

(11077)

# Material Safety Data Sheet



Revision Number: 001.1

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## 1. PRODUCT AND COMPANY IDENTIFICATION

**Product name:** DAG154  
**Product use:** Dry film lubricant

**IDH number:** 1224738

**Region:** Canada

**Company address:**  
Henkel Canada Corporation  
2515 Meadowpine Boulevard  
Mississauga, Ontario L5N 6C3

**Contact information:**  
Telephone: 905.814.6511  
MEDICAL EMERGENCY Phone: Poison Control Center  
1-877-671-4608 (toll free) or 1-303-592-1711  
TRANSPORT EMERGENCY Phone: CHEMTREC  
1-800-424-9300 (toll free) or 1-703-527-3887  
Internet: www.henkelna.com

## 2. HAZARDS IDENTIFICATION

<u>EMERGENCY OVERVIEW</u>	
<b>Physical state:</b> Liquid	<b>WHMIS hazard class:</b> D.2.B, B.2
<b>Color:</b> Black	
<b>Odor:</b> Alcohol	
<b>DANGER:</b>	<b>FLAMMABLE!</b> <b>HIGHLY TOXIC</b> <b>CAUSES EYE IRRITATION.</b> <b>HARMFUL IF SWALLOWED.</b>

**APPROVED MATERIAL**

JAN 11 2013

MSDS # 11077

APPROVED BY *[Signature]*

**Relevant routes of exposure:** Skin, Inhalation, Eyes, Ingestion

### Potential Health Effects

- Inhalation:** Inhalation of vapors or mists of the product may be irritating to the respiratory system. Breathing high concentrations of vapor may cause anesthetic effects. Excessive inhalation of this material causes headache, dizziness, nausea and incoordination.
- Skin contact:** Prolonged or excessive skin contact with this product may cause mild skin irritation. This material may be absorbed through the skin, especially if skin is damaged. Repeated exposure may cause skin dryness or cracking. Dermatitis.
- Eye contact:** Causes eye irritation. Exposure to vapor may cause tearing of the eyes, irritation and burning sensation.
- Ingestion:** May irritate mouth, throat, and stomach if swallowed. May cause central nervous system depression. Toxic if swallowed. May cause dizziness, incoordination, headache, nausea, and vomiting. May cause drowsiness, faintness, weakness, collapse, and coma. Extreme overexposure may result in unconsciousness and possibly death.

**Existing conditions aggravated by exposure:** Eye, skin and respiratory disorders.

See Section 11 for additional toxicological information.

## 3. COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous components	CAS NUMBER	%
2-Propanol	67-63-0	60 - 100
Graphite	7782-42-5	10 - 30
n-Butyl alcohol	71-36-3	1 - 5
1-Methoxy -2-propanol	107-98-2	1 - 5

#### 4. FIRST AID MEASURES

<b>Inhalation:</b>	Move to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.
<b>Skin contact:</b>	Immediately flush skin with plenty of water (using soap, if available). Remove contaminated clothing and footwear. Wash clothing before reuse. Get medical attention.
<b>Eye contact:</b>	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.
<b>Ingestion:</b>	DO NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention.

#### 5. FIRE FIGHTING MEASURES

<b>Flash point:</b>	11.6 °C (52.88 °F) Tagliabue closed cup
<b>Autoignition temperature:</b>	398.8 °C (749.84 °F)
<b>Flammable/Explosive limits - lower:</b>	2 %
<b>Flammable/Explosive limits - upper:</b>	12 %
<b>Extinguishing media:</b>	Water spray (fog), foam, dry chemical or carbon dioxide.
<b>Special firefighting procedures:</b>	Wear self-contained breathing apparatus and full protective clothing, such as turn-out gear. In case of fire, keep containers cool with water spray.
<b>Unusual fire or explosion hazards:</b>	Closed containers may rupture (due to build up of pressure) when exposed to extreme heat.
<b>Hazardous combustion products:</b>	Carbon dioxide. Carbon monoxide. Hydrocarbons.
<b>Sensitivity to Mechanical Impact:</b>	Not available.
<b>Sensitivity to static discharge:</b>	Electrostatic charge may build-up during handling. Grounding of equipment is recommended.

#### 6. ACCIDENTAL RELEASE MEASURES

Use personal protection recommended in Section 8, isolate the hazard area and deny entry to unnecessary and unprotected personnel.

<b>Environmental precautions:</b>	Do not allow product to enter sewer or waterways.
<b>Clean-up methods:</b>	Evacuate and ventilate spill area; dike spill to prevent entry into water system; wear full protective equipment during clean-up. Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Scrape up as much material as possible. Store in a partly filled, closed container until disposal. Wash spillage site thoroughly with soap and water or detergent solution.

#### 7. HANDLING AND STORAGE

<b>Handling:</b>	Use only with adequate ventilation. Prevent contact with eyes, skin and clothing. Do not breathe vapor and mist. Wash thoroughly after handling. Refer to Section 8.
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**Storage:**

For safe storage, store between 5.0 °C (41°F) and 30.0 °C (86°F)  
 Keep container closed. Store in a cool, dry, well-ventilated area. Storage within given temperature limit Outside temperature limits, the properties of the product will change. Store in original container until ready to use. Keep out of reach of children and away from food and drink. Protect from direct sunlight.

For information on product shelf life, please review labels on container or check the Technical Data Sheet.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Employers should complete an assessment of all workplaces to determine the need for, and selection of, proper exposure controls and protective equipment for each task performed.

Hazardous components	ACGIH TLV	OSHA PEL	AIHA WEEL	OTHER
2-Propanol	200 ppm TWA 400 ppm STEL	400 ppm (980 mg/m <sup>3</sup> ) TWA	None	None
Graphite	2 mg/m <sup>3</sup> TWA Respirable fraction.	15 mg/m <sup>3</sup> TWA Total dust. 5 mg/m <sup>3</sup> TWA Respirable fraction. 15 MPPCF TWA	None	None
n-Butyl alcohol	20 ppm TWA	100 ppm (300 mg/m <sup>3</sup> ) TWA	None	None
1-Methoxy -2-propanol	150 ppm STEL 100 ppm TWA	None	None	None

**Engineering controls:**

Provide adequate local exhaust ventilation to maintain worker exposure below exposure limits.

**Respiratory protection:**

Use NIOSH approved respirator if there is potential to exceed exposure limit(s).

**Eye/face protection:**

Safety goggles or safety glasses with side shields. Full face protection should be used if the potential for splashing or spraying of product exists. Safety showers and eye wash stations should be available.

**Skin protection:**

Use impermeable gloves and protective clothing as necessary to prevent skin contact.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Physical state:</b>	Liquid
<b>Color:</b>	Black
<b>Odor:</b>	Alcohol
<b>Odor threshold:</b>	Not available.
<b>pH:</b>	Not applicable
<b>Vapor pressure:</b>	33 mm hg
<b>Boiling point/range:</b>	> 82 °C (> 179.6 °F)
<b>Melting point/ range:</b>	-88.8 °C (-127.8 °F)
<b>Specific gravity:</b>	0.89
<b>Vapor density:</b>	2.07
<b>Flash point:</b>	11.6 °C (52.88 °F) Tagliabue closed cup
<b>Flammable/Explosive limits - lower:</b>	2 %
<b>Flammable/Explosive limits - upper:</b>	12 %
<b>Autoignition temperature:</b>	398.8 °C (749.84 °F)
<b>Evaporation rate:</b>	2.9 (Butyl acetate = 1)
<b>Solubility in water:</b>	Disperses in water as a suspension
<b>Partition coefficient (n-octanol/water):</b>	-0.14
<b>VOC content:</b>	710 g/l
<b>Viscosity:</b>	200 - 800 cp

## 10. STABILITY AND REACTIVITY

<b>Stability:</b>	Stable under normal conditions of storage and use.
<b>Hazardous reactions:</b>	None under normal processing.
<b>Hazardous decomposition products:</b>	Carbon dioxide. Carbon monoxide. Hydrocarbons.
<b>Incompatible materials:</b>	Strong oxidizing agents. Strong acids. Aldehydes.
<b>Conditions to avoid:</b>	High temperatures. Oxidizing conditions.

## 11. TOXICOLOGICAL INFORMATION

**Toxicologically synergistic products:** Not available.

Refer to the following for Irritancy of Product, Sensitization to Product, Carcinogenicity, Reproductive Toxicity, Teratogenicity, and Mutagenicity.

Hazardous components	NTP Carcinogen	IARC Carcinogen	OSHA Carcinogen (Specifically Regulated)	ACGIH Carcinogen
2-Propanol	No	No	No	Group A4
Graphite	No	No	No	No
n-Butyl alcohol	No	No	No	No
1-Methoxy -2-propanol	No	No	No	No

Hazardous components	LD50s and LC50s	Health Effects/Target Organs
2-Propanol	Oral LD50 (RAT) = 5,045 mg/kg Oral LD50 (rabbit) = 6,410 mg/kg Oral LD50 (RAT) = 4.7 g/kg Oral LD50 (rabbit) = 5.03 g/kg Oral LD50 (rabbit) = 8.0 g/kg Dermal LD50 (rabbit) = 12,800 mg/kg	Allergen, Blood, Brain, Central nervous system, Irritant, Kidney, Liver, Spleen
Graphite	None	Lung
n-Butyl alcohol	Oral LD50 (RAT) = 790 mg/kg Dermal LD50 (rabbit) = 3,400 mg/kg Inhalation LC50 (RAT, 4 h) = 8,000 mg/l	Allergen, Central nervous system, Ear, Eyes, Irritant
1-Methoxy -2-propanol	Oral LD50 (RAT) = 36 g/kg Oral LD50 (rabbit) = 5.3 g/kg Oral LD50 (RAT) = 5.71 g/kg Oral LD50 (RAT) = 7.51 g/kg Dermal LD50 (rabbit) = 13 g/kg Inhalation LC50 (RAT, 4 h) = 54.6 mg/l Inhalation LC50 (RAT, 4 h) = 15,000 mg/l	Central nervous system, Developmental, Irritant

## 12. ECOLOGICAL INFORMATION

**Ecological information:** Do not empty into drains / surface water / ground water.

### 13. DISPOSAL CONSIDERATIONS

Information provided is for unused product only.

Recommended method of disposal: Follow all local, state, federal and provincial regulations for disposal.

### 14. TRANSPORT INFORMATION

#### Canada Transportation of Dangerous Goods - Ground

Proper shipping name: PAINT  
Hazard class or division: 3  
Identification number: UN 1263  
Packing group: II

#### International Air Transportation (ICAO/IATA)

Proper shipping name: Paint  
Hazard class or division: 3  
Identification number: UN 1263  
Packing group: II

#### Water Transportation (IMO/IMDG)

Proper shipping name: PAINT  
Hazard class or division: 3  
Identification number: UN 1263  
Packing group: II

### 15. REGULATORY INFORMATION

#### Canada Regulatory Information

CEPA DSL/NDSL Status: All components are listed on or are exempt from listing on the Canadian Domestic Substances List.

#### United States Regulatory Information

TSCA 8 (b) Inventory Status: All components are listed or are exempt from listing on the Toxic Substances Control Act Inventory.

### 16. OTHER INFORMATION

This material safety data sheet contains changes from the previous version in sections: New Material Safety Data Sheet format.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulation (CPR), and the MSDS contains all the information required by the CPR.

Prepared by: Jennifer Mckay, Regulatory Affairs Specialist

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