OSBORN DRY GRAPHITE LUBE 76210

SAFETY DATA SHEET

OSHA HCS (29 CFR 1910.1200)

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

Product identifier

Chemical Name	Mixture
CAS No.	Mixture
Trade Name	OSBORN DRY GRAPHITE LUBE 76210
Product Code	M-5824

Relevant identified uses of the substance or mixture and uses advised against

Identified Use(s)	Lubricant
Uses Advised Against	None
Company Identification	Osborn 2350 Salisbury Road North Richmond, IN 47374 USA
Telephone	(765) 965-5333
Fax	(765) 935-0212
E-Mail (competent person)	marketsupport@osborn.com

Emergency telephone number

Emergency Phone No.	**Transportation Emergency:** CHEMTREC 24 hr. 1-800-424-9300 / 1 (703) 527-3887 (Collect calls accepted)

SECTION 2: HAZARDS IDENTIFICATION

Classification of the substance or mixture

OSHA HCS (29 CFR 1910.1200) — Flam. Aerosol 1; Liquefied gas; Skin Irrit. 2; Repr. 2; STOT SE 3; STOT RE 1; Asp. Tox. 1

Label elements

Hazard Symbol

Signal word(s): **DANGER**

Hazard Statement(s):

Extremely flammable aerosol.

Contains gas under pressure; may explode if heated.

Causes skin irritation.

Suspected of damaging fertility or the unborn child.

Causes damage to organs through prolonged or repeated exposure: Central Nervous System, Route: Inhalation

May cause drowsiness or dizziness.

May be fatal if swallowed and enters airways.

Precautionary Statement(s):

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

Keep away from heat/sparks/open flames/hot surfaces. – No smoking.

Do not spray on an open flame or other ignition source.

Do not pierce or burn, even after use.

Ground/bond container and receiving equipment.

Use only outdoors or in a well-ventilated area.
Do not breathe mist/vapours/spray.
Wear protective gloves/eye protection.
Wash hands and exposed skin after use.
Protect from sunlight and do not expose to temperatures exceeding 50 ºC/122 ºF.

Other hazards: Harmful to aquatic life.

Additional Information: None

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Ingredient(s)	% wt. *	CAS No.	Hazard classification
n-Hexane	> 60	110-54-3	Flam. Liq. 2; H225 Asp. Tox. 1; H304 Repr. 2; H361 Skin Irrit. 2; H315 STOT SE 3; H336 STOT RE 2; H373
Propane	10 - 20	74-98-6	Flam. Gas 1; H220 Liquefied gas; H280
Butane	10 - 20	106-97-8	Flam. Gas 1; H220 Liquefied gas; H280
Aliphatic hydrocarbons (Stoddard Solvent)	5 - 10	8052-41-3	Flam. Liq. 3; H226 Asp. Tox. 1; H304 STOT SE 3; H336 STOT RE 1; H372 Aquatic Acute 2; H401 Aquatic Chronic 3; H412

Additional Information – None

***** The exact percentage withheld as a trade secret in accordance with 29 CFR 1910.1200.

SECTION 4: FIRST AID MEASURES

Description of first aid measures

Inhalation	Move person to fresh air. If breathing is labored, administer oxygen. If symptoms develop, obtain medical attention.
Skin Contact	Wash affected skin with soap and water. If symptoms develop, obtain medical attention. Take off contaminated clothing and wash it before reuse. Get medical advice/attention if you feel unwell.
Eye Contact	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists, get medical advice/attention.
Ingestion	Do not give anything by mouth to an unconscious person. Seek medical treatment. Do NOT induce vomiting.
Most important symptoms and effects, both acute and delayed	May be harmful if swallowed and enters airways.
Indication of any immediate medical attention and	IF SWALLOWED: Immediately call a POISON CENTER or

special treatment needed	doctor/physician. Do NOT induce vomiting.

SECTION 5: FIRE-FIGHTING MEASURES

Extinguishing Media

-Suitable Extinguishing Media	Extinguish with carbon dioxide, dry chemical, foam or water spray.
-Unsuitable Extinguishing Media	Do not use water jet.
Special hazards arising from the substance or mixture	Highly flammable vapor (flash point below 23°C).
Advice for fire-fighters	A self contained breathing apparatus and suitable protective clothing should be worn in fire conditions. Keep containers cool by spraying with water if exposed to fire.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	Keep away from heat/sparks/open flames/hot surfaces. – No smoking. Avoid contact with skin and eyes. Avoid breathing vapors.
Environmental precautions	Prevent liquid entering sewers, basements and work pits.
Methods and material for containment and cleaning up	Cover spills with inert absorbent material. Transfer to a container for disposal or recovery.
Reference to other sections	None
Additional Information	None

SECTION 7: HANDLING AND STORAGE

Precautions for safe handling	Keep away from heat/sparks/open flames/hot surfaces. – No smoking. Use only outdoors or in a well-ventilated area. Avoid contact with skin and eyes. Avoid breathing vapors. Ground/bond container and receiving equipment.

Conditions for safe storage, including any incompatibilities

-Storage temperature	Keep in a cool, well ventilated place. Store at temperatures not exceeding 50 °C / 122 °F.
-Incompatible materials	This product should be stored away from sources of strong heat or oxidizing chemicals.
Specific end use(s)	Lubricant

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational Exposure Limits

SUBSTANCE.	CAS No.	(8hr TWA)		(STEL)		Note:
		PEL (OSHA)	TLV (ACGIH)	PEL (OSHA)	TLV (ACGIH)	
n-Butane	106-97-8	-----	250 ppm	-----	-----	-----
Propane	74-98-6	1000 ppm	Aspyx.[#]	-----	-----	#
n-Hexane	110-54-3	500 ppm	50 ppm*	-----	-----	*Skin
Aliphatic hydrocarbons (Stoddard Solvent)	8052-41-3	500 ppm	100 ppm	-----	-----	-----

[#]Assure minimum oxygen content of work atmosphere;

Recommended monitoring method

NIOSH 1300 (Ketones I); NIOSH 1500 (hydrocarbons, B.P. 36 - 126 ºC); NIOSH 1501 (Hydrocarbons, Aromatic); NIOSH 1550 (Naphthas)

Exposure controls

Appropriate engineering controls

Provide adequate ventilation to ensure that the occupational exposure limit is not exceeded.

Personal protection equipment

Eye/face protection

Wear protective eyewear (goggles, face shield, or safety glasses).

Skin protection (Hand protection/ Other)

Wear suitable gloves if prolonged skin contact is likely. Check with protective equipment manufacturer's data.

Respiratory protection

Normally no personal respiratory protection is necessary. In case of insufficient ventilation, wear suitable respiratory equipment. Check with protective equipment manufacturer's data.

Thermal hazards

Not normally required. Use gloves with insulation for thermal protection, when needed.

Environmental Exposure Controls

None known

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance	Aerosol
Color.	Colorless
Odor	Petroleum spirit / Fuel oil-like
Odor Threshold (ppm)	Not available
pH (Value)	Not available
Melting Point (°C) / Freezing Point (°C)	Not available
Boiling point/boiling range (°C):	Not available
Flash Point (°C)	-104 (Propane)
Evaporation Rate	Not available
Flammability (solid, gas)	Extremely flammable
Explosive Limit Ranges	2.1% - 9.5% v/v (Propane)
Vapor pressure (Pascal)	ca. 95 x 10^4 (Propane)
Vapor Density (Air=1)	ca. 1.56 @ 0ºC (Propane)
Density (g/ml)	Not available
Solubility (Water)	Not available
Solubility (Other)	Not available
Partition Coefficient (n-Octanol/water)	Not available
Auto Ignition Point (°C)	450 (Propane)
Decomposition Temperature (°C)	Not available
Kinematic Viscosity	<20 cSt
Explosive properties	Not explosive.
Oxidizing properties	Not oxidizing.

Other information

Not available

SECTION 10: STABILITY AND REACTIVITY

Reactivity

Stable under normal conditions.

Chemical stability	Stable.
Possibility of hazardous reactions	None anticipated.
Conditions to avoid	Avoid contact with heat and ignition sources.
Incompatible materials	Strong oxidizing agents
Hazardous decomposition product(s)	Carbon monoxide, Carbon dioxide, Acrid smoke

SECTION 11: TOXICOLOGICAL INFORMATION

Exposure routes: Inhalation**,** Skin Contact**,** Eye Contact

Information on toxicological effects

n-Hexane (CAS No. 110-54-3):

Acute toxicity	Oral: LD50 ≈16 g/kg-bw (May be fatal if swallowed and enters airways.) Dermal: LD50 >2 g/kg-bw. rabbit Inhalation: LC50 > 17600 mg/m3 (Vapor), 24-hr. rat (May cause drowsiness or dizziness.)
Irritation/Corrosivity	Causes skin irritation. Repeated exposure may cause skin dryness or cracking.
Sensitization	It is not a skin sensitizer.
Repeated dose toxicity	LOAEL: 37973 mg/kg (101 days, oral, rat, CNS effects) NOAEL: 1135 mg/kg (101 days, oral, rat, CNS effects) NOAEC: 1760 mg/m3 (90 day, inhal., female mice, nasal lesions) LOAEC: 3000 ppm (12 hr a day for 16 weeks, inhal., rat, CNS effects
Carcinogenicity (By analogy with similar materials)	NOEL: 31736 mg/m3 (2 years, inhal. Oncogenic effects)

NTP	IARC	ACGIH	OSHA	NIOSH
No.	No.	No.	No.	No.

Mutagenicity	There is no evidence of mutagenic potential.
Reproductive toxicity	Studies in animals have shown that repeated exposures produce adverse reproductive effects.

Aliphatic Hydrocarbon (Stoddard Type) (CAS No. 8052-41-3) - By analogy with similar materials:

Acute toxicity (calculated / estimated)	Oral: LD50 >5000 mg/kg-bw Dermal: LD50 >2000 mg/kg-bw Inhalation: LC0 ≥5.28 mg/l (Vapor), 4-hr. rat - May cause drowsiness or dizziness.
Irritation/Corrosivity	Causes skin irritation. Repeated exposure may cause skin dryness or cracking.
Sensitization	It is not a skin sensitizer.
Repeated dose toxicity	Causes damage to organs through prolonged or repeated exposure: Central Nervous System: Oral: NOEAL 750 mg/kg Dermal: NOEAL 0.5 ml/kg bw Inhalation: NOAEL ≥1000 mg/m3
Carcinogenicity	It is unlikely to present a carcinogenic hazard to man.

NTP	IARC	ACGIH	OSHA	NIOSH
No.	No.	No.	No.	No.

Mutagenicity	Not to be expected
Reproductive toxicity	Not to be expected

Propane (CAS# 74-98-6):

Acute toxicity	Inhalation: LC50 = 1237 mg/L (2-hr, mouse, gas)

Irritation/Corrosivity	No evidence of irritant effects from normal handling and use.
Sensitisation	It is not a skin sensitiser.
Repeated dose toxicity	NOAEC: ≥19678 mg/m3 (28-day, rat, Systemic effects) LOAEC: 21641 mg/m3 (28-day, rat, effects: Body weight)
Carcinogenicity	No data. It is unlikely to present a carcinogenic hazard to man.
Mutagenicity	There is no evidence of mutagenic potential.
Reproductive toxicity	None anticipated

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity

n-Hexane (CAS# 110-54-3):

Short term	LC50 (96 hour): >1000 µg/L (*Oryzias latipes*) LC50 (48 hour): 45 mmol/m3 (*Daphnia magna,* mortality*)* EC50 (96 hour): 2.66% (*C. pyreniodosa*)
Long Term	NOELR (28 days) 2.8 mg/l *(Fish*) QSAR NOELR (21 days): 4.88 mg/l (*Daphnia magna*) QSAR NOEL (96 hour) 2.077 mg/l (Algae) QSAR

Stoddard Solvent (CAS# 8042-41-3:

Short term	LL50 (96 hour): 3.5 mg/L (*Chaetogammarus marinus*) ErC50 (96 hour): 1.2 mg/l (*Pseudokirchnerella subcapitata*)
Long Term	NOEL (21 days): 0.28 mg/L (*Daphnia magna*) NOEC (96 hour): 0.16 mg/L (*Pseudokirchnerella subcapitata*)

Persistence and degradability	Readily biodegradable.
Bioaccumulative potential	The product has no potential for bioaccumulation.
Mobility in soil	Not available
Results of PBT and vPvB assessment	Not classified as PBT or vPvB.
Other adverse effects	None known.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste treatment methods — Disposal should be in accordance with local, state or national legislation. Consult an accredited waste disposal contractor or the local authority for advice.

SECTION 14: TRANSPORT INFORMATION

	~~U.S. DOT~~	Sea transport (IMDG)	Air transport (ICAO/IATA)
UN number	1950	1950	1950
Proper Shipping Name	Aerosols, flammable	Aerosols, flammable	Aerosols, flammable
Transport hazard class(es)	2.1	2.1	2.1
Packing group	Not applicable	Not applicable	Not applicable
Environmental hazards	None assigned	None assigned	None assigned
Special precautions for user	None assigned	None assigned	None assigned

Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code: Not applicable

SECTION 15: REGULATORY INFORMATION

Safety, health and environmental regulations/legislation specific for the substance or mixture:

TSCA (Toxic Substance Control Act) - Inventory Status**:** All components listed or polymer exempt.

Designated Hazardous Substances and Reportable Quantities (40 CFR 302.4):

Chemical Name	CAS No.	Typical %wt.	RQ (Pounds)
n-Hexane	110-54-3	64	5000

SARA 311/312 - Hazard Categories:

☒ Fire ☒ Sudden Release ☐ Reactivity ☒ Immediate (acute) ☒ Chronic (delayed)

SARA 313 - Toxic Chemicals (40 CFR 372):

Chemical Name	CAS No.	Typical %wt.
n-Hexane	110-54-3	64

SARA 302 - Extremely Hazardous Substances(40 CFR 355):

Chemical Name	CAS No.	Typical %wt.	TPQ (pounds)
None	----	----	----

California Proposition 65 List:

Chemical Name	CAS No.	Type of Toxicity
None	------	--------

SECTION 16: OTHER INFORMATION

The following sections contain revisions or new statements: 1-16.
Date of preparation: May 25, 2015

Hazard Statement(s) and Risk Phrases Listed in: SECTION 2:/ SECTION 3:

Hazard Statement(s)

- H220: Extremely flammable gas.
- H225: Highly flammable liquid and vapor.
- H226: Flammable liquid and vapour.
- H280: Contains gas under pressure; may explode if heated.
- H304: May be fatal if swallowed and enters airways.
- H315: Causes skin irritation.
- H336: May cause drowsiness or dizziness.
- H361: Suspected of damaging fertility or the unborn child.
- H372: Causes damage to organs through prolonged or repeated exposure:
- H373: May cause damage to organs through prolonged or repeated exposure:
- H401: Toxic to aquatic life.
- H412: Harmful to aquatic life with long lasting effects.

Training advice: None.

Disclaimer: We believe the statements, technical information and recommendations contained herein are reliable, but they are given without warranty or guarantee of any kind. The information contained in this document applies to this specific material as supplied. It may not be valid for this material if it is used in combination with any other materials. It is the user's responsibility to satisfy oneself as to the suitability and completeness of this information for the user's own particular use.