Sun Chemical Corporation 782 29th Avenue S.E.



Minneapolis USA MN 55414

RECOGNITION SYSTEMS INC. 30 HARBOR PARK DRIVE PORT WASHINGTON, NY 11050 USA

October 06, 2017

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SAFETY DATA SHEET

Section 1. Identification

Product code: SP-522GHS product identifier: StarDot Elite 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	: +1 (800) 424-9300 (U.S.) (24 hours) +1 (703) 527-3887 (International) (24	

number (with hours of operation)	+1 (703) 527-3887 (International) (24 hours)
Other information	: +1 708 236 3798

Section 2. Hazards identification

OSHA/HCS status	: While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.
Classification of the substance or mixture	: Not classified.
GHS label elements	
Signal word	: No signal word.
Hazard statements	: No known significant effects or critical hazards.
Precautionary statements	
Prevention	: Not applicable.
Response	: Not applicable.
Storage	: Not applicable.
Disposal	: Not applicable.
Hazards not otherwise classified	: None known.

Section 3. Composition/information on ingredients

Substance/mixture

: Mixture

CAS number/other identifiers

Ingredient name	CAS number	%
2-tert-butylhydroquinone	1948-33-0	< 1

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

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Section 3. Composition/information on ingredients

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. Get medical attention if irritation occurs.
Inhalation	: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur. 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. Get medical attention if symptoms occur.
Ingestion	: Wash out mouth with water. 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. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact	: No known significant effects or critical hazards.
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.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media	
Suitable extinguishing media	: Use dry chemical, CO ₂ , 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 metal oxide/oxides

Section 5. Fire-fighting measures

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, protec	ive 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. 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 co	ntainment 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. 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. 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 Advice on general occupational hygiene	: Ea hai drii ent	t on appropriate personal protective equipment (see Section 8). ting, drinking and smoking should be prohibited in areas where this material is ndled, stored and processed. Workers should wash hands and face before eating, nking and smoking. Remove contaminated clothing and protective equipment before tering eating areas. See also Section 8 for additional information on hygiene easures.
Conditions for safe storage, including any incompatibilities	dire (se rea upi	bre in accordance with local regulations. Store in original container protected from ect sunlight in a dry, cool and well-ventilated area, away from incompatible materials be Section 10) and food and drink. Keep container tightly closed and sealed until ady for use. Containers that have been opened must be carefully resealed and kept right to prevent leakage. Do not store in unlabeled containers. Use appropriate intainment to avoid environmental contamination.
Remarks:	cor the or be	terials such as cleaning rags, paper wipes and protective clothing, which are ntaminated with the product may spontaneously self-ignite some hours later. To avoid e risks of fires, all contaminated materials should be stored in purpose-built containers in metal containers with tight-fitting, self-closing lids. Contaminated materials should removed from the workplace at the end of each working day and be stored outside. bybean oil)

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

None.

Appropriate engineering controls Environmental exposure controls	 Good general ventilation should be sufficient to control worker exposure to airborne contaminants. 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 measure	<u>25</u>
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: safety glasses with side-shields.
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.
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

<u>Appearance</u>	
Physical state	: Liquid.
Color	: Red.
Odor	: Characteristic.
Odor threshold	: Not applicable.
рН	: Not tested
Melting point	: Not available.
Boiling point	: Lowest known value: 288°C (550°F)
Flash point	: Lowest known value: >93.3°C (200°F)
VOC % (w/w)	: 0
Evaporation rate	 Highest known value: <1 (Soybean oil) Weighted average: 0.9compared with butyl acetate
Flammability (solid, gas)	: Not available.
Lower and upper explosive (flammable) limits	: Not tested

Section 9. Physical and chemical properties

Vapor pressure	: Not available.
Vapor density	: Not tested
Density	: 1.087 g/cm ³ (9.068 lbs/gal)
Solubility	: Not tested
Partition coefficient: n- octanol/water	: Not applicable.
Auto-ignition temperature	: Not applicable.
Decomposition temperature	: Not applicable.
Viscosity	: Not tested

Section 10. Stability and reactivity

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

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
2-tert-butylhydroquinone	LD50 Oral	Rat	700 mg/kg	-
Conclusion/Summary	: No known significant effects or	critical hazards.		
rritation/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.		
<u>Sensitization</u>				
Conclusion/Summary				
Skin	: No known significant effects or	critical hazards.		
Respiratory	: No known significant effects or	critical hazards.		
<u>Mutagenicity</u>				
Conclusion/Summary	: No known significant effects or	critical hazards.		
<u>Carcinogenicity</u>				
Conclusion/Summary	: No known significant effects or	critical hazards.		
Reproductive toxicity				
Conclusion/Summary	:			
<u>Teratogenicity</u>				
Conclusion/Summary	: No known significant effects or	critical hazards.		

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Section 11. Toxicological information

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on the likely routes of exposure	:	Not available.
Potential acute health effects		
Eye contact	:	No known significant effects or critical hazards.
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	: No specific data.
Inhalation	: No specific data.
Skin contact	: No specific data.
Ingestion	: No specific data.

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.
<u>Long term exposure</u>	
Potential immediate effects	: Not available.
Potential delayed effects	: Not available.
•	
Potential chronic health effe	<u>icts</u>
General	: No known significant effects or critical hazards.
Carcinogenicity	: No known significant effects or critical hazards.
Mutagenicity	: No known significant effects or critical hazards.
Teratogenicity	: No known significant effects or critical hazards.
Developmental effects	: No known significant effects or critical hazards.
Fertility effects	: No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Not available.

Section 12. Ecological information

Toxicity

Not available.

Persistence and degradability

Not available.

Bioaccumulative potential

Not available.

Mobility in soil

Soil/water partition	: Not available.
coefficient (Koc)	

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. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.
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Section 14. Transport information

	DOT Classification	TDG Classification	Mexico Classification	IMDG	ΙΑΤΑ
UN number					
UN proper shipping name					
Transport hazard class(es)	Not regulated.	Not regulated.	Not regulated.	Not regulated.	Not regulated.
Packing group	-	-	-	-	-
Environmental hazards	No.	No.	No.	No.	No.
Additional 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 U.S. Federal regulations : Listed

: Clean Water Act (CWA) 311: formaldehyde

SARA 313

	Product name	CAS number	%
Supplier notification	None identified.		
Toxics in Packaging (CONEG)	: In compliance.		
Canada inventory	: All components are listed or exempted.		
International regulations			
International lists	: Australia inventory (AICS): At least one China inventory (IECSC): All componen Japan inventory (ENCS): All componen Korea inventory: All components are lis Malaysia Inventory (EHS Register): No New Zealand Inventory of Chemicals Philippines inventory (PICCS): Not det Taiwan Chemical Substances Invento Turkey inventory: Not determined.	nts are listed or exempted. Its are listed or exempted. Ited or exempted. It determined. (NZIOC): At least one comp termined.	
	Europe Inventory: Please contact your	supplier to get the informat	ion.

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.

<u>nistory</u>

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 BCF = Bioconcentration Factor GHS = Globally Harmonized System of Classification and Labelling of Chemicals IATA = International Air Transport Association IBC = International Air Transport Association IMDG = International Maritime Dangerous Goods LogPow = logarithm of the octanol/water partition coefficient MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution) UN = United Nations
References	: Not available.
Indicator information th	at has abanged from providually issued version

Indicates information that has changed from previously issued version.

Section 16. Other information

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-522

VOLATILE COMPONENT INFORMATION

		US EPA Designate
A. Product D	ensity:	
1.) 1.087 g/cm ³ (9.068 lbs/gal)		
B. Nonvolatil	o Contont:	
1.)	100.0 Weight percent of nonvolatiles in product	=(Wn)s
2.)	100.0 Volume percent of nonvolatiles in product	. ,
2.) 3.)	9.06 Density, lb nonvolatiles/gal nonvolatiles	=(Vn)s
3.)	9.00 Density, ib honvolatiles/gai honvolatiles	=(Dn)s
C. Volatiles:		
1.)	0.0 Weight percent of total volatiles in product	=(Wv)s
2.)	0 Density, lb volatiles/gal volatiles	=(Dv)s
D. Water Co		
1.)	0.0 Weight percent of water in product	=(Ww)s
2.)	0.0 Volume percent of water in product	=(Vw)s
E. Volatile O	rganic Compounds, (VOCs):	
1.)	0.0 Weight percent of organic volatiles in product	=(Wo)s
2.)	0.0 Volume percent of organic volatiles in product	=(Vo)s
3.)	0 Density, lb organic volatiles/gal organic volatiles	=(Do)s
4.)	0.0 Weight percent of VOCs in total volatiles	=(Wo)v
5.)	0.0 Volume percent of VOCs in total volatiles	=(Vo)v
	hant in Draduct Europeand in Other Terran	
	tent in Product Expressed in Other Terms:	
1.) a.)	0.0 lb VOC / gal Product	
1.) b.)	0 grams VOC / liter Product	
2.) a.)	0.0 lb VOC / gal Product less water & exempt solvent	
2.) b.)	0 grams VOC / liter Product less water & exempt solvent	
2.) c.)	0.0 Weight percent of organic volatiles (VOC) in Product less water & exempt solvents.	
3.)	0.0 lb VOC / gal total nonvolatiles	

G. Volatiles						
Ingredient	CAS number	% by weight Density (lb/gal)				
 Hazardous Air Pollutants VOCs (HAPs) Other VOCs (Non-HAPs) 		0.0				
3.) Water	7732-18-5	0.0				
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.