Sun Chemical Corporation
125 Jay Gee Drive

Franklin OH
USA 45005

SunChemical®
a member of the DIC group

FLOWER CITY PRINTING
1725 MOUNT READ BOULEVARD
ROCHESTER, NY 14606
USA

May 24, 2013

Save Money! Be Green! Receive MSDS electronically!
Email your request to regulatory.emsds@sunchemical.com

Ayez une pensée pour l'environnement ! Gagnez du temps et de l'argent !
Recevez vos FDS par voie électronique! Envoyez vos demandes à regulatory.emsds@sunchemical.com

Ahorra dinero! Cuida el medio ambiente! Recibe las Hojas de Seguridad por correo electrónico!
Envoyez vos demandes a regulatory.emsds@sunchemical.com

Sparen Sie Geld! Handeln Sie umweltbewußt! Fordern Sie Sicherheitsdatenblätter in elektronischer Form an.
Richten Sie Ihre E-Mail an: regulatory.emsds@sunchemical.com

Risparmia soldi! Sii ecologico! Ricevi MSDS in formato elettronico!
Invia la tua richiesta all'indirizzo regulatory.emsds@sunchemical.com

Poupe dinheiro! Seja verde! Receba as F.D.S. electronicamente!
Envie o seu pedido para o email regulatory.emsds@sunchemical.com

Hazardous Material Information System (U.S.A.)

Health	*	2
Fire hazard		1
Reactivity		1
Personal protection		

SunChemical®
a member of the DIC group

Material Safety Data Sheet

1 . Product and company identification

Product code : UVDA064/F232

Colour Index Name : C. I. PIGMENT ORANGE 64

Product name : UV Flexo Orange Base

Material uses : Printing. Colorant.

Manufacturer/ Distributor : Sun Chemical Corporation
631 Central Avenue
Carlstadt, NJ 07072

In case of emergency : (800) 424-9300 (U.S.)
(703) 527-3887 (International)

Regulatory information : Canada: (905) 796-2222
US: (201) 933-4500

Other information : (513) 830-8500

Date of revision : 4/17/2013.

2 . Hazards identification

Physical state : Liquid.

Color : Orange.

OSHA/HCS status This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Emergency overview : Warning!

Irritating to eyes and skin. May cause sensitization by skin contact. Do not breathe vapor or mist. Do not get on skin or clothing. Avoid contact with eyes. Wash thoroughly after handling.

Routes of entry Dermal contact. Inhalation.

Potential acute health effects

Eyes : Irritating to eyes.

Skin : Irritating to skin. May cause sensitization by skin contact.

Inhalation : Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.

Ingestion : No known significant effects or critical hazards.

Potential chronic health effects(Long term exposure)

Carcinogenic effects : No known significant effects or critical hazards.

Mutagenic effects : No known significant effects or critical hazards.

Teratogenicity / Reproductive toxicity : No known significant effects or critical hazards.

Target organs : Contains material which may cause damage to the following organs: skin, eyes.

Medical conditions aggravated by over-exposure : Pre-existing skin disorders and disorders involving any other target organs mentioned in this MSDS as being at risk may be aggravated by over-exposure to this product.

See toxicological information (Section 11)

2 . Hazards identification

3 . Composition/information on ingredients

Hazardous ingredients	CAS number	%
Acrylated Oligomer	GPI-TSRN 005	25 - 40
Acrylate Monomer	Proprietary	25 - 40
Propoxylated Glyceryl Triacrylate	52408-84-1	1 - 2.5

4 . First aid measures

Eye contact : Check for and remove any contact lenses. Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical attention immediately.
In case of accidental eye contact, avoid concurrent exposure to the sun or other sources of UV light which may increase the sensitivity of the eyes.

Skin contact : In case of contact, immediately flush skin with plenty of water while removing contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention if irritation develops.
In case of accidental skin contact, avoid concurrent exposure to the sun or other sources of UV light which may increase the sensitivity of skin.

Inhalation : Move exposed person to fresh air. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention immediately.

Ingestion : Wash out mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention immediately.

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. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

5 . Fire-fighting measures

Flammability of the product : In a fire or if heated, a pressure increase will occur and the container may burst.

Products of combustion : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
nitrogen oxides
halogenated compounds

Extinguishing media

Suitable : Use an extinguishing agent suitable for the surrounding fire.

Not suitable : None known.

Special exposure hazards : 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.

Flammability (OSHA criteria) : IIIB

Flash point : Lowest known value: >93.3°C (200°F) (Closed cup)

6 . Accidental release measures

Personal precautions : 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 (see Section 8).

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 for cleaning up : 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.

7 . Handling and storage

Handling : Put on appropriate personal protective equipment (see Section 8). 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. Persons with a history of skin sensitization problems should not be employed in any process in which this product is used, without Personal Protective Equipment measures. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapor or mist. 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.

Storage : Do not store above the following temperature: 26.667°C (80°F). 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. 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.

Keep away from direct sunlight or strong incandescent light.

Storage Conditions : Do not store above the following temperature: 26.667°C

8 . Exposure controls/personal protection

Engineering measures : No special ventilation requirements. Good general ventilation should be sufficient to control worker exposure to airborne contaminants. If this product contains ingredients with exposure limits, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure below any recommended or statutory limits.

Personal protection

Eyes : 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 or dusts.

Skin : 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.

Respiratory : 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.

Hands : 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.

8 . Exposure controls/personal protection

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. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

9 . Physical and chemical properties

Physical state : Liquid.

Color : Orange.

Odor : Slight.

Boiling/condensation point : Lowest known value: 200°C (392°F)

Flash point : Lowest known value: >93.3°C (200°F) (Closed cup)

VOC : 0%

Density : 1.225 g/cm^3 (10.225 lbs/gal)

Vapor density : Highest known value: >1 (Air = 1) (trimethylolpropane triacrylate). Weighted average: 1.1 (Air = 1)

Evaporation rate : Highest known value: <1 (trimethylolpropane triacrylate) Weighted average: 0.9compared with butyl acetate

10 . Stability and reactivity

Stability and reactivity : The product is stable.

Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Hazardous polymerization : Under normal conditions of storage and use, hazardous polymerization will not occur.

Reactivity - Light : May polymerize on exposure to light.

Conditions of reactivity :

11 . Toxicological information

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
trimethylolpropane triacrylate	LD50 Dermal	Rabbit	5170 mg/kg	-
	LD50 Intraperitoneal	Rat	55 mg/kg	-
	LD50 Oral	Rat	5190 uL/kg	-

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

Chronic toxicity

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

Carcinogenicity

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

Mutagenicity

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

Teratogenicity

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

Reproductive toxicity

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

12 . Ecological information

Environmental effects : No known significant effects or critical hazards.

Aquatic ecotoxicity

Conclusion/Summary : Not available.

Biodegradability

Conclusion/Summary : Not available.

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

13 . Disposal considerations

Waste disposal : The generation of waste should be avoided or minimized wherever possible. Significant quantities of waste product residues should not be disposed of via the foul sewer but processed in a suitable effluent treatment plant. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. 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. 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.

Refer to protective measures listed in sections 7 and 8.
Empty containers or liners may retain some product residues.

14 . Transport information

Regulatory information	UN number	Proper shipping name	Class	PG*	Label	Additional information
DOT Classification			-	-		-

PG* : Packing group

15 . Regulatory information

HCS Classification : Irritating material
Sensitizing material
Target organ effects

TSCA 8(b) inventory : Listed

U.S. Federal regulations : **TSCA 4(a) final test rules**: 4-Methoxyphenol

TSCA 4(a) ITC priority list: No products were found.

TSCA 4(a) proposed test rules: No products were found.

TSCA 5(a)2 final significant new use rules: No products were found.

TSCA 5(a)2 proposed significant new use rules: No products were found.

TSCA 5(e) substance consent order: No products were found.

TSCA 6 final risk management: No products were found.

TSCA 6 proposed risk management: No products were found.

TSCA 8(a) CAIR: No products were found.

TSCA 8(a) chemical risk rules: No products were found.

TSCA 8(a) dioxin/furane precursor: No products were found.

TSCA 8(a) IUR Exempt/Partial exemption: Not determined

TSCA 8(a) PAIR: 4-Methoxyphenol

TSCA 8(c) calls for record of SAR: No products were found.

15 . Regulatory information

TSCA 8(d) H and S data reporting: No products were found.

TSCA 12(b) annual export notification: 4-Methoxyphenol

TSCA 12(b) one-time export: No products were found.

Commerce control list precursor: No products were found.

TSCA commerce control list: Not listed

SARA 302/304/311/312 extremely hazardous substances: No products were found.
SARA 302/304 emergency planning and notification: No products were found.
SARA 302/304/311/312 hazardous chemicals: trimethylolpropane triacrylate
SARA 311/312 MSDS distribution - chemical inventory - hazard identification: trimethylolpropane triacrylate: Immediate (acute) health hazard

Clean Water Act (CWA) 307: No products were found.

Clean Water Act (CWA) 311: No products were found.

Clean Air Act (CAA) 112 accidental release prevention: No products were found.

Clean Air Act (CAA) 112 regulated flammable substances: No products were found.

Clean Air Act (CAA) 112 regulated toxic substances: No products were found.

SARA 313

Product name	CAS number	Concentration

Supplier notification : None identified.

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

CONEG : In compliance.

International lists

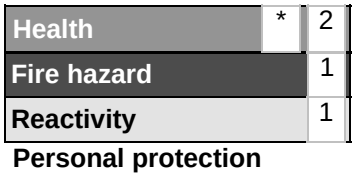
International lists : **Canada inventory**: All components are listed or exempted.
Australia inventory (AICS): At least one component is not listed.
China inventory (IECSC): At least one component is not listed.
Japan inventory: Not determined.
Korea inventory: All components are listed or exempted.
New Zealand Inventory of Chemicals (NZIoC): Not determined.
Philippines inventory (PICCS): Not determined.

Europe Inventory: Please contact your supplier to get the information.

16 . Other information

Label requirements : CAUSES EYE AND SKIN IRRITATION. MAY CAUSE ALLERGIC SKIN REACTION. CONTAINS MATERIAL THAT MAY CAUSE TARGET ORGAN DAMAGE, BASED ON ANIMAL DATA.

Hazardous Material Information System (U.S.A.) :



Version : **2.01**

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.

UVDA064

16 . Other information