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60630

**SunChemical**<sup>®</sup>  
a member of the DIC group 

RECOGNITION SYSTEMS INC.  
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December 15, 2017

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# SAFETY DATA SHEET

## Section 1. Identification

**Product code** : SP-132  
**GHS product identifier** : StarDot KS Process Magenta

### Relevant identified uses of the substance or mixture and uses advised against

#### Identified uses

Colorant; Printing ink related material; Printing ink.

**Manufacturer / Distributor** : Sun Chemical Corporation  
North American Inks  
135 West Lake Street  
Northlake, IL 60164  
US: +1 708 236 3798

**Emergency telephone number (with hours of operation)** : +1 (800) 424-9300 (U.S.) (24 hours)  
+1 (703) 527-3887 (International) (24 hours)  
**Other information** : +1 708 236 3798

## Section 2. Hazards identification

**OSHA/HCS status** : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).  
**Classification of the substance or mixture** : EYE IRRITATION - Category 2A  
TOXIC TO REPRODUCTION (Fertility) - Category 2  
TOXIC TO REPRODUCTION (Unborn child) - Category 2

### GHS label elements

**Hazard pictograms** :



**Signal word** : Warning

**Hazard statements** : Causes serious eye irritation. Suspected of damaging fertility or the unborn child.

### Precautionary statements

**Prevention** : Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves. Wear eye or face protection. Wear protective clothing. Wash hands thoroughly after handling.

**Response** : IF exposed or concerned: Get medical attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention.

**Storage** : Store locked up.

**Disposal** : Dispose of contents and container in accordance with all local, regional, national and international regulations.

**Hazards not otherwise classified** : None known.

## Section 3. Composition/information on ingredients

Substance/mixture : Mixture

### CAS number/other identifiers

| Ingredient name                                   | CAS number | %       |
|---|------------|---------|
| Maleic Modified Pentaerythritol Ester of Rosin    | 68333-69-7 | 10 - 20 |
| Severely Hydrotreated Light Naphthenic Distillate | 64742-53-6 | 5 - 10  |
| Technical White Oil                               | 8042-47-5  | 5 - 10  |
| Hydrotreated Middle Distillate                    | 64742-46-7 | 2.5 - 5 |
| Neodecanoic Acid, Manganese Salt                  | 27253-32-3 | 2.5 - 5 |
| 2-ETHYL HEXANOIC ACID, Mn Salt                    | 15956-58-8 | < 1     |

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

**There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.**

Occupational exposure limits, if available, are listed in Section 8.

## Section 4. First aid measures

### Description of necessary first aid measures

- Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- Skin contact** : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Continue to rinse for at least 10 minutes. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

### Most important symptoms/effects, acute and delayed

#### Potential acute health effects

- Eye contact** : Causes serious eye irritation.
- Inhalation** : No known significant effects or critical hazards.
- Skin contact** : No known significant effects or critical hazards.
- Ingestion** : No known significant effects or critical hazards.

### Indication of immediate medical attention and special treatment needed, if necessary

- Notes to physician** : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- Specific treatments** : No specific treatment.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

## Section 4. First aid measures

See toxicological information (Section 11)

## Section 5. Fire-fighting measures

### Extinguishing media

**Suitable extinguishing media** : Use dry chemical, CO<sub>2</sub>, water spray (fog) or foam.

**Unsuitable extinguishing media** : Do not use water jet.

**Specific hazards arising from the chemical** : In a fire or if heated, a pressure increase will occur and the container may burst.

**Hazardous thermal decomposition products** : Decomposition products may include the following materials:  
carbon dioxide  
carbon monoxide  
nitrogen oxides  
sulfur oxides  
halogenated compounds  
metal oxide/oxides

**Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

**Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

**Remarks** :

## Section 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures

**For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

**For emergency responders** : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

**Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

### Methods and materials for containment and cleaning up

**Small spill** : Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

**Large spill** : Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

## Section 7. Handling and storage

### Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapor or mist. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
- Conditions for safe storage, including any incompatibilities** : Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.
- Remarks:** : Materials such as cleaning rags, paper wipes and protective clothing, which are contaminated with the product may spontaneously self-ignite some hours later. To avoid the risks of fires, all contaminated materials should be stored in purpose-built containers or in metal containers with tight-fitting, self-closing lids. Contaminated materials should be removed from the workplace at the end of each working day and be stored outside. (Linseed oil)

## Section 8. Exposure controls/personal protection

### Control parameters

#### Occupational exposure limits

| Ingredient name                                   | Exposure limits  |
|---|--|
| Severely Hydrotreated Light Naphthenic Distillate | <b>ACGIH TLV (United States, 3/2016).</b><br>TWA: 5 mg/m <sup>3</sup> 8 hours. Form: Inhalable fraction  |
| Technical White Oil                               | <b>OSHA PEL (United States, 6/2016).</b><br>TWA: 5 mg/m <sup>3</sup> 8 hours.<br><b>ACGIH TLV (United States, 3/2016).</b><br>TWA: 5 mg/m <sup>3</sup> 8 hours. Form: Inhalable fraction<br><b>OSHA PEL (United States, 6/2016).</b><br>TWA: 5 mg/m <sup>3</sup> 8 hours.  |
| Neodecanoic Acid, Manganese Salt                  | <b>ACGIH TLV (United States, 3/2016).</b><br>TWA: 0.1 mg/m <sup>3</sup> , (as Mn) 8 hours. Form: Inhalable fraction<br><b>ACGIH TLV (United States, 3/2016). Notes: as Mn</b><br>TWA: 0.02 mg/m <sup>3</sup> , (as Mn) 8 hours. Form: Respirable fraction<br><b>OSHA PEL (United States, 6/2016). Notes: as Mn</b><br>CEIL: 5 mg/m <sup>3</sup> , (as Mn)<br><b>OSHA PEL 1989 (United States, 3/1989). Notes: as Mn</b><br>CEIL: 5 mg/m <sup>3</sup> , (as Mn) |
| 2-ETHYL HEXANOIC ACID, Mn Salt                    | <b>ACGIH TLV (United States, 3/2016).</b><br>TWA: 0.1 mg/m <sup>3</sup> , (as Mn) 8 hours. Form: Inhalable fraction  |

## Section 8. Exposure controls/personal protection

**ACGIH TLV (United States, 3/2016). Notes: as Mn**

TWA: 0.02 mg/m<sup>3</sup>, (as Mn) 8 hours. Form: Respirable fraction

**OSHA PEL (United States, 6/2016). Notes: as Mn**

CEIL: 5 mg/m<sup>3</sup>, (as Mn)

**OSHA PEL 1989 (United States, 3/1989).**

**Notes: as Mn**

CEIL: 5 mg/m<sup>3</sup>, (as Mn)

**Appropriate engineering controls** : If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

**Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

### Individual protection measures

**Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

**Eye/face protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.

### Skin protection

**Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

**Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

**Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

**Respiratory protection** : In case of inadequate ventilation wear respiratory protection. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary.

## Section 9. Physical and chemical properties

### Appearance

**Physical state** : Liquid.

**Color** : Red.

**Odor** : Characteristic.

**Odor threshold** : Not applicable.

**pH** : Not tested

**Melting point** : Not available.

## Section 9. Physical and chemical properties

|   |   |
|---|---|
| <b>Boiling point</b>                                | : Lowest known value: 172°C (342°F)   |
| <b>Flash point</b>                                  | : Lowest known value: >93.3°C (200°F)   |
| <b>VOC % (w/w)</b>                                  | : 22.3  |
| <b>Evaporation rate</b>                             | : Highest known value: <1 (Linseed oil) Weighted average: 0.9 compared with butyl acetate |
| <b>Flammability (solid, gas)</b>                    | : Not available.  |
| <b>Lower and upper explosive (flammable) limits</b> | : Not tested  |
| <b>Vapor pressure</b>                               | : Not available.  |
| <b>Vapor density</b>                                | : Not tested  |
| <b>Density</b>                                      | : 1.019 g/cm <sup>3</sup> (8.505 lbs/gal)   |
| <b>Solubility</b>                                   | : Not tested  |
| <b>Partition coefficient: n-octanol/water</b>       | : Not applicable.   |
| <b>Auto-ignition temperature</b>                    | : Not applicable.   |
| <b>Decomposition temperature</b>                    | : Not applicable.   |
| <b>Viscosity</b>                                    | : Kinematic (40°C): >0.205 cm <sup>2</sup> /s (>20.5 cSt)                                 |

## Section 10. Stability and reactivity

|   |  |
|---|--|
| <b>Reactivity</b>                         | : No specific test data related to reactivity available for this product or its ingredients.           |
| <b>Chemical stability</b>                 | : The product is stable.   |
| <b>Possibility of hazardous reactions</b> | : Under normal conditions of storage and use, hazardous reactions will not occur.                      |
| <b>Conditions to avoid</b>                | : No specific data.  |
| <b>Incompatible materials</b>             | : No specific data.  |
| <b>Hazardous decomposition products</b>   | : Under normal conditions of storage and use, hazardous decomposition products should not be produced. |

## Section 11. Toxicological information

### Information on toxicological effects

#### Acute toxicity

**Conclusion/Summary** : No known significant effects or critical hazards.

#### Irritation/Corrosion

##### Conclusion/Summary

**Skin** : No known significant effects or critical hazards.

**Eyes** : No known significant effects or critical hazards.

**Respiratory** : No known significant effects or critical hazards.

#### Sensitization

##### Conclusion/Summary

**Skin** : No known significant effects or critical hazards.

**Respiratory** : No known significant effects or critical hazards.

#### Mutagenicity

**Conclusion/Summary** : No known significant effects or critical hazards.

#### Carcinogenicity



## Section 11. Toxicological information

**Conclusion/Summary** : No known significant effects or critical hazards.

### Reproductive toxicity

**Conclusion/Summary** :

### Teratogenicity

**Conclusion/Summary** : No known significant effects or critical hazards.

### Specific target organ toxicity (single exposure)

Not available.

### Specific target organ toxicity (repeated exposure)

| Name                           | Category   | Route of exposure | Target organs  |
|--------------------------------|------------|-------------------|----------------|
| 2-ETHYL HEXANOIC ACID, Mn Salt | Category 2 | Inhalation        | Not determined |

### Aspiration hazard

| Name   | Result   |
|--|--|
| Severely Hydrotreated Light Naphthenic Distillate<br>Technical White Oil<br>Hydrotreated Middle Distillate | ASPIRATION HAZARD - Category 1<br>ASPIRATION HAZARD - Category 1<br>ASPIRATION HAZARD - Category 1 |

**Information on the likely routes of exposure** : Not available.

### Potential acute health effects

**Eye contact** : Causes serious eye irritation.  
**Inhalation** : No known significant effects or critical hazards.  
**Skin contact** : No known significant effects or critical hazards.  
**Ingestion** : No known significant effects or critical hazards.

### Symptoms related to the physical, chemical and toxicological characteristics

**Eye contact** : Adverse symptoms may include the following:  
 pain or irritation  
 watering  
 redness

**Inhalation** : Adverse symptoms may include the following:  
 reduced fetal weight  
 increase in fetal deaths  
 skeletal malformations

**Skin contact** : Adverse symptoms may include the following:  
 reduced fetal weight  
 increase in fetal deaths  
 skeletal malformations

**Ingestion** : Adverse symptoms may include the following:  
 reduced fetal weight  
 increase in fetal deaths  
 skeletal malformations

### Delayed and immediate effects and also chronic effects from short and long term exposure

#### Short term exposure

**Potential immediate effects** : Not available.

**Potential delayed effects** : Not available.

#### Long term exposure

**Potential immediate effects** : Not available.

**Potential delayed effects** : Not available.

## Section 11. Toxicological information

### Potential chronic health effects

|                              |   |
|------------------------------|---|
| <b>General</b>               | : No known significant effects or critical hazards. |
| <b>Carcinogenicity</b>       | : No known significant effects or critical hazards. |
| <b>Mutagenicity</b>          | : No known significant effects or critical hazards. |
| <b>Teratogenicity</b>        | : Suspected of damaging the unborn child.           |
| <b>Developmental effects</b> | : No known significant effects or critical hazards. |
| <b>Fertility effects</b>     | : Suspected of damaging fertility.                  |

### Numerical measures of toxicity

#### Acute toxicity estimates

| Route | ATE value     |
|-------|---------------|
| Oral  | 15110.3 mg/kg |

## Section 12. Ecological information

### Toxicity

Not available.

### Persistence and degradability

Not available.

### Bioaccumulative potential

| Product/ingredient name | LogP <sub>ow</sub> | BCF | Potential |
|-------------------------|--------------------|-----|-----------|
| Technical White Oil     | >6                 | -   | high      |

### Mobility in soil

**Soil/water partition coefficient (K<sub>oc</sub>)** : Not available.

**Other adverse effects** : No known significant effects or critical hazards.

## Section 13. Disposal considerations

**Disposal methods** : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

## Section 14. Transport information

|                               | DOT<br>Classification | TDG<br>Classification | Mexico<br>Classification | IMDG           | IATA           |
|-------------------------------|-----------------------|-----------------------|--------------------------|----------------|----------------|
| UN number                     |                       |                       |                          |                |                |
| UN proper<br>shipping name    |                       |                       |                          |                |                |
| Transport<br>hazard class(es) | Not regulated.        | Not regulated.        | Not regulated.           | Not regulated. | Not regulated. |
| Packing group                 | -                     | -                     | -                        | -              | -              |
| Environmental<br>hazards      | No.                   | No.                   | No.                      | No.            | No.            |
| Additional<br>information     | -                     | -                     | -                        | -              | -              |

**Special precautions for user** : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

## Section 15. Regulatory information

**TSCA 8(b) inventory** : Listed

**U.S. Federal regulations** : **TSCA 4(a) final test rules:** Polytetrafluoroethylene  
**TSCA 12(b) one-time export:** Polytetrafluoroethylene  
**Clean Water Act (CWA) 307:** benzene  
**Clean Water Act (CWA) 311:** benzene

### SARA 313

|                              | Product name        | CAS number | %   |
|------------------------------|---------------------|------------|-----|
| <b>Supplier notification</b> | Manganese Compounds | 27253-32-3 | 2.5 |

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

**Toxics in Packaging (CONEG)** : In compliance.

**Canada inventory** : At least one component is not listed in DSL but all such components are listed in NDSL.

### International regulations

**International lists** :

- Australia inventory (AICS):** At least one component is not listed.
- China inventory (IECSC):** At least one component is not listed.
- Japan inventory (ENCS):** At least one component is not listed.
- Korea inventory:** At least one component is not listed.
- Malaysia Inventory (EHS Register):** Not determined.
- New Zealand Inventory of Chemicals (NZIoC):** At least one component is not listed.
- Philippines inventory (PICCS):** At least one component is not listed.
- Taiwan Chemical Substances Inventory (TCSI):** Not determined.
- Turkey inventory:** Not determined.
- Europe Inventory:** Please contact your supplier to get the information.

## Section 16. Other information

### National Fire Protection Association (U.S.A.)



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Copyright ©2001, National Fire Protection Association, Quincy, MA 02269. This warning system is intended to be interpreted and applied only by properly trained individuals to identify fire, health and reactivity hazards of chemicals. The user is referred to certain limited number of chemicals with recommended classifications in NFPA 49 and NFPA 325, which would be used as a guideline only. Whether the chemicals are classified by NFPA or not, anyone using the 704 systems to classify chemicals does so at their own risk.

#### History

|                                |  |
|--------------------------------|--|
| Date of issue/Date of revision | : 8/30/2017  |
| Date of previous issue         | : No previous validation   |
| Version                        | : 0.01   |
| Key to abbreviations           | : ATE = Acute Toxicity Estimate<br>BCF = Bioconcentration Factor<br>GHS = Globally Harmonized System of Classification and Labelling of Chemicals<br>IATA = International Air Transport Association<br>IBC = Intermediate Bulk Container<br>IMDG = International Maritime Dangerous Goods<br>LogPow = logarithm of the octanol/water partition coefficient<br>MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)<br>UN = United Nations |

**References** : Not available.

Indicates information that has changed from previously issued version.

#### Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

SP-132

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## VOLATILE COMPONENT INFORMATION

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|   | US EPA<br>Designate |
|---|---------------------|
| A. Product Density:   |                     |
| 1.) 1.019 g/cm <sup>3</sup> (8.505 lbs/gal)   | =(Dc)s              |
| B. Nonvolatile Content:   |                     |
| 1.) 77.7 Weight percent of nonvolatiles in product  | =(Wn)s              |
| 2.) 73.7 Volume percent of nonvolatiles in product  | =(Vn)s              |
| 3.) 8.96 Density, lb nonvolatiles/gal nonvolatiles  | =(Dn)s              |
| C. Volatiles:   |                     |
| 1.) 22.3 Weight percent of total volatiles in product   | =(Wv)s              |
| 2.) 7.22 Density, lb volatiles/gal volatiles  | =(Dv)s              |
| D. Water Content:   |                     |
| 1.) 0.0 Weight percent of water in product  | =(Ww)s              |
| 2.) 0.0 Volume percent of water in product  | =(Vw)s              |
| E. Volatile Organic Compounds, (VOCs):  |                     |
| 1.) 22.3 Weight percent of organic volatiles in product   | =(Wo)s              |
| 2.) 26.3 Volume percent of organic volatiles in product   | =(Vo)s              |
| 3.) 7.21 Density, lb organic volatiles/gal organic volatiles                                    | =(Do)s              |
| 4.) 100.0 Weight percent of VOCs in total volatiles   | =(Wo)v              |
| 5.) 100.0 Volume percent of VOCs in total volatiles   | =(Vo)v              |
| F. VOC Content in Product Expressed in Other Terms:   |                     |
| 1.) a.) 1.9 lb VOC / gal Product  |                     |
| 1.) b.) 227.28 grams VOC / liter Product  |                     |
| 2.) a.) 1.9 lb VOC / gal Product less water & exempt solvent                                    |                     |
| 2.) b.) 227.3 grams VOC / liter Product less water & exempt solvent                             |                     |
| 2.) c.) 22.3 Weight percent of organic volatiles (VOC) in Product less water & exempt solvents. |                     |
| 3.) 2.6 lb VOC / gal total nonvolatiles   |                     |

## G. Volatiles

| Ingredient  | CAS number      | % by weight | Density (lb/gal) |
|---|-----------------|-------------|------------------|
| 1.) Hazardous Air Pollutants VOCs (HAPs)                          |                 |             |                  |
| Glycol Ethers   | Not applicable. | 0.0         | 8.63             |
| 2.) Other VOCs (Non-HAPs)   |                 |             |                  |
| Technical White Oil   | 8042-47-5       | 6.9         | 6.76             |
| Hydrotreated Middle Distillate                                    | 64742-46-7      | 4.4         | 7.17             |
| 2,2,4-tri-Methyl-1,3-Pentanediol Di-isobutyrate                   | 6846-50-0       | 4.0         | 7.87             |
| 2-butoxyethanol   | 111-76-2        | 0.2         | 7.53             |
| Severely Hydrotreated Light Naphthenic Distillate                 | 64742-53-6      | 6.5         | 7.37             |
| Soybean Oil Alkyd   | 67700-65-6      | 0.2         | 8.39             |
| 3.) water   | 7732-18-5       | 0.0         | 8.34             |
| 4.) Ammonia (reported as CAS# 7664-41-7; includes CAS# 1336-21-6) | 7664-41-7       | 0.0         | 5.99             |
| 5.) Other Non-VOC, Non-HAP Volatiles                              |                 | 0.0         |                  |

NOTE: The term Volatile Organic Compounds (VOC) refers only to volatile organic materials as defined by the US EPA and does not include water, ammonia, acetone or other exempt solvents. Unless otherwise stated, the VOC values reported above are based on materials of construction.