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

Product identifier

Product code **59135**
Product name **Gloss Coating Varnish**
Product category **59000 Series Enamel Plus Gloss Screen Ink**

Other means of identification

Synonyms None

Recommended use of the chemical and restrictions on use

Recommended use Printing operations

Details of the supplier of the safety data sheet

| | |
|--|----------------------------|
| UNITED STATES | UNITED KINGDOM |
| Nazdar Company | Nazdar Limited |
| 8501 Hedge Lane Terrace | Barton Road |
| Shawnee, KS 66227 | Heaton Mersey |
| Tel: 1-913-422-1888 | Stockport, England SK4 3EG |
| Tel: 1-800-677-4657 | Tel: +44 161 442 2111 |
| Fax: 1-913-422-2294 | |
| www.nazdar.com | |

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) |
| Skin sensitization | Category 1 - (H317) |
| Carcinogenicity | Category 2 - (H351) |
| Aspiration toxicity | Category 1 - (H304) |
| Flammable liquids | Category 3 - (H226) |

Label elements



Signal Word
Danger

Hazard Statements

H304 - May be fatal if swallowed and enters airways
H317 - May cause an allergic skin reaction
H319 - Causes serious eye irritation

H351 - Suspected of causing cancer
 H226 - Flammable liquid and vapor

P280 - Wear eye protection/ face protection
 P280 - Wear protective gloves/protective clothing/eye protection/face protection
 P331 - Do NOT induce vomiting
 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 |
|---|--------------|----------|--------------|------|
| Stoddard solvent | 8052-41-3 | 30 - 60 | * | |
| Solvent naphtha (petroleum), medium aliphatic | 64742-88-7 | 5 - 10 | * | |
| Xylenes (o-, m-, p- isomers) | 1330-20-7 | 1 - 5 | * | |
| Methyl ethyl ketoxime | 96-29-7 | 1 - 5 | * | |
| Calcium stearate | 1592-23-0 | 1 - 5 | * | |
| Ethyl benzene (constituent) | 100-41-4 | < 0.5 | * | 1 |
| Cobalt Compounds | Trade Secret | < 0.5 | * | |

*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**

Show this safety data sheet to the doctor in attendance.

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 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

Storage

Keep 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 |
|---|-------------------------------|
| Stoddard solvent 8052-41-3 | TWA: 100 ppm |
| Xylenes (o-, m-, p- isomers) 1330-20-7 | TWA: 100 ppm STEL: 150 ppm |
| Ethyl benzene (constituent) 100-41-4 | TWA: 20 ppm |

| Component | OSHA PEL |
|---|--|
| Stoddard solvent 8052-41-3 | TWA: 100 ppm TWA: 525 mg/m ³ TWA: 500 ppm TWA: 2900 mg/m ³ |
| Xylenes (o-, m-, p- isomers) 1330-20-7 | TWA: 100 ppm TWA: 435 mg/m ³ STEL: 150 ppm STEL: 655 mg/m ³ |
| Ethyl benzene (constituent) 100-41-4 | TWA: 100 ppm TWA: 435 mg/m ³ STEL: 125 ppm |

| | |
|--|-----------------------------|
| | STEL: 545 mg/m ³ |
|--|-----------------------------|

| Component | Ontario TWAEV |
|---|-------------------------------|
| Stoddard solvent 8052-41-3 | TWA: 525 mg/m ³ |
| Solvent naphtha (petroleum), medium aliphatic 64742-88-7 | TWA: 525 mg/m ³ |
| Xylenes (o-, m-, p- isomers) 1330-20-7 | TWA: 100 ppm STEL: 150 ppm |
| Ethyl benzene (constituent) 100-41-4 | TWA: 100 ppm STEL: 125 ppm |

| Component | Mexico OEL (TWA) |
|---|---|
| Stoddard solvent 8052-41-3 | TWA/LMPE-PPT: 100 ppm TWA/LMPE-PPT: 523 mg/m ³ STEL/LMPE-CT: 200 ppm STEL/LMPE-CT: 1050 mg/m ³ |
| Xylenes (o-, m-, p- isomers) 1330-20-7 | TWA/LMPE-PPT: 100 ppm TWA/LMPE-PPT: 435 mg/m ³ STEL/LMPE-CT: 150 ppm STEL/LMPE-CT: 655 mg/m ³ |
| Ethyl benzene (constituent) 100-41-4 | TWA/LMPE-PPT: 100 ppm TWA/LMPE-PPT: 435 mg/m ³ STEL/LMPE-CT: 125 ppm STEL/LMPE-CT: 545 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 chemical properties

| | | | |
|-------------------------------------|-------------------|-------------------------|--------------------------|
| Physical State | Liquid | Appearance | Colored Liquid |
| Odor | Characteristic | Odor Threshold | No information available |
| Property | Values | Remarks • Method | |
| pH | | No data available | |
| Melting point/freezing point | | No data available | |
| Boiling point/Boiling Range | > 149 °C / 300 °F | | |
| Flash Point | 46 °C / 115 °F | Setaflash closed cup | |
| 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 | 0.92 | |
| Water Solubility | | No data available |
| Solubility in other solvents | | No data available |
| Partition coefficient: n-octanol/water | | 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 | |

Other Information

| | |
|------------------------------------|------|
| Photochemically Reactive | No |
| Weight Per Gallon (lbs/gal) | 7.68 |

| VOC by weight % (less water) | VOC by volume % (less water) | VOC lbs/gal (less water) | VOC grams/liter (less water) |
|---------------------------------|---------------------------------|-----------------------------|---------------------------------|
| 45.94 | 47.01 | 3.53 | 423.27 |

10. STABILITY AND REACTIVITY**Reactivity**

No information available.

Chemical stability

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 |
|---|---------------------|
| Solvent naphtha (petroleum), medium aliphatic 64742-88-7 | >5000 mg/kg (Rat) |
| Xylenes (o-, m-, p- isomers) 1330-20-7 | 4300 mg/kg (Rat) |
| Methyl ethyl ketoxime 96-29-7 | 930 mg/kg (Rat) |
| Calcium stearate | >10 g/kg (Rat) |

| | |
|---|--------------------|
| 1592-23-0 | |
| Ethyl benzene (constituent) 100-41-4 | 3500 mg/kg (Rat) |

| Component | LD50 Dermal |
|---|------------------------|
| Solvent naphtha (petroleum), medium aliphatic 64742-88-7 | 3000 mg/kg (Rabbit) |
| Xylenes (o-, m-, p- isomers) 1330-20-7 | >1700 mg/kg (Rabbit) |
| Methyl ethyl ketoxime 96-29-7 | 0.2 mg/kg (Rabbit) |
| Ethyl benzene (constituent) 100-41-4 | 15354 mg/kg (Rabbit) |

| Component | Inhalation LC50 |
|---|--|
| Solvent naphtha (petroleum), medium aliphatic 64742-88-7 | >5.28 mg/L (Rat) 4 h |
| Xylenes (o-, m-, p- isomers) 1330-20-7 | 5000 ppm (Rat) 4 h 47635 mg/L (Rat) 4 h |
| Methyl ethyl ketoxime 96-29-7 | 20 mg/L (Rat) 4 h |
| Ethyl benzene (constituent) 100-41-4 | 17.2 mg/L (Rat) 4 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 | ACGIH |
|---|-------|
| Ethyl benzene (constituent) 100-41-4 | A3 |

| Component | IARC |
|---|----------|
| Ethyl benzene (constituent) 100-41-4 | Group 2B |
| Cobalt Compounds | Group 2B |

| Component | OSHA |
|---|------|
| Ethyl benzene (constituent) 100-41-4 | X |
| Cobalt Compounds | X |

Numerical measures of toxicity - Product Information

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

ATEmix (oral) 27,605.00 mg/kg
ATEmix (dermal) 18,995.00 mg/kg

ATEmix (inhalation-dust/mist) 33.00 mg/l
 ATEmix (inhalation-vapor) 632.00 mg/l

12. ECOLOGICAL INFORMATION

Ecotoxicity

None known

1.01% of the mixture consists of components(s) of unknown hazards to the aquatic environment

| Component | Algae/aquatic plants |
|---|--|
| Solvent naphtha (petroleum), medium aliphatic 64742-88-7 | 96h EC50 Pseudokirchneriella subcapitata: 450 mg/L |
| Methyl ethyl ketoxime 96-29-7 | 72h EC50 Desmodesmus subspicatus: 83 mg/L |
| Ethyl benzene (constituent) 100-41-4 | 96h EC50 Pseudokirchneriella subcapitata: 1.7 - 7.6 mg/L [static] 72h EC50 Pseudokirchneriella subcapitata: 2.6 - 11.3 mg/L [static] 72h EC50 Pseudokirchneriella subcapitata: 4.6 mg/L 96h EC50 Pseudokirchneriella subcapitata: >438 mg/L |

| Component | Fish |
|---|---|
| Solvent naphtha (petroleum), medium aliphatic 64742-88-7 | 96h LC50 Pimephales promelas: 800 mg/L [static] |
| Methyl ethyl ketoxime 96-29-7 | 96h LC50 Leuciscus idus: 320 - 1000 mg/L [static] 96h LC50 Pimephales promelas: 777 - 914 mg/L [[flow-through]] 96h LC50 Poecilia reticulata: 760 mg/L [static] |
| Ethyl benzene (constituent) 100-41-4 | 96h LC50 Oncorhynchus mykiss: 11.0 - 18.0 mg/L [static] 96h LC50 Pimephales promelas: 7.55 - 11 mg/L [flow-through] 96h LC50 Pimephales promelas: 9.1 - 15.6 mg/L [static] 96h LC50 Lepomis macrochirus: 32 mg/L [static] 96h LC50 Oncorhynchus mykiss: 4.2 mg/L [semi-static] 96h LC50 Poecilia reticulata: 9.6 mg/L [static] |

| Component | Crustacea |
|---|--|
| Solvent naphtha (petroleum), medium aliphatic 64742-88-7 | 48h EC50 Daphnia magna: >100 mg/L |
| Methyl ethyl ketoxime 96-29-7 | 48h EC50 Daphnia magna: 750 mg/L |
| Ethyl benzene (constituent) 100-41-4 | 48h EC50 Daphnia magna: 1.8 - 2.4 mg/L |

Persistence and Degradability

No information available.

Bioaccumulation

No information available.

| Component | Partition coefficient |
|---|-----------------------|
| Xylenes (o-, m-, p- isomers) 1330-20-7 | 2.96 |
| Methyl ethyl ketoxime 96-29-7 | 0.65 |
| Ethyl benzene (constituent) 100-41-4 | 3.118 |

Other adverse effects

No information available

13. DISPOSAL CONSIDERATIONS

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

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].

| | |
|-----------------------------|--------------|
| UN/ID no. | UN1210 |
| Proper Shipping Name | Printing Ink |
| Hazard Class | 3 |
| Packing Group | III |

ICAO / IATA / IMDG / IMO

| | |
|-----------------------------|--------------|
| UN/ID no. | UN1210 |
| Proper Shipping Name | Printing Ink |
| Hazard Class | 3 |
| Packing Group | 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 |
|------------------------------|-----------|----------|-----------------------------|
| Xylenes (o-, m-, p- isomers) | 1330-20-7 | 1 - 5 | 1.0 |
| Ethyl benzene (constituent) | 100-41-4 | < 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:

| Component | CAS-No | Weight % |
|------------------------------|-----------|----------|
| Xylenes (o-, m-, p- isomers) | 1330-20-7 | 1 - 5 |

U.S. State Regulations

| Component | Massachusetts Right To Know |
|---|-----------------------------|
| Stoddard solvent 8052-41-3 | X |
| Xylenes (o-, m-, p- isomers) 1330-20-7 | X |
| Ethyl benzene (constituent) 100-41-4 | X |

| Component | Minnesota Right To Know |
|---|-------------------------|
| Stoddard solvent 8052-41-3 | X |
| Xylenes (o-, m-, p- isomers) 1330-20-7 | X |
| Methyl ethyl ketoxime 96-29-7 | X |

| | |
|---|---|
| Calcium stearate 1592-23-0 | X |
| Ethyl benzene (constituent) 100-41-4 | X |

| Component | New Jersey Right To Know |
|---|-----------------------------|
| Stoddard solvent 8052-41-3 | X |
| Solvent naphtha (petroleum), medium aliphatic 64742-88-7 | X |
| Xylenes (o-, m-, p- isomers) 1330-20-7 | X |
| Ethyl benzene (constituent) 100-41-4 | X |
| Cobalt Compounds | X |

| Component | Pennsylvania Right To Know |
|---|-------------------------------|
| Stoddard solvent 8052-41-3 | X |
| Xylenes (o-, m-, p- isomers) 1330-20-7 | X |
| Ethyl benzene (constituent) 100-41-4 | X |
| Cobalt Compounds | 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 |
|-----------------------------|---------------------|
| Ethyl benzene (constituent) | Carcinogen |

Canada

| Component | NPRI - National Pollutant Release Inventory |
|---|---|
| Stoddard solvent 8052-41-3 | Part 5, Other Groups and Mixtures |
| Solvent naphtha (petroleum), medium aliphatic 64742-88-7 | Part 5, Other Groups and Mixtures |
| Xylenes (o-, m-, p- isomers) 1330-20-7 | Part 1, Group A Substance total of all isomers of Xylene, including m-Xylene, CAS No. 108-38-3, o-Xylene, CAS No. 95-47-6, and p-Xylene, CAS No. 106-42-3 Part 5, Isomer Groups total of all isomers of Xylene, including m-Xylene, CAS No. 108-38-3, o-Xylene, CAS No. 95-47-6, and p-Xylene, CAS No. 106-42-3 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 |
| Ethyl benzene (constituent) 100-41-4 | 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 |
| Cobalt Compounds | Part 1, Group A Substance total of the pure element and the equivalent weight of the element contained in any compound, alloy or mixture |

16. OTHER INFORMATION

| | | | | |
|--------------|---------------|---------------------|-------------------|----------------------------|
| HMIS: | Health | Flammability | Reactivity | Personal Protection |
| | 1 * | 2 | 0 | X |

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

Legend - Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

TWA 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