



Shape Products

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MATERIAL SAFETY DATA SHEET

MIXED INDICATOR (pH 10.0 TRANSITION PT. PH 5.4)

MSDS# 4228

SECTION 1. PRODUCT IDENTIFICATION

PRODUCT NAME: MIXED INDICATOR (pH 10.0 TRANSITION PT. PH 5.4) YELLOW IN ACID, VIOLET-BLUE IN BASE
 CHEMICAL FORMULA: N/A SYNONYMS: N/A

SECTION 2. COMPOSITION INFORMATION ON INGREDIENTS

CHEMICAL NAMES	%	ACGIH TLV	OSHA PEL	CAS #
Methylene Blue	<1	N/A	N/A	61-73-4
Methyl Red	<1	N/A	N/A	493-52-7
Isopropyl Alcohol	50	400 ppm; 983 mg/m ³	400 ppm; 980 mg/m ³	67-63-0
WATER	BALANCE	N/A	N/A	7732-18-5

SECTION 3. HAZARDS IDENTIFICATION

PRECAUTIONARY RATINGS

0 = LEAST	HEALTH: 1
1 = SLIGHT	FIRE: 3
2 = MODERATE	REACTIVITY: 0
3 = HIGH	SPECIFIC HAZARD: N/A
4 = EXTREME	EMERGENCY CONTACT: CHEMTREC (800) 424-9300

EMERGENCY OVERVIEW

WARNING! FLAMMABLE LIQUID. Skin contact may cause irritation, dryness, and cracking. May absorb through skin. May cause irritation of the respiratory system. May affect central nervous system. Causes irritation to the eyes with possible burns. Harmful and maybe fatal if ingested with possible digestive tract burns. May cause kidney damage. May form explosive peroxides.

CARCINOGENICITY:

CAS# 493-52-7:
 IARC: IARC Group 3 - not classifiable
 CAS# 67-63-0:
 ACGIH: A4 - Not Classifiable as a Human Carcinogen
 IARC: IARC Group 3 - not classifiable.

SECTION 4. FIRST AID MEASURES

Eyes: Flush opened eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical attention.
Skin: Flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention if irritation persists.
Ingestion: If victim is conscious and alert, give large quantities of milk or water. Never give anything by mouth to an unconscious person. Get medical attention.
Inhalation: Remove to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid if cough or other symptoms appear.

SECTION 5. FIRE FIGHTING MEASURES

Flash Point: 18.3 C
LFL: 2.0%
Autoignition Temperature: 399 C
Extinguishing Media: Use dry chemical, carbon dioxide or alcohol-resistant foam. Use water with caution as vapors can backfire.
Fire and Explosion Hazards: Contact with strong oxidizers may cause fire or explosion. May form explosive peroxides.
Fire Fighting Instructions: Wear NIOSH-approved self-contained breathing apparatus.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Evacuate the area of all unnecessary personnel. Ventilate area of leak or spill. Remove ignition sources. May absorb with inert material (vermiculite, sand, etc.). May use water to dilute down and to reduce vapor. Containerize for proper disposal in compliance with federal, state, and local regulations.

SECTION 7. HANDLING AND STORAGE

Handling: wash hands thoroughly after handling. Avoid contact with eyes and skin.
Storage Requirements: keep storage containers tightly closed in a cool dry place. Store in flammable storage area away from ignition sources and excessive heat.

SECTION 8. EXPOSURE CONTROLS, PERSONAL PROTECTION

Engineering Controls: Use adequate ventilation to keep exposure concentrations low.

Respiratory Protection: Use fume hood with local exhaust system. Check with supplier or regulatory agency for appropriate NIOSH approved respirators.

Skin Protection: Chemical resistant gloves.

Eye Protection: Safety glasses or goggles with side shields.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

BOILING POINT: ca. 81C VAPOR PRESSURE(mmHg): ca. 44 pH: N/A
MELTING POINT: ca. -89 C VAPOR DENSITY(air=1): N/A
SPECIFIC GRAVITY: ca. 0.85 EVAPORATION RATE: ca. 2
SOLUBILITY(H₂O): VERY SOLUBLE APPEARANCE & ODOR: BROWN LIQUID; SLIGHT ALCOHOLIC ODOR

SECTION 10. STABILITY AND REACTIVITY

STABILITY: Stable under ordinary conditions. Heat and sunlight can contribute to instability.
INCOMPATIBILITY: Heat, flame, strong oxidizers, acetaldehyde, acids, chlorine, ethylene oxide, hydrogen-palladium combination, hydrogen peroxide-sulfuric acid combination, potassium tert-butoxide, hypochlorous acid, isocyanates, nitroform, phosgene, aluminum, oleum and perchloric acid.

HAZARDOUS POLYMERIZATION: WILL NOT OCCUR

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon dioxide and carbon.

CONDITIONS TO AVOID: Heat, flames, ignition sources and incompatibles.

SECTION 11. TOXICOLOGICAL INFORMATION

RTECS#:

CAS# 61-73-4: SO5600000

CAS# 493-52-7: DG8960000

CAS# 67-63-0: NT8050000

LD50/LC50:

CAS# 61-73-4:

Oral, mouse: LD50 = 3500 mg/kg;

Oral, rat: LD50 = 1180 mg/kg

CAS# 67-63-0:

Inhalation, rat: LC50 = 16000 ppm/8Hour;

Oral, mouse: LD50 = 3600 mg/kg;

Oral, rabbit: LD50 = 6410 mg/kg;

Oral, rat: LD50 = 5045 mg/kg;

Skin, rabbit: LD50 = 12.8 g/kg;

investigated as a tumorigen, mutagen, reproductive effector.

SECTION 12. ECOLOGICAL INFORMATION

Environmental Fate: Biodegrade moderately in water. Not expected to bioaccumulate.

Environmental Toxicity: Not expected to be toxic to aquatic life.

SECTION 13. DISPOSAL CONSIDERATIONS

PREPARING WASTES FOR DISPOSAL: DO NOT DUMP INTO FRESH AND/OR SALT WATER.

DO NOT DISPOSE NEAR/OR BY LANDFILL. ENSURE COMPLIANCE WITH LOCAL, STATE AND FEDERAL REGULATIONS.

SECTION 14. TRANSPORT INFORMATION

DOMESTIC (D.O.T.) TRANSPORTATION REQUIREMENT: Proper Shipping Name: ISOPROPANOL

Hazard Class: 3 UN/NA: UN1219 Packing Group: II

SECTION 15. REGULATORY INFORMATION

TSCA Inventory List:

All of the ingredients (or their hydrate forms) are listed.

CERCLA Reportable Quantity (RQ):

None of the ingredients have a RQ.

SARA Section 302 Threshold Planning Quality (TPQ):

None of the ingredients have a TPQ.

SARA Title Codes:

CAS # 61-73-4: acute, chronic.

CAS # 67-63-0: acute, chronic, flammable.

OSHA:

This product is not considered to be highly hazardous by OSHA Hazard Communication Standard.

SECTION 16. OTHER INFORMATION

ALL INFORMATION RECOMMENDATIONS AND SUGGESTIONS APPEARING HEREIN CONCERNING OUR PRODUCT ARE BASED UPON TESTS AND DATA BELIEVED TO BE RELIABLE, HOWEVER IT IS THE USER'S RESPONSIBILITY TO DETERMINE THE SAFETY, TOXICITY AND SUITABILITY FOR HIS/HER OWN USE OF THE PRODUCT DESCRIBED HEREIN. RECIPIENTS ARE ADVISED TO CONFIRM IN ADVANCE OF NEED, THAT THE INFORMATION IS CURRENT, APPLICABLE & SUITABLE TO THEIR CONDITIONS. SINCE THE ACTUAL USE BY OTHERS IS BEYOND OUR CONTROL. NO GUARANTEE, EXPRESSED OR IMPLIED IS MADE BY SHAPE PRODUCTS AS TO THE EFFECTS OF SUCH USE, SHAPE PRODUCTS DOES NOT ASSUME ANY LIABILITY ARISING OUT OF USE, BY OTHERS OF THE PRODUCTS REFERRED TO HEREIN. NOR IS THE INFORMATION HEREIN TO BE CONSTRUED AS ABSOLUTELY COMPLETE SINCE ADDITIONAL INFORMATION MAY BE NECESSARY OR DESIRABLE WHEN PARTICULAR OR EXCEPTIONAL CONDITIONS OR CIRCUMSTANCES EXIST OF BECAUSE OF APPLICABLE LAWS OR GOVERNMENT REGULATIONS. N/A= NOT AVAILABLE.