respiratory protection program that meets OSHA's 29CFR 1910.134 or ANSI Z88.2 requirements must be followed whenever workplace conditions warrant respirator use.

Eye/Face Protection: Eye protection such as chemical splash goggles and/or face shield must be worn.

Hand Protection: Wear chemical resistant gloves such as Butyl rubber or Viton.

Body: When skin contact is possible, protective clothing including apron, sleeves, boots, head and face protection should be worn.

Other Protective Equipment:

Facilities storing or utilizing this material should be equipped with eyewash and/or shower facilities.

See section 3 for exposure limits.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance, State: Clear Liquid

Color: Not Available

Odor: Not Available

pH: Not Available

Vapor Density (Ethylene Glycol Monopropyl Ether): 3.6

Boiling Point (Ethylene Glycol Monopropyl Ether): 149.5°C

Vapor Pressure (Ethylene Glycol Monopropyl Ether): 20°C, 1.7mbar

Freezing point (Ethylene Glycol Monopropyl Ether): -90°C

Flash Point (See Section 5)

Flammability Properties (See section 5)

Solubility (in water) Complete

Specific Gravity (Ethylene Glycol Monopropyl Ether): 0.913 (20°C)

Evaporation Rate (Ethylene Glycol Monopropyl Ether): 0.22 (n-butyl acetate)

Octanol/Water partition coefficient (Kow) (Ethylene Glycol Monopropyl Ether): P:1.1; log P:0.05

Auto-ignition temperature (See section 5)

Decomposition temperature (Ethylene Glycol Monopropyl Ether): (DTA) no exotherm to 500°C

Section 10: STABILITY AND REACTIVITY

Stability: This material is considered stable at ambient temperatures 70°C (21°C).

Condition to Avoid: Strong oxidizing agents, heat, flames, sparks, acids, nitrogen containing organics, chlorinated alkenes, carbohydrates, phosphorous, explosives, organic peroxides, per sulfates, aluminum, tin, or zinc.

Hazardous Decomposition: Carbon dioxide and carbon monoxide may form when heated to decomposition.

Hazardous Reactions: This product will not undergo polymerization.

Section 11: TOXICOLOGICAL INFORMATION

ACUTE EFFECTS:

Component Analysis LD50

Ethylene Glycol Monopropyl Ether (CAS#2807-30-9)

Oral LD-50 (rat) 3,089 mg/kg

Oral LD-50 (mouse) 1,774 mg/kg

Inhalation LC-50 (rat) 6 h > 2132 ppm (highest concentration obtainable)

Dermal LD-50 (rabbit) 1,337 mg/kg

Skin Irritation (rabbit) slight

Skin Irritation (guinea pig) slight

Eye irritation (rabbit) strong

Skin Sensitization (guinea pig) none

Benzyl Alcohol (100-51-6)

Acute oral toxicity (LD50): 1040 mg/kg [Rabbit]

Acute dermal toxicity (LD50): 2000 mg/kg [Rabbit]

Potassium Hydroxide (1310-58-3)

Dermal LD50 believed to be > 2 g/kg (Rabbit)

Oral LD50 Believed to be 500-700 mg/kg (Rat)

Irritation Causes burns to eyes and skin

CHRONIC EFFECTS:

Component

Ethylene Glycol Monopropyl Ether (CAS#2807-30-9)

Carcinogenic Effects: Not listed

Mutagenic Effects: Not Available.

Teratogenic Effects: Not Available

Developmental Toxicity: Reproductive toxicity - rat – Inhalation
Maternal Effects: Other effects. Specific Developmental Abnormalities: Musculoskeletal system.
Reproductive toxicity - mouse - Oral
Effects on Newborn: Stillbirth.
Target Organs: May cause blood disorders based on animal data **Skin corrosion/irritation**
Skin - rabbit
Result: Mild skin irritation - 24 h
Serious eye damage/eye irritation
Eyes - rabbit
Result: Severe eye irritation - 24 h

Benzyl Alcohol (100-51-6)

Carcinogenic Effects: Not classified as a carcinogen according to IARC, NTP, and OSHA.
Mutagenic Effects: Mutagenic for bacteria and yeasts
Teratogenic Effects: May cause adverse reproductive effects based on animal data. No human data found at this point.
Developmental Toxicity: Not Available
Target Organs: Prolonged contact may cause defatting of the skin. May be toxic to the liver and central nervous system. Overexposure may cause CNS depression.
Skin corrosion/irritation
Skin – rabbit
Result: Irritating to skin. - 24 h

Potassium hydroxide (1310-58-3)

Carcinogenic Effects: Not known or reported to be carcinogenic by any reference source including IARC, OSHA, NTP, or EPA
Mutagenic Effects: Not known or reported to be mutagenic.
Teratogenic Effects: Not Available
Developmental Toxicity: There are no known or reported effects on reproduction function or fetal development.
Target Organs: lung damage after inhalation, skin and eye burns, irritation and burns can occur to the entire gastrointestinal tract after ingestion, including stomach and intestines. Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin., spasm, inflammation and edema of the larynx, spasm, inflammation and edema of the bronchi, pneumonitis, pulmonary edema, burning sensation, Cough, wheezing, laryngitis, Shortness of breath, Headache, Nausea

Section 12: ECOLOGICAL INFORMATION

Ecotoxicity: Ethylene Glycol Monopropyl Ether (2807-30-9)
96 h LC50 (fathead minnow) >91.3 mg/l NOEC: 91.3 mg/l
96 h LC50 (daphnid) > 91.3 mg/l NOEC: 91.3 mg/l
96 h LC-50 (snail) > 91.3 mg/l NOEC: 91.3 mg/l

Ecotoxicity: Benzyl Alcohol (100-51-6)

Ecotoxicity in water (LC50):

770 mg/l 48 hours [Fish (Pimephales promelas (Fathead minnow))].
480 mg/l 72 hours [Fish (Pimephales promelas (Fathead minnow))].
460 mg/l 96 hours [Fish (Pimephales promelas (Fathead minnow))].
10 ppm 96 hours [Fish (Lepomis macrochirus (Bluegill sunfish))].
15 ppm 96 hours [Fish (Menidia beryllina (tidewater silverside fish))].

Ecotoxicity: Potassium Hydroxide (1310-58-3)

Aquatic Toxicity Rating 2 (TLM96:100-10 ppm)
TLM96 - Gambusia Affinis (Mosquito-fish) 80 ppm
Lethal- Dose (24 hr. exposure):
Trout - 50 ppm
Bluegills - 55 ppm
Lepomis Pall-Idus (minnows) – 28 ppm

Section 13: DISPOSAL CONSIDERATIONS

Dispose of in accordance with local, state, and federal regulations.

Section 14: TRANSPORT INFORMATION

Proper Shipping Name: Combustible Liquid, n.o.s. (Propylene Glycol Ethers)

Hazard Class: Comb. Liq.

Identification No.: NA1993

Packing Group: III

Label: Combustible (Bulk)

Section 15: REGULATORY INFORMATION

TSCA Inventory This product and/or its components are listed on the Toxic Substances Control Act (TSCA) inventory.

SARA 302/304 The Superfund Amendments and Reauthorization Act of 1986 (SARA) Title III requires facilities subject to Subparts 302 and 304 to submit emergency planning and notification information based on Threshold Planning Quantities (TPQs) and Reportable Quantities (RQs) for "Extremely Hazardous Substances" listed in 40 CFR 302.4 and 40 CFR 355. No components were identified.

SARA 313: Glycol Ether

CERCLA The Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) requires notification of the National Response Center concerning release of quantities of "hazardous substances" equal to or greater than the reportable quantities (RQ's) listed in 40 CFR 302.4. As defined by CERCLA, the term "hazardous substance" does not include petroleum, including crude oil or any fraction thereof which is not otherwise specifically designated in 40 CFR 302.4. Chemical substances present in this product or refinery stream that may be subject to this statute are: Potassium Hydroxide 1,000 lbs

SARA 311/312 Hazard The Superfund Amendments and Reauthorization Act of 1986 (SARA) Title III requires facilities subject to this subpart to submit aggregate information on chemicals by "Hazard Category" as defined in 40 CFR 370.2. This material would be classified under the following hazard categories: Acute, Chronic, Fire

California Prop 65: No components were identified.

Section 16: OTHER SUPPLEMENTAL INFORMATION

Last Revision Date: 28 August 2006

Preparation Date: 06 May 2015

Approved by: Troy Bergstedt, Director of Chemical Research, (218) 628-2217 ext. 142

Disclaimer:

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