

SAFETY DATA SHEET

Published Date Mar-05-2019 Revision Date Mar-05-2019 Revision Number 2

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

Product identifier Product code

Product name

Product category

60033557S2 Special S2 Saddle Tan On Blue System 2 Series SV Vinyl Screen Ink

Other means of identification Synonyms

Recommended use of the chemical and restrictions on useRecommended usePrinting operations

None

Details of the supplier of the safety data sheet

UNITED STATES Nazdar Company 8501 Hedge Lane Terrace Shawnee, KS 66227 Tel: +001-913-422-1888 Tel: +001-800-677-4657 Fax: +001-913-422-2294 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: +001-800-424-9300 Outside USA: Chemtrec: +001-703-527-3887 24 Hour Emergency Phone Number

2. HAZARDS IDENTIFICATION

Classification

Skin Corrosion/irritation	Category 2 - (H315)
Serious eye damage/eye irritation	Category 1 - (H318)
Flammable liquids	Category 3 - (H226)

Label elements



Danger

Hazard Statements

H315 - Causes skin irritation H318 - Causes serious eye damage H226 - Flammable liquid and vapor

Precautionary Statements

P264 - Wash face, hands and any exposed skin thoroughly after handling

P332 + P313 - If skin irritation occurs: Get medical advice/attention

P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

P233 - Keep container tightly closed

P280 - Wear protective gloves/protective clothing/eye protection/face protection

P403 + P235 - Store in a well-ventilated place. Keep cool

P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking

Hazards not otherwise classified (HNOC)

No information available.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Mixture

Component	CAS-No	Weight %	Trade Secret	Note
Ethylene glycol monopropyl ether	2807-30-9	30 - 60	*	
Cyclohexanone	108-94-1	10 - 30	*	
Diethylene glycol ethyl ether acetate	112-15-2	1 - 5	*	
Titanium dioxide	13463-67-7	1 - 5	*	
Silicon dioxide, amorphous	7631-86-9	1 - 5	*	
Carbon black	1333-86-4	< 0.5	*	
Ethyl alcohol	64-17-5	< 0.5	*	

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

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				
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
Cyclohexanone	TWA: 20 ppm
108-94-1	STEL: 50 ppm
	Skin
Titanium dioxide	TWA: 10 mg/m ³
13463-67-7	
Carbon black	TWA: 3 mg/m ³ inhalable particulate matter
1333-86-4	
Ethyl alcohol	STEL: 1000 ppm
64-17-5	

Component	OSHA PEL	
Cyclohexanone	TWA: 50 ppm	
108-94-1	TWA: 200 mg/m ³	
Titanium dioxide 13463-67-7	TWA: 15 mg/m³ total dust	
Carbon black 1333-86-4	TWA: 3.5 mg/m ³	
Ethyl alcohol	TWA: 1000 ppm	
64-17-5	TWA: 1900 mg/m ³	

Component OSH	HA PEL (vacated)
Cyclohexanone TWA	A: 25 ppm

108-94-1	TWA: 100 mg/m³ Skin
Titanium dioxide 13463-67-7	TWA: 10 mg/m³ total dust
Silicon dioxide, amorphous 7631-86-9	TWA: 6 mg/m ³
Carbon black 1333-86-4	TWA: 3.5 mg/m ³
Ethyl alcohol 64-17-5	TWA: 1000 ppm TWA: 1900 mg/m ³

Component	Ontario TWAEV
Ethylene glycol monopropyl ether	TWA: 25 ppm
2807-30-9	TWA: 110 mg/m ³
	Skin
Cyclohexanone	TWA: 20 ppm
108-94-1	STEL: 50 ppm
	Skin
Titanium dioxide	TWA: 10 mg/m ³
13463-67-7	
Carbon black	TWA: 3 mg/m ³ inhalable
1333-86-4	
Ethyl alcohol	STEL: 1000 ppm
64-17-5	

Component	Mexico OEL (TWA)
Cyclohexanone	TWA/VLE-PPT: 50 ppm
108-94-1	TWA/VLE-PPT: 200 mg/m ³
	STEL/PPT-CT: 100 ppm
	STEL/PPT-CT: 400 mg/m ³
Titanium dioxide	TWA/VLE-PPT: 10 mg/m ³
13463-67-7	STEL/PPT-CT: 20 mg/m ³
Carbon black	TWA/VLE-PPT: 3.5 mg/m ³
1333-86-4	STEL/PPT-CT: 7 mg/m ³
Ethyl alcohol	TWA/VLE-PPT: 1000 ppm
64-17-5	TWA/VLE-PPT: 1900 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 Odor	Liquid No information available	Appearance Odor Threshold	Colored No information available
<u>Property</u> pH Maline Daint (Encoding Daint	<u>Values</u>	Remarks • Method No data available	
Melting Point / Freezing Point Boiling Point / Boiling Range Flash Point	> 149 °C / 300 °F 46 °C / 115 °F	No data available Pensky Martens Clos	ed Cup (PMCC)
Evaporation rate Flammability Limit in Air Upper flammability limit		No data available No data available	
Lower flammability limit Vapor Pressure		No data available No data available	
Vapor Density Specific Gravity Water Solubility	1.09	No data available No data available	
Solubility in other solvents Partition coefficient: n-octanol/water		No data available No data available No data available	
Autoignition Temperature Decomposition temperature Kinematic viscosity		No data available No data available	
Dynamic viscosity		No data available	
Explosive Properties Oxidizing Properties	No data available No data available		
Other Information			
Photochemically Reactive Weight Per Gallon (Ibs/gal)	No 9.06		
VOC by weight % (less water) 54.33	VOC by volume % (less water) 58.08	VOC lbs/gal (less water) 4.93	VOC grams/liter (less water) 590.24

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	Specific test data for the substance or mixture is not available.
Eye Contact	Specific test data for the substance or mixture is not available.
Skin Contact	Specific test data for the substance or mixture is not available.

Ingestion

Specific test data for the substance or mixture is not available.

Component	Oral LD50	
Ethylene glycol monopropyl ether 2807-30-9	= 3089 mg/kg (Rat)	
Cyclohexanone 108-94-1	= 1544 mg/kg (Rat)	
Diethylene glycol ethyl ether acetate 112-15-2	= 11 g/kg (Rat)	
Titanium dioxide 13463-67-7	> 10000 mg/kg (Rat)	
Silicon dioxide, amorphous 7631-86-9	= 7900 mg/kg (Rat)	
Carbon black 1333-86-4	> 15400 mg/kg (Rat)	
Ethyl alcohol 64-17-5	= 7060 mg/kg (Rat)	

Component	Dermal LD50
Ethylene glycol monopropyl ether 2807-30-9	= 870 mg/kg (Rabbit)
Cyclohexanone 108-94-1	= 947 mg/kg (Rabbit)
Diethylene glycol ethyl ether acetate 112-15-2	= 15.1 mL/kg(Rabbit)
Silicon dioxide, amorphous 7631-86-9	> 2000 mg/kg (Rabbit)

Component	Inhalation LC50	
Ethylene glycol monopropyl ether	= 1530 ppm (Rat)7 h	
2807-30-9		
Cyclohexanone	= 8000 ppm (Rat)4 h	
108-94-1		
Silicon dioxide, amorphous	> 2.2 mg/L (Rat)1 h	
7631-86-9		
Ethyl alcohol	= 124.7 mg/L (Rat)4 h	
64-17-5		

Information on toxicological effects

Symptoms

Specific test data for the substance or mixture is not available.

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

Skin corrosion/irritation	Specific test data for the substance or mixture is not available. Causes skin irritation (pain, redness and swelling). (based on components).
Eye damage/irritation	Specific test data for the substance or mixture is not available. Causes serious eye damage. (based on components).
Irritation	Specific test data for the substance or mixture is not available.
Corrosivity	Specific test data for the substance or mixture is not available.
Sensitization	Specific test data for the substance or mixture is not available.
Mutagenic Effects	Specific test data for the substance or mixture is not available.
Carcinogenic effects	Specific test data for the substance or mixture is not available.
Reproductive Effects	Specific test data for the substance or mixture is not available.
STOT - single exposure	Specific test data for the substance or mixture is not available.
STOT - repeated exposure	Specific test data for the substance or mixture is not available.
Chronic Toxicity	Specific test data for the substance or mixture is not available
Aspiration hazard	Specific test data for the substance or mixture is not available.
Carcinogenicity	The table below indicates whether each agency has listed any ingredient as a carcinogen.
Component	ACGIH
Cyclohexanone	A3
108-94-1	
Carbon black	A3
1333-86-4	
Ethyl alcohol	A3
64-17-5	

Component	IARC
Titanium dioxide	Group 2B
13463-67-7	
Carbon black	Group 2B
1333-86-4	
Ethyl alcohol	Group 1
64-17-5	

Component	OSHA
Titanium dioxide 13463-67-7	x
Carbon black 1333-86-4	X
Ethyl alcohol 64-17-5	X

Numerical measures of toxicity - Product Information

Unknown Acute Toxicity

0 % of the mixture consists of ingredient(s) of unknown toxicity

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

ATEmix (oral)	7,931.00 mg/kg
ATEmix (dermal)	2,220.00 mg/kg
ATEmix (inhalation-dust/mist)	7.70 mg/l
ATEmix (inhalation-vapor)	57.00

12. ECOLOGICAL INFORMATION

Ecotoxicity

Specific test data for the substance or mixture is not available.

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

Component	Algae/aquatic plants
Silicon dioxide, amorphous	72h EC50 Pseudokirchneriella subcapitata: = 440 mg/L
7631-86-9	
Component	Fish
Cyclohexanone 108-94-1	96h LC50 Pimephales promelas: 481 - 578 mg/L (flow-through) 96h LC50 Pimephales promelas: = 8.9 mg/L
Silicon dioxide, amorphous 7631-86-9	96h LC50 Brachydanio rerio: = 5000 mg/L (static)
Ethyl alcohol 64-17-5	96h LC50 Oncorhynchus mykiss: 12.0 - 16.0 mL/L (static) 96h LC50 Pimephales promelas: 13400 - 15100 mg/L (flow-through) 96h LC50 Pimephales promelas: > 100 mg/L (static)

Component	Crustacea
Silicon dioxide, amorphous	48h EC50 Ceriodaphnia dubia: = 7600 mg/L
7631-86-9	
Ethyl alcohol	48h LC50 Daphnia magna: 9268 - 14221 mg/L
64-17-5	48h EC50 Daphnia magna: = 2 mg/L Static

Persistence and Degradability

No information available.

Bioaccumulation

No information available

Component	Partition coefficient
	0.86

108-94-1	
Ethyl alcohol	-0.32
64-17-5	

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
Note:	This information is not intended to convey all specific transportation requirements relating to this product. Transportation classifications may vary by container volume and may be influenced by regional or country variations in regulations. Additional transportation information can be found in the specific regulations for your mode of transportation. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material.
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
Ethylene glycol monopropyl ether	2807-30-9	30 - 60	1.0
Diethylene glycol ethyl ether acetate	112-15-2	1 - 5	1.0

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 %
Ethylene glycol monopropyl ether	2807-30-9	30 - 60
Diethylene glycol ethyl ether acetate	112-15-2	1 - 5

U.S. State Regulations

	Massachusetts Right To Know
Cyclohexanone 108-94-1	X
Titanium dioxide 13463-67-7	X
Silicon dioxide, amorphous 7631-86-9	X
Carbon black 1333-86-4	X
Ethyl alcohol 64-17-5	X

	Minnesota Right To Know
Cyclohexanone 108-94-1	X
Titanium dioxide 13463-67-7	X
Silicon dioxide, amorphous 7631-86-9	X
Carbon black 1333-86-4	X
Ethyl alcohol 64-17-5	X

Component	New Jersey Right To Know
Ethylene glycol monopropyl ether 2807-30-9	X
Cyclohexanone 108-94-1	X
Diethylene glycol ethyl ether acetate 112-15-2	X
Titanium dioxide 13463-67-7	X
Carbon black 1333-86-4	X
Ethyl alcohol 64-17-5	x

Component	Pennsylvania Right To Know
Ethylene glycol monopropyl ether 2807-30-9	X
Cyclohexanone 108-94-1	X
Diethylene glycol ethyl ether acetate 112-15-2	X
Titanium dioxide 13463-67-7	X
Silicon dioxide, amorphous 7631-86-9	X
Carbon black 1333-86-4	X
Ethyl alcohol 64-17-5	X

<u>California Prop. 65</u> 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
Titanium dioxide	Carcinogen
Carbon black	Carcinogen
Ethyl alcohol	Carcinogen
	Developmental

- This product contains titanium dioxide in a non-respirable form. Inhalation of titanium dioxide is unlikely to occur from exposure to this product

- This product contains carbon black in a non-respirable form. Inhalation of carbon black is unlikely to occur from exposure to this product

<u>Canada</u>

Component	NPRI - National Pollutant Release Inventory
	Part 5, Other Groups and Mixtures; Part 4 Substance
2807-30-9	
Cyclohexanone	Part 4 Substance
108-94-1	
Diethylene glycol ethyl ether acetate	Part 5, Other Groups and Mixtures; Part 4 Substance
112-15-2	
Ethyl alcohol	Part 5, Individual Substances; Part 4 Substance
64-17-5	

16. OTHER INFORMATION				
HMIS:	Health	Flammability	Reactivity	Personal Protection
	2 *	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)

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

Mar-05-2019

Pursuant to NOM-018-STPS-2015

This information within is considered correct but is not exhaustive and will be used for guidance only, which is based on the current knowledge of the substance or mixture and is applicable to the appropriate safety precautions for the product.

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 Safety Data Sheet