SunChemical®

Material Safety Data Sheet

1 . Product and company identification

Product code : C70-N501/G280 900

Product name : O.P. BLACK MULTIGRIP

Material uses : Printing.

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 : 1/24/2009.

2 . Hazards identification

Physical state : Liquid.

Color : Clear.

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

Emergency overview : WARNING !

CONTAINS MATERIAL WHICH CAUSES DAMAGE TO THE FOLLOWING ORGANS: BLOOD, MUCOUS MEMBRANES, LYMPHATIC SYSTEM, RESPIRATORY TRACT, SKIN, CENTRAL NERVOUS SYSTEM, EYE, LENS OR CORNEA.
FLAMMABLE LIQUID AND VAPOR.
VAPOR MAY CAUSE FLASH FIRE.
MAY BE HARMFUL IF ABSORBED THROUGH SKIN OR IF SWALLOWED.
CONTAINS MATERIAL WHICH MAY CAUSE DAMAGE TO THE FOLLOWING ORGANS: KIDNEYS, LIVER.

Do not ingest. Avoid prolonged contact with eyes, skin and clothing. Keep away from heat, sparks and flame. Keep container closed. Use only with adequate ventilation. Wash thoroughly after handling.

Routes of entry Dermal contact. Inhalation.

Potential acute health effects

Eyes : May cause mild eye irritation.

Skin : Harmful in contact with skin.

Inhalation : No known significant effects or critical hazards.

Ingestion : Harmful if swallowed.

Potential chronic health effects

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.

Medical conditions aggravated by over-exposure : Pre-existing skin and digestive 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	%
Diacetone Alcohol	123-42-2	40 - 70
Ethylene Glycol Monopropyl Ether	2807-30-9	10 - 25
2-Butoxyethanol	111-76-2	5 - 10
Super High Flash Naphtha	64742-95-6	1 - 2.5
1,2,4-Trimethylbenzene	95-63-6	1 - 2.5

4 . First aid measures

Eye contact : Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention.

Skin contact : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Inhalation : Move exposed person to fresh air. Keep person warm and at rest. 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.

Ingestion : Wash out mouth with water. Remove dentures if any. Move exposed person to fresh air. Keep person warm and at rest. 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.

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 : Flammable liquid. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Runoff to sewer may create fire or explosion hazard.

Products of combustion : Decomposition products may include the following materials:
carbon oxides

Extinguishing media

Suitable : Use dry chemical, CO_2, water spray (fog) or foam.

Not suitable : Do not use water jet.

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. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

5 . Fire-fighting measures

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) : II

Flash point : Lowest known value: 37.8 to 61°C (100.0 to 141.8°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. Shut off all ignition sources. No flares, smoking or flames in hazard area. 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). Use spark-proof tools and explosion-proof equipment. 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. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use non-sparking tools. Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material. Empty containers retain product residue and can be hazardous. Do not reuse container.

Storage : Store in accordance with local regulations. Store in a segregated and approved area. 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. Eliminate all ignition sources. Separate from oxidizing materials. 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.

8 . Exposure controls/personal protection

Product name	Exposure limits
Diacetone Alcohol	**ACGIH TLV (United States, 1/2007).** TWA: 238 mg/m³ 8 hour(s). TWA: 50 ppm 8 hour(s).
2-Butoxyethanol	**ACGIH TLV (United States, 1/2007).** TWA: 20 ppm 8 hour(s).
1,2,4-Trimethylbenzene	**ACGIH TLV (United States, 1/2007).** TWA: 123 mg/m³ 8 hour(s). TWA: 25 ppm 8 hour(s).

8 . Exposure controls/personal protection

Consult local authorities for acceptable exposure limits.

Engineering measures : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

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, gases 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 : Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. 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.

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.

9 . Physical and chemical properties

Physical state : Liquid.

Color : Clear.

Boiling/condensation point : Lowest known value: 149°C (301°F)

Melting/freezing point : May start to solidify at the following temperature: -42.77°C (-45°F) This is based on data for the following ingredient: Diacetone Alcohol. Weighted average: -48.37°C (-55.1°F)

Flash point : Lowest known value: 37.8 to 61°C (100.0 to 141.8°F) (Closed cup)

VOC : 65.19%

Auto-ignition temperature : Lowest known value: 244°C (471.2°F) (2-Butoxyethanol).

Density : 1.0043 g/cm^3 (8.3815 lbs/gal)

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

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

Critical temperature : Lowest known value: 333.9°C (633°F) (Diacetone Alcohol).

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.

Reactivity - Light : Not applicable.

11 . Toxicological information

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Diacetone Alcohol	LD50 Dermal	Rabbit	13500 mg/kg	-
	LD50 Oral	Rat	2520 mg/kg	-
	LD50 Oral	Rat	4000 mg/kg	-
	LDLo Intravenous	Rat	3024 mg/kg	-
1,2,4-Trimethylbenzene	LD50 Oral	Rat	5 g/kg	-
	LDLo Intraperitoneal	Rat	1752 mg/kg	-
Super High Flash Naphtha	LD50 Oral	Rat	8400 mg/kg	-
2-Butoxyethanol	LD50 Intraperitoneal	Rat	220 mg/kg	-
	LD50 Oral	Rat	917 mg/kg	-
	LD50 Unreported	Rat	917 mg/kg	-
	LDLo Oral	Rat	1500 mg/kg	-
	TDLo Oral	Rat	500 mg/kg	-
	TDLo Unreported	Rat	250 mg/kg	-
Ethylene Glycol Monopropyl Ether	LD50 Dermal	Rabbit	960 uL/kg	-
	LD50 Oral	Rat	3090 mg/kg	-
	LD50 Oral	Rat	3089 mg/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.

Classification

Product/ingredient name	ACGIH	IARC	EPA	NIOSH	NTP	OSHA
2-Butoxyethanol	A3	3	-	-	-	-

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. 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. 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	UN1210	PRINTING INK	3	III		-

PG* : Packing group

15 . Regulatory information

HCS Classification : Combustible liquid
Target organ effects

TSCA 8(b) inventory : Listed

U.S. Federal regulations : TSCA 4(a) dioxins/furanes testing: No products were found.

TSCA 4(a) final testing order: No products were found.

TSCA 4(a) final test rules: Polytetrafluoroethylene; Diacetone Alcohol

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 rules: No products were found.

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TSCA 5(a)2 proposed significant 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/furan precursor: No products were found.

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

TSCA 8(a) PAIR: Dimethylpolysiloxane; Diacetone Alcohol

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

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

TSCA 12(b) annual export notification: No products were found.

TSCA 12(b) one-time export: Diacetone Alcohol

TSCA precursor chemical list: No products were found.

TSCA commerce control list: No products were found.

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: C. I. Pigment Black 7; Diacetone Alcohol; 2-Butoxyethanol; 1,2,4-Trimethylbenzene
SARA 311/312 MSDS distribution - chemical inventory - hazard identification: C. I. Pigment Black 7: Immediate (acute) health hazard, Delayed (chronic) health hazard; Diacetone Alcohol: Fire hazard, Immediate (acute) health hazard; 2-Butoxyethanol: Fire hazard, Immediate (acute) health hazard, Delayed (chronic) health hazard; 1,2,4-Trimethylbenzene: Fire hazard, Delayed (chronic) health hazard

Clean Water Act (CWA) 307: Ethyl Benzene

Clean Water Act (CWA) 311: Xylene; Ethyl Benzene

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

15 . Regulatory information

		Product name	CAS number	Concentration
Form R - Reporting requirements	:	Glycol Ethers	2807-30-9	12.15
		Glycol Ethers	111-76-2	7.695

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.

16 . Other information

Label requirements : FLAMMABLE LIQUID AND VAPOR. COMBUSTIBLE. MAY BE HARMFUL IF ABSORBED THROUGH SKIN OR IF SWALLOWED. CONTAINS MATERIAL THAT CAN CAUSE TARGET ORGAN DAMAGE.

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

Health	*	2
Fire hazard		2
Reactivity		0

Personal protection

Version : **1**

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.

VOLATILE COMPONENT INFORMATION

		US EPA Designate
A. Product Density:		
1.)	1.0043 g/cm^3 (8.3815 lbs/gal)	=(Dc)s
B. Nonvolatile Content:		
1.)	34.81 Weight percent of nonvolatiles in product	=(Wn)s
2.)	28.9 Volume percent of nonvolatiles in product	=(Vn)s
3.)	10.09 Density, lb nonvolatiles/gal nonvolatiles	=(Dn)s
C. Volatiles:		
1.)	65.19 Weight percent of total volatiles in product	=(Wv)s
2.)	7.68 Density, lb volatiles/gal volatiles	=(Dv)s
D. Water Content:		
1.)	0 Weight percent of water in product	=(Ww)s
2.)	0 Volume percent of water in product	=(Vw)s
E. Volatile Organic Compounds, (VOCs):		
1.)	65.19 Weight percent of organic volatiles in product	=(Wo)s
2.)	71.1 Volume percent of organic volatiles in product	=(Vo)s
3.)	7.68 Density, lb organic volatiles/gal organic volatiles	=(Do)s
4.)	100 Weight percent of VOCs in total volatiles	=(Wo)v
5.)	100 Volume percent of VOCs in total volatiles	=(Vo)v

F. VOC Content in Product Expressed in Other Terms:

1.) a.)	5.46 lb VOC / gal Product
1.) b.)	654.72 grams VOC / liter Product
2.) a.)	5.46 lb VOC / gal Product less water & exempt solvent
2.) b.)	654.72 grams VOC / liter Product less water & exempt solvent
3.)	18.9 lb VOC / gal total nonvolatiles

G. Volatiles

Ingredient	CAS number	% by weight	Density (lb/gal)
Hazardous Air Pollutants VOCs (HAPs)		12.3	
Cumene	98-82-8	0.07	7.19
Xylene	1330-20-7	0.07	7.17
Ethyl Benzene	100-41-4	0.01	7.2
Glycol Ethers	Not applicable.	12.15	7.6
Other VOCs (Non-HAPs)			
Diacetone Alcohol	123-42-2	40.89	7.83
2-Butoxyethanol	111-76-2	7.7	7.53
Super High Flash Naphtha	64742-95-6	2.21	6.51
1,2,4-Trimethylbenzene	95-63-6	2.09	7.34
Water	7732-18-5	0	
Ammonia.	7664-41-7	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.