

Material Safety Data Sheet



Revision Date 13-Jun-2005

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product code DA6141
Product name HEADWAY
Recommended Use Lubricant
Supplier Drummond American Corporation
600 Corporate Woods Parkway
Vernon Hills, IL 60061
(847) 913-9313
Emergency telephone number (888) 426-4851

2. HAZARDS IDENTIFICATION

Emergency Overview

Flammable. Irritating to respiratory system. Irritating to eyes. Vapors may cause flash fire or explosion.

Color Clear

Odor Solvent

Form Aerosol

Aggravated Medical Conditions No information available
Principal Routes of Exposure Eyes. Skin contact. Inhalation. Ingestion.

Potential health effects

Eyes May cause the following effects: Irritation. Pain. Tearing. Reddening. Swelling. Stinging sensation. Feeling like that of fine dust in the eye.

Skin Repeated or prolonged exposure may cause skin irritation and dermatitis, due to degreasing properties of the product. Defatting.

Inhalation Harmful by inhalation. Long-term exposure may cause the following effects: Headaches. Dizziness. Nausea. Decreased blood pressure. Changes in heart rate. Cyanosis. Central nervous system effects. Lung damage.

Ingestion Harmful or fatal if swallowed. Corrosive. If ingested, severe burns of the mouth and throat, as well as a danger of perforation of the esophagus and the stomach.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS-No	Weight %
N-Hexane	110-54-3	40-70
Propane/Isobutane/N-Butane	68476-86-8	40-70

4. FIRST AID MEASURES

Eye contact	Flush eyes with plenty of water. Seek medical attention if irritation persists.
Skin contact	Wash off immediately with plenty of water. Remove and wash contaminated clothing before re-use. Call a physician immediately.
Ingestion	Immediate medical attention is required. Do not induce vomiting. Give victim a glass of water or milk. Call a physician or Poison Control Center immediately. Never give anything by mouth to an unconscious person.
Inhalation	Move to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Immediate medical attention is required.

5. FIRE FIGHTING MEASURES

Flash point °C	-104
Flash point °F	-156
Method	Seta closed cup
Autoignition temperature °C	No data available
Autoignition temperature °F	
Flammability Limits (% in Air)	
Upper	9.5
Lower	1.0
Specific Information for Aerosol Products	
Flame extension	Unknown
Flashback	Unknown

Suitable extinguishing media

Carbon dioxide (CO₂). Dry chemical. Foam. Water fog.

Extinguishing media which must NOT be used for safety reasons

No information available.

Special Fire-Fighting Procedures

Firefighters should wear NIOSH/MSHA approved (or equivalent) self-contained pressure-demand breathing apparatus and full protective clothing. Water should be used to cool closed containers to prevent pressure build-up and possible autoignition or explosion when exposed to extreme heat. Avoid breathing of vapors. Avoid skin and eye contact.

Fire and Explosion Hazards

Empty containers contain residue and/or vapors. Do not weld, cut, pressurize, braze, solder, drill, grind, or expose such containers to heat, sparks, flame, static electricity, or other sources of ignition. They may explode and cause injury or death. Vapors are heavier than air and may travel along the ground to an ignition source distant from material handling area. Possible ignition sources include pilot lights, flames, lighted cigarettes, heating elements, electric motors, sparks from electrical switches..

Sensitivity to shock

No information available.

Sensitivity to static discharge

No information available.

6. ACCIDENTAL RELEASE MEASURES

Methods for cleaning up

Dam and contain spill using sand or other inert material. Place in suitable container for disposal as hazardous waste.

7. HANDLING AND STORAGE

Handling

Thoroughly wash hands and exposed skin after handling. Keep in a well-ventilated place. Use only according to label directions. Handle empty containers as if they were full. Minimize skin contact. Avoid breathing vapors. Avoid contact with skin, eyes and clothing.

Storage

Keep away from open flames, hot surfaces and sources of ignition. Do not freeze.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure limits

Chemical Name	OSHA PEL (TWA)	OSHA PEL (Ceiling)	ACGIH OEL (TWA)	ACGIH OEL (STEL)
N-Hexane	1800 mg/m ³ 500 ppm	-	50 ppm 500 ppm other than n-hexane	1000 ppm other than n-hexane
Propane/Isobutane/N-Butane	-	-	-	N/D

Ventilation and Environmental Controls

Use enough ventilation, local exhaust at the work area, or both, to keep below the TLV's in the worker's breathing zone and the general area.

Hygiene measures

Wash hands before eating or using the washroom.

Personal protective equipment**Other precautions**

Avoid contact with skin, eyes and clothing

Respiratory protection

If the exposure limits are exceeded, a NIOSH/MSHA approved respirator is recommended. Wear a positive-pressure supplied-air respirator. Seek professional advise prior to respirator selection and use.

Hand protection

The following glove(s) must be worn: Chemical resistant gloves. Consult glove manufacturer to determine the proper type for a specific operation.

Eye protection

Wear safety glasses with side shields. Face shield is recommended.

Skin and body protection

Impervious clothing.

Other Protective Clothing

Impermeable clothing should be worn.

Other Protective Equipment

Wear appropriate clothing to prevent skin contact. The following items should be worn when using this product:
Rubber boots.

9. PHYSICAL AND CHEMICAL PROPERTIES

Form	Aerosol	Color	Clear
Odor	Solvent	Odor Threshold	No information available
pH	No data available	Specific Gravity	0.6296
Vapor pressure	30-40	Vapor density	>Air
Evaporation Rate	> 1 (ether = 1)	VOC Content	94.8 %
Water solubility	Negligible	Partition Coefficient (n-octanol/water)	No data available
		Boiling point/range °C	-41 - 70
Boiling point/range °F	-43 - 159	Melting point/range °C	0
Melting point/range °F	32	Flash point °C	-104
Flash point °F	-156		

10. STABILITY AND REACTIVITY

Stability

Stable under normal conditions.

Conditions to avoid

Contact with ignition sources, hot-glowing surfaces, electrical arcs, sparks, and open flame.

Materials to avoid

Strong acids. Oxidizers. Amines. Alkalis.

Hazardous decomposition products

Carbon oxides. Nitrogen oxide. Chlorine. Chlorides. Phosgene .

Polymerization

Will not occur.

Synergistic Products

No information available.

11. TOXICOLOGICAL INFORMATION

Component Information

Chemical Name	LD50 (oral,rat)	LD50 (dermal,rat/rabbit)	LC50 (inhalation,rat)
<i>N-Hexane</i> 110-54-3	28710 mg/kg	-	48000 ppm

Propane/Isobutane/N-Butane 68476-86-8	-	-	-
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Potential health effects**Sensitization**

No information available.

Chronic toxicity

No information available.

Mutagenic effects

No information available.

Teratogenic effects

No information available

Reproductive toxicity

No information available

Target Organ Effects

Long term exposure to vapor may cause kidney damage. Long term exposure to vapor may cause lung damage.

Carcinogenic effects

See table below

Chemical Name	ACGIH OEL - Carcinogens	IARC	NTP - Known Carcinogens	NTP - Suspected Human Carcinogens	OSHA RTK Carcinogens
N-Hexane	Not Listed	Not Listed	Not Listed	Not Listed	Not Listed
Propane/Isobutane/N-Butane	Not Listed	Not Listed	Not Listed	Not Listed	Not Listed

12. ECOLOGICAL INFORMATION**Aquatic toxicity**

N-Hexane

Water Flea Data*water flea LC50=3.87 mg/L (48 h)***13. DISPOSAL CONSIDERATIONS****Waste from residues / unused products**

Dispose in accordance with federal, state, and local regulations.

14. TRANSPORT INFORMATION**DOT**

Consumer commodity (Propane/Isobutane/N-Butane),ORM-D,

TDG

AEROSOLS(Propane/Isobutane/N-Butane), Class 2.1,,UN1950,PG

IMDG/IMO

Aerosols(Propane/Isobutane/N-Butane),UN1950,PG

IATA

Aerosols, flammable, (Propane/Isobutane/N-Butane),UN1950
Hazard Class 2.1

MEX

UN1950 Aerosols(Propane/Isobutane/N-Butane),2.2,

15. REGULATORY INFORMATION

Chemical Name	US EPA SARA 313 Emission Reporting
N-Hexane	Listed

State Regulations

Chemical Name	New Jersey - RTK	Pennsylvania - RTK	California Prop. 65
N-Hexane	Not Listed	Listed	Not Listed
Propane/Isobutane/N-Butane	Not Listed	Not Listed	Not Listed

International Inventories

Chemical Name	EINECS	DSL	NDSL	TSCA
N-Hexane	X	X	-	X
Propane/Isobutane/N-Butane	X	X	-	X

CPRC

This product has been classified in accordance with the hazard criteria of the Controlled Product Regulations and the MSDS contains all of the information required by the Controlled Product Regulations

16. OTHER INFORMATION

NFPA		HMIS	
Health	-	Health	1
Flammability	-	Flammability	4
Reactivity	-	Physical Hazard	0

Reason for revision No information available.

Prepared By T. Heidorn, MSDS Project Lead

The information accumulated herein is believed to be accurate, but is not warranted to be, whether originating with the company or not. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances.