



NO HEAT RESOURCES

Material Safety Data Sheet NO HEAT XFLOW DRAG REDUCER

Introductory Details
Date of preparation : 3rd November 2004

SECTION 1 : CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

1.1. Product Details

Product Identification : Drag Reducing Agent
Product / Trade Name : No Heat XFLOW
Chemical Name : N/A
Chemical Formula : N/A
Molar Mass : N/A
Chemical Family : N/A
Product Use : Flow improver agent

1.2 Company's Details

No Heat Resources Pte Ltd
202 Upper East Coast Road
#17-04
Singapore 455284

1.3 Manufacturing Plant

Prima Sierra Chemicals
1A, Jalan Bakti 1
Taman Mutiara Rini
81300 Skudai Johor Bahru
Malaysia

1.4 Emergency Telephone Numbers

Distributor/Company : +65 6441 9644
24 Hours Hotline : +65 9177 9744

Manufacturing Plant : +607 558 8166
Chemical Engineer : +019 727 2033

SECTION 2 : COMPOSITION / INFORMATION ON INGREDIENT

Chemical Name	CAS No.	Proportion (%)	Exposure Limit	Toxicity Data
Long-chain hydrocarbon polymer	N/A	60-70	N/A	N/A
Aromatic solvent	N/A	5-10	N/A	N/A
Aliphatic solvent	N/A	2-8	N/A	N/A

SECTION 3.0 : PHYSICAL AND CHEMICAL PROPERTIES

Appearance	: Blackish Liquid
Odour	: Mild Odor
Solubility	: Not soluble in water
Boiling Point	: 135 oC
Melting Point (0C)	: N/A
Vapour Pressure (mm of Hg at 25 0C)	: N/A
Percentage Volatiles	: 1-5%
Evaporation Rate	: 1
Vapour Density	: N/A
Specific Gravity	: 0.85-0.95
Flash point	: 150 oC
Autoignition temperature	: N/A
Flammable limit (%) and Other properties if applicable.	: N/A

SECTION 4 : HAZARD IDENTIFICATION

Inhalation	No Adverse health effects from inhalation.
Skin contact	Irritant.
Eye contact	Moderate to severe irritation and possible tissue damage to eye
Ingestion	Diarrhea may occur upon ingestion
Acute exposure	As above
Chronic exposure	Prolonged skin contact may cause moderate irritation
Special health precautions	None

SECTION 5 : FIRST AID MEASURES

Inhalation	Move to fresh air, consult physician if symptoms persist.
Skin contact	In case of contact, immediately flush skin with soap and water repeatedly for at least 15 minutes. Remove contaminated clothing and shoes. Wash clothing before reuse. Get medical attention if irritation develops or persists.
Eye contact	In case of contact, flush eyes with water repeatedly for at least 15 minutes. Get medical advice if irritation develops.
Ingestion	If large amounts were swallowed, give water to drink and several glasses of milk to induce vomiting. Get medical attention immediately
Note to physician	If serious ingestion continues, refer to a medical doctor.

SECTION 6 : FIRE FIGHTING MEASURES

Conditions of flammability	None
Hazardous combustion products	None
Explosion data	N/A
Extinguishing media	Carbon dioxide, foam, sand or water fog
Fire fighting procedures	None

SECTION 7 : ACCIDENTAL RELEASE MEASURE

Ventilate area of leak or spill. Wear appropriate personal protective equipment as specified in Section 9. Contain and recover liquid when possible. Collect liquid in an appropriate container or absorb with an inert material (e. g., vermiculite, dry sand, earth), and place in a chemical waste container. Do not use combustible materials, such as saw dust. Rinse copious amounts of water if small spillage occurred. Expended or used material may be disposed or down sewer with water flush.

SECTION 8 : HANDLING AND STORAGE

Store No Heat XFLOW in well-sealed metal containers. Protect containers from physical damage. Avoid using corroded containers which may effect the quality of No Heat FRA 200. Handle chemical properly to avoid handling spillage.

SECTION 9 : EXPOSURE CONTROL AND PERSONAL PROTECTION

Recommendations listed in this section indicate the type of equipment that will provide protection against overexposure to this product. Conditions of use, adequacy of engineering or other control measures, and actual exposures will dictate the need for specific protective devices at your workplace.

Ventilation system	Equivalent to outdoors
Respiratory protection	Not necessary
Skin/Eye protection	Wear chemical resistant gloves, chemical safety goggles, coveralls, and splash aprons.
Others	Wash hand thoroughly after use

SECTION 10 : STABILITY AND REACTIVITY

Chemical stability	Stable under normal conditions.
Conditions to avoid	Excessive Heating.
Incompatible substances	None.
Hazardous decomposition products	None.
Hazardous polymerization	Will not occur.

SECTION 11 : TOXICOLOGICAL INFORMATION

Effects of acute exposure	: See Section 3.
Effects of chronic exposure	: See Section 3.
Reproductive toxicity	: N/A
Toxicologically synergistic products	: N/A
Mutagenicity	: N/A
Teratogenicity	: N/A
Carcinogenicity	: N/A
Irritancy	: Yes

SECTION 12 : ECOLOGICAL INFORMATION

Mobility & Bioaccumulation	: Not soluble in water
Biodegradability	: N/A
Toxicity	: N/A

SECTION 13 : DISPOSAL INFORMATION

Although it is not hazardous, proper disposal is required in accordance with local regulations.

SECTION 14 : TRANSPORT INFORMATION

Shipping Name : None
PIN (UN / NA) : N/A
Primary classification : 3
Packing group : III

SECTION 15 : REGULATORY INFORMATION

RISK PHRASES

- R22 - Harmful if swallowed.
- R36 - Irritating to eyes.

SAFETY PHRASES

- S7/8 - Keep container tightly closed and dry
- S7/9 - Keep container tightly closed and well ventilated place
- S23 - Do not breathe gas/fumes/vapours
- S36/37/39 - Wear suitable protective clothing, gloves and eyes/ face protection

SECTION 16 : OTHER INFORMATION

NFPA Ratings:

Health : 1 Flammability : 1 Reactivity : 0

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