

Safety Data Sheet

TA Instruments Inc. 159 Lukens Drive New Castle, DE 19720 U.S.A. Tel: +1 302-427-4000 FAX: +1 302-427-4001 www.tainstruments.com	EU: TA Instruments, A Division of Waters NV/SA ConneXion Business Park Brusselsesteenweg 500 B-1731 Zellik, Belgium Phone: 32/2 706 00 80 Fax: 32/2 706 00 81 Email: Belgium@tainstruments.com	FOR CHEMICAL EMERGENCY 24 Hours per Day, 7 Days per Week Call CHEMTREC 800-424-9300 Outside N. America call collect +1 703-527-3887 SDS email inquiries: info@tainstruments.com
--	--	--

1. IDENTIFICATION

Product: Graphite Spray, PN 202316.001	MSDS #: 901514.001
Product Use: For laboratory use only.	Date: Rev A, May 27, 2014

2. HAZARDS IDENTIFICATION:

Classification & labeling according to GHS, OSHA, and Table 3.1 Annex VI of regulation 1272/2008/EU, as amended:
 Classification: Hazard Class and Category: Flammable gas, Category 1 (gases under pressure); Flammable liquid, Category 2; Serious eye damage/eye irritation, Category 2; Aspiration hazard, Category 1; Specific target organ toxicity after single exposure, Category 2; Reproductive toxicity, Category 2.



GHS/CLP/OSHA Label Elements: Pictogram(s):  Signal Word(s): Danger. Hazard statement(s): Extremely flammable gas. Highly flammable liquid and vapour. Causes serious eye irritation. Causes skin irritation. May cause drowsiness or dizziness. Suspected of damaging the unborn child. May be fatal if swallowed and enters airways. May cause damage to organs through prolonged or repeated exposure. Precautionary statements(s): Use only in a well ventilated area. Keep away from sources of ignition - No smoking. Wear suitable protective clothing and gloves.

A dry film, graphite lubricant, packaged in a 10 ounce aerosol spray can with a compressed flammable gas propellant. Contents under pressure. Use only as directed and in accordance with safe laboratory practices.

3. COMPOSITION/INFORMATION ON INGREDIENTS:

CHEMICAL INGREDIENT NAME	CAS NUMBER	EC NUMBE R	% by Weight	EXPOSURE LIMITS		
				OSHA	ACGIH	EU IOELV
Propane	74-98-6	200-827-9	22	1000 ppm	NA	NA
Butane	106-97-8	203-448-7	22	NA	1000 ppm STEL	NA
Heptane	142-82-5	205-563-8	34	500 ppm	400 ppm; 500 ppm STEL	500 ppm
Toluene	108-88-3	203-625-9	1	200 ppm; 300 ppm STEL; 500 ppm C	20 ppm	50 ppm; 100 ppm STEL; Skin
2-Propanol (isopropyl alcohol)	67-63-0	200-661-7	19	400 ppm	200 ppm; 400 ppm STEL	NA

Notes: For use only with our instruments to assist with sample laser energy absorption. Exposure Limits are 8-Hour TWA. (Time Weighted Average) unless designated C (Ceiling) or STEL (Short Term Exposure Limit). Skin notation means compound can be absorbed through the skin.

4. FIRST AID MEASURES:

Inhalation: Remove to fresh air.
 Skin Contact: Flush with water.
 Eye Contact: Immediately flush with water for a minimum of 15 minutes.
 Ingestion: Get medical attention.
 After following first aid measures, seek medical attention.

5. FIRE-FIGHTING MEASURES:

Flammable Properties: Flammable liquid and gas. Vapors are heavier than air and may travel to sources of ignition and flash back.
 Extinguishing Media: Dry chemical, carbon dioxide or appropriate foam.
 Unique Aspects Contributing To a Fire: None.
 Special Fire Fighting Procedures: Aerosol cans can rupture violently from heat developed pressure.
 Note: As in any fire, wear self-contained breathing apparatus, and full protective gear.

6. ACCIDENTAL RELEASE MEASURES: Spills from aerosol cans are unlikely and generally of small volume. Ventilate the area well. Remove all sources of ignition. Absorb with spill pillow or other absorbent. Place wastes into closed containers for proper disposal.

7. HANDLING AND STORAGE: Avoid heat, static electricity, or any source of ignition. Do not store in sunlight or heat over 120°F (49°C). High temperatures may cause bursting. Contents are under pressure. Do not puncture or incinerate. Do not spray into open flame or onto hot surfaces. Use only as directed and in accordance with safe laboratory practices.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION:

Handle in accordance with safe laboratory practices.
 Respiratory Protection: Not normally needed. If exposure limits are exceeded, use approved organic vapor/particulate respirator.
 Eye Protection: Safety glasses with side protection.
 Skin Protection: Nitrile or other chemical resistant gloves. Disposable nitrile are acceptable for light intermittent exposure.

Engineering Controls: Work in a fume hood or use general or other local exhaust ventilation to meet Exposure Limits.

9. PHYSICAL AND CHEMICAL PROPERTIES:

Appearance: Aerosol

Physical State: Liquid in aerosol can	Flash Point: Propellant < 0°F (<-18 °C)	Vapor Pressure: NA
Odor: NA	Explosion Limits: 1.0 - 12.7	Vapor Density (air=1): > 1
pH: NA	Boiling Point: -40°F - 238°F (-40 °C - 114 °C)	Solubility in Water: NA
Specific Gravity: 0.63	Melting Point: NA	Other: Percent volatile: 99%

10. STABILITY AND REACTIVITY:

Hazardous Polymerization Will Not Occur May Occur
 Stability: Stable

<u>Hazardous Decomposition/Combustion Products:</u> Oxides of carbon.	<u>Conditions & Materials to Avoid:</u> Heat, flame, sources of ignition.
--	--

11. TOXICOLOGICAL INFORMATION:

Primary Route(s) of Exposure under Normal Use: Inhalation.

Target Organ(s): Central nervous system, cardiovascular system, reproductive system, kidney, liver.

Acute Effects: May cause central nervous system depression, headache, dizziness, nausea, distorted perceptions, eye, skin, or respiratory tract irritation. Extreme overexposure may result in unconsciousness and possibly death.

Heptane: Inhalation, rat: LC50: >29290 mg/m3; Intravenous, mouse: LD50: 222 mg/kg.

2-Propanol: Oral-rat LD50: 5045 mg/kg; Oral-human LDLo: 3570 mg/kg; Eye-rabbit 100 mg/24H MOD.

Toluene: LD50 Oral - rat - > 5,580 mg/kg; LC50 Inhalation - rat - 4 h - 12,500 - 28,800 mg/m3.

Chronic Effects: Prolonged overexposure may cause damage to the liver, urinary system, cardiovascular system or reproductive system.

Other Information: Chemical Ingredient(s) not classified as carcinogen(s) by OSHA, IARC, NTP, ACGIH, or California.

WARNING: This product contains a chemical, toluene, known to the State of California to cause birth defects or other reproductive harm.

12. ECOLOGICAL INFORMATION: NA

13. DISPOSAL CONSIDERATIONS: Consult state, local or national regulations for proper disposal. The U.S. Environmental Protection Agency (EPA) classifies unused product as hazardous waste.

14. TRANSPORT INFORMATION:

<u>IATA/ICAO:</u> Shipping Name: Aerosols, Flammable, Limited Quantity Hazard Class: 2.1 UN/NA #: 1950 Packing Group #: NA	<u>IMDG:</u> Aerosols, UN 1950, may be shipped as Limited Quantity <u>ADR:</u> NA
---	--

15. REGULATORY INFORMATION:

U.S. TOSCA: Constituents listed.

Canada: This product has been classified according to the hazard criteria of the Controlled Product Registration (CPR) and this SDS contains all the information required by the CPR.

16. OTHER INFORMATION:

<u>U.S. EPA</u>	National Fire Protection Association Rating		
<u>SARA 313 Chemicals</u>	<u>CERCLA RQ</u>	4=Severe Hazard	<u>HEALTH</u> NA
Toluene	1000 lbs	3=Serious Hazard	<u>FLAMMABILITY</u> NA
		2=Moderate Hazard	<u>REACTIVITY</u> NA
		1=Slight Hazard	<u>OTHER</u> NA
		0=Minimal Hazard	

Notes, abbreviations and acronyms:

ACGIH: American Conference of Governmental Industrial Hygienists
 ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road
 CAS: Chemical Abstracts Service (division of the American Chemical Society)
 EC: European Commission
 EU IOELV: European Union Indicative Occupational Exposure Limit Values

GHS: Globally Harmonized System of Classification and Labeling of Chemicals
 IATA: International Air Transport Association
 IMDG: International Maritime Code for Dangerous Goods
 NA: Not Available.
 OSHA: Occupational Safety and Health Administration

For laboratory use only. Not for drug, household or other uses.

The information contained herein has been compiled from data presented in various technical sources believed to be accurate. Waters makes no warranties and assumes no liability in connection with the use of this information. It is the user's responsibility to determine the suitability of this information and to assure the adoption of necessary precautions.