

SAFETY DATA SHEET

Print Date May-30-2015 Revision Date May-30-2015 Revision Number

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

Product identifier Product code Product name Product category

35161 Primrose Yellow 3500 Series UV Durable Graphic 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: 1-913-422-1888 Tel: 1-800-677-4657 Fax: 1-913-422-2294 www.nazdar.com UNITED KINGDOM Nazdar Limited Barton Road Heaton Mersey Stockport, England SK4 3EG Tel: +44 161 442 2111

Emergency telephone number

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

2. HAZARDS IDENTIFICATION

Classification

Acute toxicity - Oral	Category 4 - (H302)
Serious eye damage/eye irritation	Category 2 - (H319)
Skin sensitization	Category 1B - (H317)
Specific target organ toxicity (repeated exposure)	Category 1 - (H372)
Chronic aquatic toxicity	Category 3 - (H412)

Label elements



Hazard Statements H302 - Harmful if swallowed H317 - May cause an allergic skin reaction H319 - Causes serious eye irritation H372 - Causes damage to organs through prolonged or repeated exposure

H412 - Harmful to aquatic life with long lasting effects

P280 - Wear eye protection/ face protection

P260 - Do not breathe dust/fume/gas/mist/vapors/spray

P273 - Avoid release to the environment

Hazards not otherwise classified (HNOC)

May be harmful in contact with skin. Harmful to aquatic life.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Mixture

Component	CAS-No	Weight %	Trade Secret	Note
Glycol Ether Acrylate	Trade Secret	30 - 60	*	
Vinyl Functional Monomer	Trade Secret	10 - 30	*	
Vanadium Compounds	Trade Secret	10 - 30	*	
Acrylated Oligomer	Trade Secret	5 - 10	*	
Photoinitiator	Trade Secret	1 - 5	*	
Photoinitiator	Trade Secret	1 - 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. Hazardous polymerization may take place during a fire due to heat. Closed containers could violently rupture.

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
 Keep at temperatures between 18°-32°C (65°-90°F). Keep containers tightly closed in a dry, cool and well-ventilated place. Keep container closed when not in use. Keep out of the reach of children. Protect from direct sunlight. Keep away from open flames, hot surfaces and sources of ignition.

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

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure limits

This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies

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, s	uch 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				
Physical State Odor	Liquid Mild Sweet Acrylic	Appearance Odor Threshold	Colored Liquid No information available	
Cubi	Wild Sweet Actylic	Oddi Threshold	NO INFORMATION AVAILABLE	
Property	Values	Remarks • Method	_	
рН		No data available		
Melting point/freezing point		No data available		
Boiling point/Boiling Range	> 149 °C / 300 °F			
Flash Point	> 94 °C / > 201 °F	Pensky Martens Clos	sed Cup (PMCC)	
Evaporation rate		No data available		
Flammability Limit in Air				
Upper flammability limit		No data available		
Lower flammability limit		No data available		
Vapor Pressure		No data available		
Vapor Density		No data available		
Specific Gravity	1.27			
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)	10.58			
freight i ei Gallen (186/gal)	10.00			
VOC by weight %	VOC by volume %	VOC lbs/gal	VOC grams/liter	
(less water)	(less water)	(less water)	(less water)	
0-1	0-1	0-1	5.79	

10. STABILITY AND REACTIVITY

Reactivity

No information available.

Chemical stability

Stable under normal conditions.

Possibility of Hazardous Reactions

None under normal processing. Do not store for longer periods at temperatures above 93°C (200°F).

<u>Conditions to avoid</u> Temperatures above 93 °C / 200 °F. Protect from direct sunlight. 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	
Glycol Ether Acrylate	4660 μL/kg (Rat)	

Component	LD50 Dermal	
Glycol Ether Acrylate	2540 μL/kg (Rabbit)	

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	This product does not contain any carcinogens or potential carcinogens as listed by OSHA, IARC or NTP.

Numerical measures of toxicity - Product Information

The following values are calculated based on chapter 3.1 of the GHS documentATEmix (oral)2,900.00 mg/kgATEmix (dermal)6,714.00 mg/kg mg/l

12. ECOLOGICAL INFORMATION

Ecotoxicity

None known

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

Persistence and Degradability

No information available.

Bioaccumulation

No information available.

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	Not regulated			
Proper Shipping Name	Printing Ink			
	Net De sudete d			

 ICAO / IATA / IMDG / IMO
 Not Regulated

 Proper Shipping Name
 Printing Ink

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

<u>SARA 313</u>

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
Glycol Ether Acrylate	Trade Secret	30 - 60	1.0
Vanadium Compounds	Trade Secret	10 - 30	1.0

The above glycol ether acrylate is considered a reactive chemical in ultraviolet curable inks. Once initiated by a high dose of ultraviolet light, this glycol ether acrylate rapidly polymerizes (i.e. hardens) and becomes part of the ink film. The polymerization process of UV curable inks is measured in milliseconds.

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 %
Glycol Ether Acrylate	Trade Secret	30 - 60

U.S. State Regulations

Component	New Jersey Right To Know		
Glycol Ether Acrylate	Х		
Vanadium Compounds	X		
Component	Pennsylvania Right To Know		
Glycol Ether Acrylate	X		

California Prop. 65

This product does not contain any chemicals known to State of California to cause cancer, birth, or any other reproductive defects

<u>Canada</u>

Component	NPRI - National Pollutant Release Inventory		
Vanadium Compounds	Part 1, Group A Substance total of pure Vanadium and the		
	equivalent weight of Vanadium contained in any compound or		
	mixture, except Vanadium contained in an alloy		

16. OTHER INFORMATION						
HMIS:	Health 2	Flammability 1	Reactivity 1	Personal Protection X		
Key or legend to abb	reviations and acrony	ms used in the safety d	ata sheet			
Legend - Section 8: EX	POSURE CONTROLS/PE	ERSONAL PROTECTION				
TWA	TWA (time-	weighted average)				
STEL	STEL (Shoi					
Ceiling	Maximum li	Maximum limit value				
A1 - Known Human Carcino A2 - Suspected Human Carc A3 - Animal Carcinogen IARC: (International Agen Group 1 - Carcinogenic to H Group 2A - Probably Carcino Group 2B - Possibly Carcino NTP: (National Toxicity Pro Known - Known Carcinogen Reasonably Anticipated to b	cinogen cy for Research on Cancer) umans ogenic to Humans ogenic to Humans ogram))				
Revision Date	May-30-201	15				
Disclaimer	in this Cafaty Data Chast	is correct to the best of our	knowledge information	and balliof at the data of its		

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