



1. PRODUCT AND COMPANY IDENTIFICATION

Product code 7212
Product name Medium Yellow
Product description 7200 Series Lacquer Screen Ink

Manufacturer or supplier's details

UNITED STATES
Nazdar Company
8501 Hedge Lane Terrace
Shawnee, KS 66227
Tel: 1-913-422-1888
Tel: 1-800-677-4657
Fax: 1-913-422-2294

UNITED KINGDOM
Nazdar Limited
7 Barton Road
Heaton Mersey Industrial Estate
Stockport, Chesire SK4 3EG
Tel: +44 161 442 2111

Emergency Telephone Number

USA: Chemtrec: 1-800-424-9300
Outside USA: Chemtrec: 1-703-527-3887

Website: www.nazdar.com
MSDS Information: 1-913-422-1888 ext 2305
MSDS Contact: Regulatory Compliance
email: regcomp@nazdar.com

2. HAZARDS IDENTIFICATION

This product is a preparation. Health hazard information is based on its components.

Appearance Viscous liquid
Flammable Properties FLAMMABLE LIQUID AND VAPOR.
Emergency Overview Harmful. Irritant. May cause drowsiness and dizziness.

Eyes Severe eye irritant. The liquid splashed in the eyes may cause irritation and reversible damage.

Skin Harmful in contact with skin. May cause skin irritation and/or dermatitis. May be harmful if absorbed through skin.

Inhalation Inhalation of high vapour concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting.

Ingestion Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea.

3. COMPOSITION/INFORMATION ON INGREDIENTS

| Component | CAS-No | Weight % |
|----------------------------------|------------|----------|
| Ethylene glycol monopropyl ether | 2807-30-9 | 10 - 30 |
| 2-Butoxyethanol | 111-76-2 | 10 - 30 |
| Isopropyl alcohol | 67-63-0 | 5 - 10 |
| Titanium dioxide | 13463-67-7 | 1 - 5 |
| Toluene | 108-88-3 | 1 - 5 |

4. FIRST AID MEASURES

Skin Contact Wash off immediately with soap and plenty of water. Use a mild soap if available. Rinse immediately with plenty of water for at least 15 minutes. Remove contaminated clothing. If irritation develops, get medical attention.

Eye Contact Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Get medical attention immediately if irritation develops and persists.

Inhalation Move to fresh air. If breathed in, move person into fresh air. If breathing is irregular or stopped, administer artificial respiration. Get medical attention immediately.

Ingestion If swallowed, DO NOT induce vomiting. Call a physician or Poison Control Centre immediately. Never give anything by mouth to an unconscious person.

5. FIRE-FIGHTING MEASURES

| | |
|--|--|
| Flammable Properties | FLAMMABLE LIQUID AND VAPOR. |
| Suitable Extinguishing Media | Foam. Carbon dioxide (CO ₂). Dry chemical. Water spray. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. |
| 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. Keep away from fire, sparks and heated surfaces. Keep container tightly closed. Cool containers / tanks with water spray. Fire or intense heat may cause violent rupture of packages. |
| Specific Hazards Arising from the Chemical | Keep product and empty container away from heat and sources of ignition. Risk of ignition. Thermal decomposition can lead to release of irritating gases and vapours. Burning produces obnoxious and toxic fumes. |

6. ACCIDENTAL RELEASE MEASURES

| | |
|----------------------------------|--|
| Personal Precautions | Remove all sources of ignition. Heat, flames and sparks. Ventilate the area. Avoid breathing dust or vapor. Avoid contact with skin, eyes and clothing. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. |
| Methods for Cleaning Up | Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see section 13). Do not use sparking tools. |
| 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. |

7. HANDLING AND STORAGE

| | |
|-----------------|--|
| Handling | Keep away from open flames, hot surfaces and sources of ignition. Take precautionary measures against static discharges. To avoid ignition of vapours by static electricity discharge, all metal parts of the equipment must be grounded. Avoid contact with skin, eyes and clothing. Ensure adequate ventilation. Remove and wash contaminated clothing before re-use. Discard contaminated shoes. When using do not smoke. Take notice of labels and material safety data sheets for the working chemicals. Do not take internally. Harmful or fatal if swallowed. |
| Storage | Keep containers tightly closed in a dry, cool and well-ventilated place. Keep container closed when not in use. Keep out of the reach of children. Keep away from heat and sources of ignition. Take notice of the directions of use on the label. |

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

| Component | Weight % | ACGIH TLV | OSHA PEL | Ontario TWAEV |
|----------------------------------|----------|----------------------------|--|---|
| Ethylene glycol monopropyl ether | 10 - 30 | | | TWA: 25 ppm TWA: 110 mg/m ³ Skin |
| 2-Butoxyethanol | 10 - 30 | TWA: 20 ppm | TWA: 120 mg/m ³ TWA: 25 ppm Skin TWA: 50 ppm TWA: 240 mg/m ³ | TWA: 20 ppm Skin |
| Isopropyl alcohol | 5 - 10 | TWA: 200 ppm STEL: 400 ppm | TWA: 400 ppm TWA: 980 mg/m ³ STEL: 1225 mg/m ³ STEL: 500 ppm | TWA: 200 ppm STEL: 400 ppm |
| Titanium dioxide | 1 - 5 | TWA: 10 mg/m ³ | TWA: 10 mg/m ³ TWA: 15 mg/m ³ | TWA: 10 mg/m ³ |

| Component | Weight % | ACGIH TLV | OSHA PEL | Ontario TWAEV |
|-----------|----------|-------------|---|---------------|
| Toluene | 1 - 5 | TWA: 20 ppm | TWA: 100 ppm TWA: 375 mg/m ³ STEL: 560 mg/m ³ STEL: 150 ppm TWA: 200 ppm Ceiling: 300 ppm | TWA: 20 ppm |

| Component | Weight % | NIOSH IDLH | Mexico OEL (TWA) |
|-------------------|----------|------------------------|--|
| 2-Butoxyethanol | 10 - 30 | 700 ppm | TWA: 120 mg/m ³ TWA: 26 ppm STEL: 360 mg/m ³ STEL: 75 ppm |
| Isopropyl alcohol | 5 - 10 | 2000 ppm 10% LEL | TWA: 400 ppm TWA: 980 mg/m ³ STEL: 1225 mg/m ³ STEL: 500 ppm |
| Titanium dioxide | 1 - 5 | 5000 mg/m ³ | TWA: 10 mg/m ³ STEL: 20 mg/m ³ |
| Toluene | 1 - 5 | 500 ppm | TWA: 50 ppm TWA: 188 mg/m ³ |

NIOSH IDLH: Immediately Dangerous to Life or Health

Engineering Measures

Use only with adequate ventilation. Use ventilation adequate to keep exposures below recommended exposure limits. See MSDS. In case of insufficient ventilation, wear suitable respiratory equipment.

Personal Protective Equipment Respiratory Protection

Use the indicated respiratory protection if the occupational exposure limit is exceeded and/or in case of product release (dust). Respirator with a vapour filter.

Eye Protection

Ensure that eyewash stations and safety showers are close to the workstation location. Avoid contact with eyes. Safety glasses with side-shields. Goggles. Face-shield.

Skin Protection

Wear protective gloves/clothing. Solvent-resistant apron and boots.

General Hygiene Considerations

Handle in accordance with good industrial hygiene and safety practice. Ensure that eyewash stations and safety showers are close to the workstation location. Wash hands before eating, drinking, or smoking. Remove and wash contaminated clothing before re-use. Regular cleaning of equipment, work area and clothing. Avoid contact with skin, eyes and clothing. Wear suitable gloves and eye/face protection.

9. PHYSICAL AND CHEMICAL PROPERTIES

| | | | |
|------------------------------------|--------------------------|--|--------------------------|
| Appearance | Viscous liquid | Physical State | Liquid |
| Odor | Characteristic | Odor Threshold | No information available |
| pH | No information available | Autoignition Temperature | No information available |
| Boiling point/Boiling Range | >149°C / >300°F | Melting Point/Range | No information available |
| Freezing Point/Range | No information available | Solubility | No information available |
| Evaporation Rate | No information available | Partition Coefficient (n-octanol/water) | No information available |
| Vapour Pressure | No information available | Vapour Density | Heavier than air |
| Flammability (solid, gas) | No information available | Flash Point | 32°C / 90°F |
| Flammability Limits in Air | | Method | Tag closed cup |
| Upper | No information available | Photochemically Reactive | No |
| Lower | No information available | Specific Gravity | 1.083 |
| Weight Per Gallon (lbs/gal) | 9.034 | VOC by volume | 52.914 |
| VOC by weight | 49.725 | VOC grams/liter | 538.819 |
| VOC lbs/gal | 4.497 | | |

10. STABILITY AND REACTIVITY

Chemical Stability

Stable under normal conditions.

| | |
|---|--|
| Conditions to Avoid | Heat, flames and sparks. |
| Incompatible Products | Strong acids. Strong bases. Strong oxidizing agents. Reducing agents. |
| Hazardous Decomposition Products | Thermal decomposition can lead to release of irritating gases and vapours. Carbon dioxide (CO ₂). Carbon monoxide. |
| Possibility of Hazardous Reactions | None under normal processing. |

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

| Component | LD50 Oral | LD50 Dermal | LC50 Inhalation |
|----------------------------------|---------------------|--|---|
| Ethylene glycol monopropyl ether | 3089 mg/kg (Rat) | 960 µL/kg (Rabbit) | |
| 2-Butoxyethanol | 470 mg/kg (Rat) | 2270 mg/kg (Rat) 220 mg/kg (Rabbit) | 2.21 mg/L (Rat) 4 h 450 ppm (Rat) 4 h |
| Isopropyl alcohol | 4396 mg/kg (Rat) | 12800 mg/kg (Rat) 12870 mg/kg (Rabbit) | 72.6 mg/L (Rat) 4 h |
| Titanium dioxide | 10000 mg/kg (Rat) | | |
| Toluene | 636 mg/kg (Rat) | 8390 mg/kg (Rabbit) 12124 mg/kg (Rat) | 12.5 mg/L (Rat) 4 h 26700 ppm (Rat) 1 h |

Chronic Toxicity

| Component | ACGIH | IARC | NTP | OSHA |
|------------------|-------|----------|-----|------|
| 2-Butoxyethanol | A3 | | | |
| Titanium dioxide | | Group 2B | | X |

Legend:

ACGIH: (American Conference of Governmental Industrial Hygienists)
 IARC: (International Agency for Research on Cancer)
 OSHA: (Occupational Safety & Health Administration)

A3 - Animal Carcinogen
 Group 2B - Possibly Carcinogenic to Humans
 X - Present

| | |
|------------------------------|--|
| Sensitisation | No information available |
| Mutagenic Effects | No information available |
| Reproductive Effects | No information available |
| Developmental Effects | No information available |
| Teratogenicity | No information available |
| Chronic Effects | Exposure to component solvent vapour concentrations in excess of the stated occupational exposure limit may result in adverse health effect, such as mucous membrane and respiratory system irritation and adverse effect on kidney, liver and central nervous system. |
| Target Organ Effects | Blood, Central nervous system, Eyes, Hematopoietic System, Kidney, Liver, Lungs, Respiratory system, Skin. |

12. ECOLOGICAL INFORMATION

Ecotoxicity

We have no quantitative data concerning the ecological effects of this product. Should not be released into the environment.

| Component | Freshwater Algae | Freshwater Fish | Water Flea |
|-----------------|------------------|---|--|
| 2-Butoxyethanol | | 96 Hr LC50 Lepomis macrochirus: 2950 mg/L | 24 Hr EC50 water flea: 1720 mg/L; 24 Hr LC50 Daphnia magna: 1698-1940 mg/L |

| Component | Freshwater Algae | Freshwater Fish | Water Flea |
|-------------------|--|--|--|
| Isopropyl alcohol | 96 Hr EC50 Scenedesmus subspicatus: >1000 mg/L; 72 Hr EC50 Scenedesmus subspicatus: >1000 mg/L | 96 Hr LC50 Pimephales promelas: 9640 mg/L [flow-through]; 96 Hr LC50 Pimephales promelas: 11130 mg/L [static] | 48 Hr EC50 Daphnia magna: 13299 mg/L |
| Toluene | 96 Hr EC50 Selenastrum capricornutum: >433 mg/L | 96 Hr LC50 Pimephales promelas: 25 mg/L [flow-through] (1 day old); 96 Hr LC50 Oncorhynchus mykiss: 24.0 mg/L [flow-through]; 96 Hr LC50 Lepomis macrochirus: 24.0 mg/L [static]; 96 Hr LC50 Lepomis macrochirus: 13 mg/L [static] | 48 Hr EC50 water flea: 11.3 mg/L; 48 Hr EC50 water flea: 310 mg/L; 48 Hr EC50 Daphnia magna: 11.3 mg/L |

Persistence and Degradability No information available
Bioaccumulation No information available
Mobility in Environmental Media No information available

| Component | log Pow |
|-------------------|---------|
| 2-Butoxyethanol | 0.81 |
| Isopropyl alcohol | 0.05 |
| Toluene | 2.65 |

13. DISPOSAL CONSIDERATIONS

Waste Disposal Methods Dispose of contents/container in accordance with local regulation.

Contaminated Packaging Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. TRANSPORT INFORMATION

DOT

UN1210, Printing Ink, 3, III

ICAO/IATA

UN1210, Printing Ink, 3, III

IMDG/IMO

UN1210, Printing Ink, 3, III

15. REGULATORY INFORMATION

International Inventories

Listed on TSCA. For further information, please contact: Manufacturer, importer, supplier

U.S. Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

| Component | CAS-No | Weight % | SARA 313 - Threshold Values |
|----------------------------------|-----------|----------|-----------------------------|
| Toluene | 108-88-3 | 1 - 5 | 1.0 |
| Ethylene glycol monopropyl ether | 2807-30-9 | 10 - 30 | 1.0 |
| 2-Butoxyethanol | 111-76-2 | 10 - 30 | 1.0 |

Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)

This product contains the following HAPs:

| Component | CAS-No | Weight % |
|----------------------------------|-----------|----------|
| Toluene | 108-88-3 | 1 - 5 |
| Ethylene glycol monopropyl ether | 2807-30-9 | 10 - 30 |

U.S. State Regulations**California Prop. 65**

WARNING! This product contains a chemical known in the State of California to cause cancer. WARNING! This product contains a chemical known in the State of California to cause birth defects or other reproductive harm.

| Component | CAS-No | Weight % |
|-----------------------------|----------|----------|
| Toluene | 108-88-3 | 1 - 5 |
| Ethyl benzene (contaminant) | 100-41-4 | < 0.1 |
| Benzene | 71-43-2 | < 0.0001 |

State Right-to-Know

| Component | Minnesota | Florida | New Jersey | Pennsylvania | Massachusetts | Rhode Island |
|----------------------------------|------------|------------|------------|--------------|---------------|--------------|
| Ethylene glycol monopropyl ether | Not Listed | Not Listed | X | X | Not Listed | Not Listed |
| 2-Butoxyethanol | Not Listed | Not Listed | X | X | X | X |
| Isopropyl alcohol | Not Listed | Not Listed | X | X | X | X |
| Titanium dioxide | Not Listed | Not Listed | X | X | X | X |
| Toluene | Not Listed | Not Listed | X | X | X | X |

Canada

This product has been classified according to the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR

| Component | WHMIS Classifications of Components |
|----------------------------------|-------------------------------------|
| Ethylene glycol monopropyl ether | B3, D1B, D2B |
| 2-Butoxyethanol | B3, D1A, D2B |
| Isopropyl alcohol | B2, D2B (including 70%) |
| Titanium dioxide | D2A |
| Toluene | B2, D2A, D2B |

| Component | NPRI - National Pollutant Release Inventory |
|----------------------------------|--|
| Ethylene glycol monopropyl ether | Part 4 Substance |
| 2-Butoxyethanol | Part 4 Substance Part 1, Group 1 Substance; Part 5 Substance |
| Isopropyl alcohol | Part 1, Group 1 Substance; Part 5 Substance Part 4 Substance |
| Toluene | Part 4 Substance Part 1, Group 1 Substance; Part 5 Substance |

REACH: Substances of Very High Concern (SVHC): Article 57 of Regulation (EC) No 1907/2006

Does NOT contain a listed substance

| | | | | |
|--------------|---------------|---------------------|-------------------|------------|
| HMIS: | Health | Flammability | Reactivity | PPE |
| | 2* | 3 | 0 | X |

16. OTHER INFORMATION

Revision Date Apr-24-2009

Revision Summary New MSDS format

Disclaimer

The information provided in this 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 MSDS