

## NGSH-220

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### SECTION 1. IDENTIFICATION

Product name : NGSH-220  
Article-No. : 340517  
Other means of identification : No data available

#### Manufacturer or supplier's details

Company name of supplier : Klüber Lubrication NA LP  
9010 County Road 2120  
Tyler, Texas 75707  
USA  
Phone: +1 903 534-8021  
Fax: +1 903 581-4376

32 Industrial Drive  
Londonderry, NH 03053  
USA  
Phone: +1 603 647-4104  
Fax: +1 603 647-4106

E-mail address of person responsible for the SDS : mcm@us.kluber.com  
Material Compliance Management

Emergency telephone number : +1-517-545-7070 NCEC

#### Recommended use of the chemical and restrictions on use

Recommended use : Lubricating oil  
Restrictions on use : Restricted to professional users.

### SECTION 2. HAZARDS IDENTIFICATION


#### GHS classification in accordance with the Hazardous Products Regulations

Skin sensitisation : Category 1  
Reproductive toxicity : Category 2

#### GHS label elements

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Hazard pictograms : 

Signal word : Warning

Hazard statements : May cause an allergic skin reaction.  
Suspected of damaging fertility.

Precautionary statements : **Prevention:**  
Obtain special instructions before use.  
Avoid breathing vapours.  
Wear protective gloves/ protective clothing/ eye protection/ face protection.  
**Response:**  
IF exposed or concerned: Get medical advice/ attention.  
**Storage:**  
Store locked up.  
**Disposal:**  
Dispose of contents/ container to an approved waste disposal plant.

**Other hazards**  
None known.

**SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

Substance / Mixture : Mixture

Chemical nature : ester oil  
Synthetic hydrocarbon oil

**Components**

Chemical name	Common Name/Synonym	CAS-No.	Concentration (% w/w)
Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene	Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene	68411-46-1	Trade secret** ( $\geq 1 - < 5$ *)
2,5-bis(octyldithio)-1,3,4-thiadiazole	2,5-bis(octyldithio)-1,3,4-thiadiazole	13539-13-4	Trade secret** ( $\geq 0.1 - < 1$ *)

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\* Actual concentration or concentration range is withheld as a trade secret

**SECTION 4. FIRST AID MEASURES**

- If inhaled : Obtain medical attention.  
Remove person to fresh air. If signs/symptoms continue, get medical attention.  
Keep patient warm and at rest.  
If unconscious, place in recovery position and seek medical advice.  
Keep respiratory tract clear.  
If breathing is irregular or stopped, administer artificial respiration.
- Obtain medical attention.  
Remove person to fresh air. If signs/symptoms continue, get medical attention.  
Keep patient warm and at rest.  
If unconscious, place in recovery position and seek medical advice.  
Keep respiratory tract clear.  
If breathing is irregular or stopped, administer artificial respiration.
- In case of skin contact : Take off all contaminated clothing immediately.  
Get medical attention immediately if irritation develops and persists.  
Wash clothing before reuse.  
Thoroughly clean shoes before reuse.  
Wash off immediately with plenty of water.
- Take off all contaminated clothing immediately.  
Get medical attention immediately if irritation develops and persists.  
Wash clothing before reuse.  
Thoroughly clean shoes before reuse.  
Wash off immediately with plenty of water.
- In case of eye contact : Rinse immediately with plenty of water, also under the eyelids, for at least 10 minutes.  
If eye irritation persists, consult a specialist.
- Rinse immediately with plenty of water, also under the eyelids, for at least 10 minutes.  
If eye irritation persists, consult a specialist.
- If swallowed : Move the victim to fresh air.  
If unconscious, place in recovery position and seek medical advice.  
Keep respiratory tract clear.

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Do NOT induce vomiting.  
Obtain medical attention.  
Rinse mouth with water.  
Never give anything by mouth to an unconscious person.

Move the victim to fresh air.  
If unconscious, place in recovery position and seek medical advice.  
Keep respiratory tract clear.  
Do NOT induce vomiting.  
Obtain medical attention.  
Rinse mouth with water.  
Never give anything by mouth to an unconscious person.

Most important symptoms and effects, both acute and delayed : May cause an allergic skin reaction.  
Allergic appearance  
May cause an allergic skin reaction.  
Allergic appearance

Notes to physician : The first aid procedure should be established in consultation with the doctor responsible for industrial medicine.  
The first aid procedure should be established in consultation with the doctor responsible for industrial medicine.

**SECTION 5. FIREFIGHTING MEASURES**

Suitable extinguishing media : Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Unsuitable extinguishing media : High volume water jet

High volume water jet

Hazardous combustion products : Carbon oxides  
Nitrogen oxides (NOx)

Carbon oxides  
Nitrogen oxides (NOx)

Further information : Standard procedure for chemical fires.  
Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

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Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus. Use personal protective equipment. Exposure to decomposition products may be a hazard to health.

In the event of fire, wear self-contained breathing apparatus. Use personal protective equipment. Exposure to decomposition products may be a hazard to health.

**SECTION 6. ACCIDENTAL RELEASE MEASURES**

Personal precautions, protective equipment and emergency procedures : Evacuate personnel to safe areas. Use personal protective equipment. Ensure adequate ventilation. Do not breathe vapours or spray mist. Refer to protective measures listed in sections 7 and 8. Evacuate personnel to safe areas. Use personal protective equipment. Ensure adequate ventilation. Do not breathe vapours or spray mist. Refer to protective measures listed in sections 7 and 8.

Environmental precautions : Do not allow contact with soil, surface or ground water. Prevent further leakage or spillage if safe to do so. If the product contaminates rivers and lakes or drains inform respective authorities.

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Methods and materials for containment and cleaning up : Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).

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**SECTION 7. HANDLING AND STORAGE**

Advice on safe handling : Do not breathe vapours or spray mist. Avoid contact with skin and eyes. For personal protection see section 8.

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Persons with a history of skin sensitisation problems or asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this mixture is being used.

Smoking, eating and drinking should be prohibited in the application area.

Wash hands and face before breaks and immediately after handling the product.

Do not get in eyes or mouth or on skin.

Do not get on skin or clothing.

Do not ingest.

Do not repack.

Do not re-use empty containers.

These safety instructions also apply to empty packaging which may still contain product residues.

Keep container closed when not in use.

Do not breathe vapours or spray mist.

Avoid contact with skin and eyes.

For personal protection see section 8.

Persons with a history of skin sensitisation problems or asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this mixture is being used.

Smoking, eating and drinking should be prohibited in the application area.

Wash hands and face before breaks and immediately after handling the product.

Do not get in eyes or mouth or on skin.

Do not get on skin or clothing.

Do not ingest.

Do not repack.

Do not re-use empty containers.

These safety instructions also apply to empty packaging which may still contain product residues.

Keep container closed when not in use.

Conditions for safe storage

: Store in original container.  
Keep container closed when not in use.  
Keep in a dry, cool and well-ventilated place.  
Containers which are opened must be carefully resealed and kept upright to prevent leakage.  
Store in accordance with the particular national regulations.  
Keep in properly labelled containers.

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**SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

**Components with workplace control parameters**

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
White mineral oil (petroleum)	8042-47-5	TWA (Mist)	5 mg/m3	CA AB OEL (2009-04-30)
		STEL (Mist)	10 mg/m3	CA AB OEL (2009-04-30)
		TWAEV (Mist)	5 mg/m3	CA QC OEL (2012-11-28)
		STEV (Mist)	10 mg/m3	CA QC OEL (2012-11-28)
		TWA (Mist)	1 mg/m3	CA BC OEL (2012-04-20)
		TWA (Mist)	1 mg/m3	CA BC OEL (2021-01-04)
		TWA (Inhalable particulate matter)	5 mg/m3	ACGIH (2013-03-01)
Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based	72623-86-0	TWA (Mist)	5 mg/m3	CA AB OEL (2009-04-30)
		STEL (Mist)	10 mg/m3	CA AB OEL (2009-04-30)
		TWAEV (Mist)	5 mg/m3	CA QC OEL (2012-11-28)
		STEV (Mist)	10 mg/m3	CA QC OEL (2012-11-28)
		TWA (Mist)	1 mg/m3	CA BC OEL (2021-01-04)
		TWA (Inhalable particulate matter)	5 mg/m3	ACGIH (2013-03-01)

Contains no substances with occupational exposure limit values.

**Engineering measures** : Handle only in a place equipped with local exhaust (or other appropriate exhaust).

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**Personal protective equipment**

- Respiratory protection : Not required; except in case of aerosol formation.
- Filter type : Filter type A-P
- Hand protection
- Material : Nitrile rubber
  - Break through time : > 10 min
  - Protective index : Class 1
- Remarks : Wear protective gloves. The break through time depends amongst other things on the material, the thickness and the type of glove and therefore has to be measured for each case.
- Eye protection : Safety glasses with side-shields
- Skin and body protection : Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place.
- Protective measures : The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.
- Hygiene measures : Wash face, hands and any exposed skin thoroughly after handling.  
Wash face, hands and any exposed skin thoroughly after handling.

**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

- Appearance : liquid
- Colour : yellow
- Odour : characteristic
- Odour Threshold : No data available
- pH : Not applicable



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Melting point/range : No data available

Boiling point/boiling range : No data available

Flash point : 250 °C  
Method: open cup

Evaporation rate : No data available

Flammability (solid, gas) : Not applicable

Self-ignition : No data available

Upper explosion limit / Upper flammability limit : No data available

Lower explosion limit / Lower flammability limit : No data available

Vapour pressure : < 0.001 hPa (20 °C)

Relative vapour density : No data available

Relative density : 0.890 (20 °C)  
Reference substance: Water  
The value is calculated

Bulk density : No data available

Solubility(ies)  
Water solubility : insoluble

Solubility in other solvents : No data available

Partition coefficient: n-octanol/water : No data available

Auto-ignition temperature : 400 °C

Decomposition temperature : No data available

Viscosity  
Viscosity, dynamic : No data available

Viscosity, kinematic : 220 mm<sup>2</sup>/s ( 40 °C)

Explosive properties : Not explosive

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Oxidizing properties : No data available

Sublimation point : No data available

**SECTION 10. STABILITY AND REACTIVITY**

Reactivity : No hazards to be specially mentioned.

Chemical stability : Stable under normal conditions.

Possibility of hazardous reactions : No dangerous reaction known under conditions of normal use.

Conditions to avoid : No conditions to be specially mentioned.

Incompatible materials : No materials to be especially mentioned.

Hazardous decomposition products : No decomposition if stored and applied as directed.

**SECTION 11. TOXICOLOGICAL INFORMATION**

**Acute toxicity**

**Product:**

Acute oral toxicity : Remarks: This information is not available.

Acute inhalation toxicity : Remarks: This information is not available.

Acute dermal toxicity : Symptoms: Redness, Local irritation

Symptoms: Redness, Local irritation

**Components:**

**Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene:**

Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg  
Method: OECD Test Guideline 401

Acute dermal toxicity : LD50 (Rat): > 2,000 mg/kg  
Method: OECD Test Guideline 402  
Assessment: The substance or mixture has no acute dermal toxicity

**2,5-bis(octyldithio)-1,3,4-thiadiazole:**

Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg

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Acute inhalation toxicity : Assessment: The component/mixture is moderately toxic after short term inhalation.

Acute dermal toxicity : LD50 (Rabbit): > 2,000 mg/kg

**Skin corrosion/irritation**

**Product:**

Remarks : This information is not available.

**Components:**

**Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene:**

Species : Rabbit  
Assessment : No skin irritation  
Method : OECD Test Guideline 404  
Result : No skin irritation

**2,5-bis(octyldithio)-1,3,4-thiadiazole:**

Species : Rabbit  
Assessment : Irritating to skin.  
Result : Irritating to skin.

**Serious eye damage/eye irritation**

**Product:**

Remarks : This information is not available.

**Components:**

**Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene:**

Species : Rabbit  
Result : No eye irritation  
Assessment : No eye irritation  
Method : OECD Test Guideline 405

**2,5-bis(octyldithio)-1,3,4-thiadiazole:**

Species : Rabbit  
Result : No eye irritation  
Assessment : No eye irritation

**Respiratory or skin sensitisation**

**Product:**

Remarks : This information is not available.

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**Components:**

**Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene:**

Species : Guinea pig  
Assessment : Did not cause sensitisation on laboratory animals.  
Method : OECD Test Guideline 406  
Result : Did not cause sensitisation on laboratory animals.

**2,5-bis(octyldithio)-1,3,4-thiadiazole:**

Species : Guinea pig  
Assessment : May cause sensitisation by skin contact.  
Result : May cause sensitisation by skin contact.

**Germ cell mutagenicity**

**Product:**

Genotoxicity in vitro : Remarks: No data available  
Genotoxicity in vivo : Remarks: No data available

**Carcinogenicity**

**Product:**

Remarks : No data available

**Reproductive toxicity**

**Product:**

Effects on fertility : Remarks: No data available  
Effects on foetal development : Remarks: No data available

**Components:**

**Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene:**

Reproductive toxicity - Assessment : - Fertility -  
Some evidence of adverse effects on sexual function and fertility, based on animal experiments.

**STOT - single exposure**

**Product:**

Remarks : No data available

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**STOT - repeated exposure**

**Product:**

Remarks : No data available

**Repeated dose toxicity**

**Product:**

Remarks : This information is not available.

**Aspiration toxicity**

**Product:**

This information is not available.

**Further information**

**Product:**

Remarks : Information given is based on data on the components and the toxicology of similar products.

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**SECTION 12. ECOLOGICAL INFORMATION**

**Ecotoxicity**

**Product:**

Toxicity to fish :  
Remarks: Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Remarks: Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Toxicity to daphnia and other aquatic invertebrates :  
Remarks: No data available

Toxicity to algae/aquatic plants :  
Remarks: No data available

Toxicity to microorganisms :  
Remarks: No data available

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**Components:**

**Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene:**

Toxicity to fish : LC50 (Danio rerio (zebra fish)): > 100 mg/l  
Exposure time: 96 h  
Test Type: static test  
Method: OECD Test Guideline 203

Toxicity to daphnia and other : EC50 (Daphnia magna (Water flea)): 51 mg/l  
aquatic invertebrates : Exposure time: 48 h  
Test Type: static test  
Method: OECD Test Guideline 202

Toxicity to algae/aquatic : EC50 (Desmodesmus subspicatus (green algae)): > 100 mg/l  
plants : Exposure time: 72 h  
Test Type: static test  
Method: OECD Test Guideline 201

**2,5-bis(octylidithio)-1,3,4-thiadiazole:**

**Ecotoxicology Assessment**

Chronic aquatic toxicity : May cause long lasting harmful effects to aquatic life.

**Persistence and degradability**

**Product:**

Biodegradability : Remarks: No data available

Physico-chemical : Remarks: No data available  
removability

**Components:**

**Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene:**

Biodegradability : aerobic  
Inoculum: activated sludge  
Result: Not rapidly biodegradable  
Biodegradation: 1 %  
Exposure time: 28 d  
Method: OECD Test Guideline 301B  
GLP: yes

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**Bioaccumulative potential**

**Product:**

Bioaccumulation : Remarks: This mixture contains no substance considered to be persistent, bioaccumulating and toxic (PBT).  
This mixture contains no substance considered to be very persistent and very bioaccumulating (vPvB).

Remarks: This mixture contains no substance considered to be persistent, bioaccumulating and toxic (PBT).  
This mixture contains no substance considered to be very persistent and very bioaccumulating (vPvB).

**Components:**

**Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene:**

Partition coefficient: n- : log Pow: > 5  
octanol/water

**Mobility in soil**

**Product:**

Mobility : Remarks: No data available

Distribution among : Remarks: No data available  
environmental compartments

**Other adverse effects**

**Product:**

Additional ecological : Harmful to aquatic life with long lasting effects.  
information

Harmful to aquatic life with long lasting effects.

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**SECTION 13. DISPOSAL CONSIDERATIONS**

**Disposal methods**

Waste from residues : The product should not be allowed to enter drains, water courses or the soil.  
Do not dispose of with domestic refuse.  
Dispose of as hazardous waste in compliance with local and national regulations.

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The product should not be allowed to enter drains, water courses or the soil.  
Do not dispose of with domestic refuse.  
Dispose of as hazardous waste in compliance with local and national regulations.

Contaminated packaging : Packaging that is not properly emptied must be disposed of as the unused product.  
Dispose of waste product or used containers according to local regulations.

Packaging that is not properly emptied must be disposed of as the unused product.  
Dispose of waste product or used containers according to local regulations.

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**SECTION 14. TRANSPORT INFORMATION**

**International Regulations**

**UNRTDG**

Not regulated as a dangerous good

**IATA-DGR**

Not regulated as a dangerous good

**IMDG-Code**

Not regulated as a dangerous good

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

Not applicable for product as supplied.

**National Regulations**

**TDG**

Not regulated as a dangerous good

**Special precautions for user**

Not applicable

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**SECTION 15. REGULATORY INFORMATION**

**NPRI Components** : Canadian National Pollutant Release Inventory (NPRI): No component is listed on NPRI.

**Canadian lists**

No substances are subject to a Significant New Activity Notification.

No substances are subject to a Significant New Activity Notification.



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**SECTION 16. OTHER INFORMATION**

**Full text of other abbreviations**

ACGIH	:	USA. ACGIH Threshold Limit Values (TLV)
CA AB OEL	:	Canada. Alberta, Occupational Health and Safety Code (table 2: OEL)
CA BC OEL	:	Canada. British Columbia OEL
CA QC OEL	:	Québec. Regulation respecting occupational health and safety, Schedule 1, Part 1: Permissible exposure values for airborne contaminants
ACGIH / TWA	:	8-hour, time-weighted average
CA AB OEL / TWA	:	8-hour Occupational exposure limit
CA AB OEL / STEL	:	15-minute occupational exposure limit
CA BC OEL / TWA	:	8-hour time weighted average
CA QC OEL / TWAEV	:	Time-weighted average exposure value
CA QC OEL / STEV	:	Short-term exposure value

AIIC - Australian Inventory of Industrial Chemicals; ANTT - National Agency for Transport by Land of Brazil; ASTM - American Society for the Testing of Materials; bw - Body weight; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; Nch - Chilean Norm; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NOM - Official Mexican Norm; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TDG - Transportation of Dangerous Goods; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative; WHMIS - Workplace Hazardous Materials Information System

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