

SAFETY DATA SHEET

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1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

| Product identifier | |
|--------------------|--|
| Product code | 89411 |
| Product name | Warm Red |
| Product category | 8900 Series SuperSet Thermo-Set Screen Ink |

None

Other means of identification Synonyms

Recommended use of the chemical and restrictions on useRecommended usePrinting operations

Details of the supplier of the safety data sheet

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 www.nazdar.com UNITED KINGDOM Nazdar Limited Barton Road Heaton Mersey Stockport, England SK4 3EG Tel: +44 161 442 2111

Emergency telephone number

USA: Chemtrec: 1-800-424-9300 Outside USA: Chemtrec: 1-703-527-3887 24 Hour Emergency Phone Number

2. HAZARDS IDENTIFICATION

Classification

| Serious eye damage/eye irritation | Category 2 - (H319) |
|-----------------------------------|---------------------|
| Flammable liquids | Category 3 - (H226) |

Label elements



Warning

Hazard Statements

H319 - Causes serious eye irritation H226 - Flammable liquid and vapor EUH208 - May produce an allergic reaction

Precautionary Statements

P210 - Keep away from heat/sparks/open flames/hot surfaces. - No smoking

Hazards not otherwise classified (HNOC)

No information available.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Mixture

| Component | CAS-No | Weight % | Trade Secret | Note |
|-------------------------------------|------------|----------|-----------------|------|
| Diethylene glycol monobutyl ether | 112-34-5 | 1 - 5 | * | |
| Naphtha (petroleum), heavy aromatic | 64742-94-5 | 1 - 5 | * | |
| Naphthalene (constituent) | 91-20-3 | < 0.5 | * | 1 |

*The exact percentage (concentration) of composition has been withheld as a trade secret.

Note 1. Type of chemical: Constituent

4. FIRST AID MEASURES

Description of first aid measures

| General Advice Eye Contact | Show this safety data sheet to the doctor in attendance. Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Get medical attention if irritation develops and persists. |
|-------------------------------|---|
| Skin Contact | Wash off immediately with soap and plenty of water for at least 15 minutes. Remove contaminated clothing. If irritation (redness, rash, blistering) develops, get medical attention. |
| Inhalation | Remove person to fresh air and keep comfortable for breathing. If breathing is irregular or stopped, administer artificial respiration. Get medical attention immediately. |
| Ingestion | DO NOT induce vomiting. Never give anything by mouth to an unconscious person. Call a physician or poison control center immediately. |

Most important symptoms and effects, both acute and delayed

None under normal use conditions.

Indication of any immediate medical attention and special treatment needed

Notes to Physician

Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Foam. Carbon dioxide (CO2). Dry chemical. Water spray. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable Extinguishing Media

No information available.

Specific Hazards Arising from the Chemical

Thermal decomposition can lead to release of irritating gases and vapors. May emit toxic fumes under fire conditions.

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. Cool containers / tanks with water spray. Sealed containers may rupture when heated.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal Precautions

Remove all sources of ignition. Ventilate the area. Avoid contact with eyes, skin and

clothing. Avoid breathing dust or vapor. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.

Environmental precautions

Prevent product from entering drains. Prevent further leakage or spillage if safe to do so. Keep out of drains, sewers, ditches and waterways. Local authorities should be advised if significant spillages cannot be contained.

Methods and material for containment and cleaning up

Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). Use clean non-sparking tools to collect absorbed material.

7. HANDLING AND STORAGE

Precautions for safe handling

Handling

Use personal protective equipment as required. Do not eat, drink or smoke when using this product. Ensure adequate ventilation.

Conditions for safe storage, including any incompatibilities

StorageKeep containers tightly closed in a dry, cool and well-ventilated place. Keep away from
open flames, hot surfaces and sources of ignition. Keep container closed when not in use.
Keep out of the reach of children.

Incompatible Products

Strong acids. Strong bases. Strong oxidizing agents. Reducing agent.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure limits

| Component | ACGIH TLV |
|--------------------------------------|----------------------------|
| Naphthalene (constituent) 91-20-3 | TWA: 10 ppm |
| 91-20-3 | STEL: 15 ppm Skin |
| | |
| Component | OSHA PEL |
| Naphthalene (constituent) | TWA: 10 ppm |
| 91-20-3 | TWA: 50 mg/m ³ |
| | STEL: 15 ppm |
| | STEL: 75 mg/m ³ |

| Component | Ontario TWAEV |
|---------------------------|---------------|
| Naphthalene (constituent) | TWA: 10 ppm |
| 91-20-3 | STEL: 15 ppm |
| | Skin |

| Component | Mexico OEL (TWA) |
|---------------------------|------------------------------------|
| Naphthalene (constituent) | TWA/LMPE-PPT: 10 ppm |
| 91-20-3 | TWA/LMPE-PPT: 50 mg/m ³ |
| | STEL/LMPE-CT: 15 ppm |
| | STEL/LMPE-CT: 75 mg/m ³ |

Appropriate engineering controls

Engineering Measures

Provide a good standard of general ventilation. Natural ventilation is from doors, windows etc. Controlled ventilation means air is supplied or removed by a powered fan. Users are advised to consider national Occupational Exposure Limits or other equivalent values. In case of insufficient ventilation, wear suitable respiratory equipment.

Individual protection measures, such as personal protective equipment

| Eye/face Protection | Wear safety glasses with side shields (or goggles). If splashes are likely to occur:. Wear suitable face shield. Ensure that eyewash stations and safety showers are close to the workstation location. |
|--------------------------------|--|
| Skin Protection | Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact. |
| Respiratory Protection | If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Respiratory protection must be provided in accordance with current local regulations. |
| General Hygiene Considerations | Handle in accordance with good industrial hygiene and safety practice. Wash hands before eating, drinking or smoking. Wash contaminated clothing before reuse. Avoid contact with eyes, skin and clothing. Wear suitable gloves and eye/face protection. Regular cleaning of equipment, work area and clothing is recommended. |

9. PHYSICAL AND CHEMICAL PROPERTIES

| Information on basic physical and Physical State | Liquid | Appearance | Colored Liquid |
|---|-------------------|----------------------|--------------------------|
| Odor | Characteristic | Odor Threshold | No information available |
| Property | Values | Remarks • Method | |
| pH | Valueo | No data available | |
| Melting point/freezing point | | No data available | |
| Boiling point/Boiling Range | > 149 °C / 300 °F | | |
| Flash Point | 46 °C / 115 °F | Pensky Martens Close | d Cup (PMCC) |
| Evaporation rate | | No data available | |
| Flammability Limit in Air | | | |
| Upper flammability limit | | No data available | |
| Lower flammability limit | | No data available | |
| Vapor Pressure | | No data available | |
| Vapor Density | | No data available | |
| Specific Gravity | 1.15 | | |
| Water Solubility | | No data available | |
| Solubility in other solvents | | No data available | |
| Partition coefficient: n-octanol/wa | ater | No data available | |
| Autoignition Temperature | | No data available | |
| Decomposition temperature | | No data available | |
| Kinematic viscosity | | No data available | |
| Dynamic viscosity | | No data available | |
| Explosive Properties | No data available | | |
| Oxidizing Properties | No data available | | |
| Oxidizing r operties | | | |
| Other Information | | | |
| Photochemically Reactive | No | | |
| Weight Per Gallon (lbs/gal) | 9.6 | | |
| Weight i er Gallon (155/gal) | 3.0 | | |
| VOC by weight % | VOC by volume % | VOC lbs/gal | VOC grams/liter |
| (less water) | (less water) | (less water) | (less water) |
| 7.79 | 9.56 | 0-1 | 89.71 |
| | | | |
| | 10. STABILITY AN | | |

Reactivity No information available.

<u>Chemical stability</u> Stable under normal conditions.

Possibility of Hazardous Reactions

None under normal processing.

Conditions to avoid

Keep away from open flames, hot surfaces and sources of ignition.

Incompatible materials

Strong acids. Strong bases. Strong oxidizing agents. Reducing agent.

Hazardous Decomposition Products

Thermal decomposition can lead to release of irritating gases and vapors. Carbon dioxide (CO2). Carbon monoxide.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

| Inhalation | There is no data for this product. |
|--------------|------------------------------------|
| Eye Contact | There is no data for this product. |
| Skin Contact | There is no data for this product. |
| Ingestion | There is no data for this product. |

| Component | Oral LD50 |
|---|-------------------|
| Diethylene glycol monobutyl ether 112-34-5 | 3384 mg/kg (Rat) |
| Naphtha (petroleum), heavy aromatic 64742-94-5 | >5000 mg/kg (Rat) |
| Naphthalene (constituent) 91-20-3 | 490 mg/kg (Rat) |

| Component | LD50 Dermal | |
|---|--|--|
| Diethylene glycol monobutyl ether 112-34-5 | 2700 mg/kg (Rabbit) | |
| Naphtha (petroleum), heavy aromatic 64742-94-5 | >2000 mg/kg (Rabbit) | |
| Naphthalene (constituent) 91-20-3 | >2500 mg/kg (Rat) >20 g/kg (Rabbit) | |
| Component | Inhalation LC50 | |
| Naphtha (petroleum), heavy aromatic | >590 mg/m³ (Rat) 4 h | |

| 64742-94-5 | |
|--------------------------------------|---------------------|
| Naphthalene (constituent) 91-20-3 | >340 mg/m³ (Rat)1 h |
| | |

Information on toxicological effects

Symptoms

There is no data for this product.

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

| Skin corrosion/irritation | There is no data for this product. |
|---------------------------|--|
| Eye damage/irritation | There is no data for this product. |
| Irritation | There is no data for this product. |
| Corrosivity | There is no data for this product. |
| Sensitisation | There is no data for this product. |
| Mutagenic Effects | There is no data for this product. |
| Reproductive Effects | There is no data for this product. |
| STOT - single exposure | There is no data for this product. |
| STOT - repeated exposure | There is no data for this product. |
| Chronic Toxicity | There is no data for this product |
| Aspiration hazard | There is no data for this product. |
| Carcinogenicity | The table below indicates whether each agency has listed any ingredient as a carcinogen. |
| | |

Component

IARC

| Naphthalene (constituent) 91-20-3 | Group 2B | | |
|--------------------------------------|------------------------|--|--|
| Component | NTP | | |
| Naphthalene (constituent) 91-20-3 | Reasonably Anticipated | | |
| Component | OSHA | | |
| Naphthalene (constituent) 91-20-3 | X | | |

Numerical measures of toxicity - Product Information

The following values are calculated based on chapter 3.1 of the GHS document

| ATEmix (oral) | 49,301.00 mg/kg |
|-----------------|-----------------|
| ATEmix (dermal) | 41,342.00 mg/kg |

12. ECOLOGICAL INFORMATION

Ecotoxicity

None known

0% of the mixture consists of components(s) of unknown hazards to the aquatic environment

| Component | Algae/aquatic plants |
|---|--|
| Diethylene glycol monobutyl ether 112-34-5 | 96h EC50 Desmodesmus subspicatus: >100 mg/L |
| Naphthalene (constituent) 91-20-3 | 72h EC50 Skeletonema costatum: 0.4 mg/L |
| Component | Fish |
| Diethylene glycol monobutyl ether 112-34-5 | 96h LC50 Lepomis macrochirus: 1300 mg/L [static] |
| Naphthalene (constituent) 91-20-3 | 96h LC50 Oncorhynchus mykiss: 0.91 - 2.82 mg/L [static] 96h LC50 Pimephales promelas: 5.74 - 6.44 mg/L [flow-through] 96h LC50 Oncorhynchus mykiss: 1.6 mg/L [flow-through] 96h LC50 Pimephales promelas: 1.99 mg/L [static] 96h LC50 Lepomis macrochirus: 31.0265 mg/L [static] |

| Component | Crustacea |
|-----------------------------------|--|
| Diethylene glycol monobutyl ether | 24h EC50 Daphnia magna: 2850 mg/L |
| 112-34-5 | 48h EC50 Daphnia magna: >100 mg/L |
| Naphthalene (constituent) | 48h EC50 Daphnia magna: 1.09 - 3.4 mg/L [static] |
| 91-20-3 | 48h EC50 Daphnia magna: 1.96 mg/L [Flow through] |
| | 48h LC50 Daphnia magna: 2.16 mg/L |

Persistence and Degradability

No information available.

Bioaccumulation

No information available.

| Component | Partition coefficient |
|---|-----------------------|
| Naphtha (petroleum), heavy aromatic 64742-94-5 | 4.5 |
| Naphthalene (constituent) 91-20-3 | 3.3 |

Other adverse effects

No information available

13. DISPOSAL CONSIDERATIONS

| Waste treatment methods | Waste treatment methods | | |
|--|--|--|--|
| Waste Disposal Methods | Contain and dispose of waste according to local regulations. | | |
| Contaminated Packaging | Empty containers should be taken to an approved waste handling site for recycling or disposal. | | |
| | 14. TRANSPORT INFORMATION | | |
| DOT UN/ID no. Proper Shipping Name Hazard Class Packing Group | In the U.S. and Canada, this material may be reclassified as a combustible liquid and is not regulated, via surface transportation, in containers less than 119 gallons or 450 liters [per 49 CFR 173.150 (f)] [per Transportation of Dangerous Goods Regulations/Clear Language Part 1.33]. UN1210 Printing Ink 3 III | | |
| ICAO / IATA / IMDG / IMO UN/ID no. Proper Shipping Name Hazard Class Packing Group | UN1210 Printing Ink 3 III | | |

15. REGULATORY INFORMATION

International Inventories

All components are listed on the TSCA Inventory. For further information, please contact:. Supplier (manufacturer/importer/downstream user/distributor).

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 |
|-----------------------------------|----------|----------|--------------------------------|
| Diethylene glycol monobutyl ether | 112-34-5 | 1 - 5 | 1.0 |
| Naphthalene (constituent) | 91-20-3 | < 0.5 | 0.1 |

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

This product contains the following substances which are listed hazardous air pollutants (HAPS) under Section 112 of the Clean Air Act:

| CAS-No | Weight % |
|----------|--------------------|
| 112-34-5 | 1 - 5 |
| | CAS-No 112-34-5 |

U.S. State Regulations

Diethylene glycol monobutyl ether

| Component | Massachusetts Right To Know | |
|--------------------------------------|--------------------------------|--|
| Naphthalene (constituent) 91-20-3 | X | |
| Component | Minnesota Right To Know | |
| Naphthalene (constituent) 91-20-3 | X | |
| Component | New Jersey Right To Know | |

Х

| 112-34-5 | |
|---|-------------------------------|
| Naphthalene (constituent) 91-20-3 | X |
| Component | Pennsylvania Right To Know |
| Diethylene glycol monobutyl ether 112-34-5 | x |
| Naphthalene (constituent) 91-20-3 | X |

California Prop. 65

This product contains chemical(s) known to the State of California to cause cancer and/or to cause birth defects or other reproductive harm

| Component | California Prop. 65 |
|---------------------------|---------------------|
| Naphthalene (constituent) | Carcinogen |

Canada

| Component | NPRI - National Pollutant Release Inventory |
|---|--|
| Diethylene glycol monobutyl ether 112-34-5 | Part 5, Other Groups and Mixtures Part 4 Substance as set out in Section 65 of the List of Toxic Substances in Schedule 1 of the Canadian Environmental Protection Act, 1999 |
| Naphtha (petroleum), heavy aromatic 64742-94-5 | Part 5, Other Groups and Mixtures Part 4 Substance as set out in Section 65 of the List of Toxic Substances in Schedule 1 of the Canadian Environmental Protection Act, 1999 |
| Naphthalene (constituent) 91-20-3 | Part 1, Group A Substance Part 4 Substance as set out in Section 65 of the List of Toxic Substances in Schedule 1 of the Canadian Environmental Protection Act, 1999 |

| | 16 | . OTHER INFORMATIO | ON | |
|-------|--------|--------------------|-----------------|--------------------------|
| HMIS: | Health | Flammability 2 | Reactivity 0 | Personal Protection X |

Key or legend to abbreviations and acronyms used in the safety data sheet

Legend - Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

| TŴĂ | TWA (time-weighted average) |
|---------|----------------------------------|
| STEL | STEL (Short Term Exposure Limit) |
| Ceiling | Maximum limit value |
| | |

ACGIH: (American Conference of Governmental Industrial Hygienists)

A1 - Known Human Carcinogen
A2 - Suspected Human Carcinogen
A3 - Animal Carcinogen
IARC: (International Agency for Research on Cancer)
Group 1 - Carcinogenic to Humans
Group 2A - Probably Carcinogenic to Humans
Group 2B - Possibly Carcinogenic to Humans
NTP: (National Toxicity Program)
Known - Known Carcinogen
Reasonably Anticipated to be a Human Carcinogen
OSHA: (Occupational Safety & Health Administration)
X - Present

Revision Date

May-30-2015

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