SAFETY DATA SHEET

Date: 25 March 2010 Version: 1.03 Replaces: 29 October 2007

1. Identification of the substance/preparation and company/undertaking

Product Name	Manalox 300
Use	Thickener for industrial formulations (eg inks)
Distributor	FedChem LLC 4620 Richmond Road Cleveland, OH 44128, USA
Phone	+1 216 464 6440 Hours: M-F 8AM-5PM EST
Email	jlundell@federalprocess.com
Emergency No	(Chemtrec): +1 703 527 3887

2. Hazards identification

Classification	None
Health hazards	Slightly irritating to skin.
Environmental hazards	None identified
Fire and explosion hazards	Non regulated

3. Composition/information on ingredients

Hazardous components	Conc (%)	EC No	CAS No	Classification
None				
Non-hazardous components				
Highly refined base oil	ca. 50	–	8042-47-5	None
Alkoxy aluminium chelate	ca. 50	–	CBI	None

4. First-aid measures

Inhalation	The components have a low vapour pressure, and inhalation is not expected unless misting or aerosolisation occurs. However, if dizzy, drowsy or overcome, remove patient from exposure and give fresh air and rest. Obtain medical attention immediately for symptoms of difficulty in breathing.
Skin contact	Remove contaminated clothing, and clean before re-use. In case of contact with skin wash affected area with soap and water. For severe contamination or if irritation occurs seek medical attention.
Eye contact	In case of contact with eyes, irrigate immediately with plenty of water for 10 to 15 minutes and seek medical advice. Refer to an eye specialist, even if there are no visible injuries.
Ingestion	If swallowed, wash out mouth thoroughly and give water to drink. Seek medical attention and show this safety data sheet. Do **not** induce vomiting. Look out for symptoms of aspiration, such as coughing, choking or gagging (see Section 11).
Medical treatment	Give symptomatic treatment and supportive therapy as

SAFETY DATA SHEET

indicated.

5. Fire-fighting measures

Fire and explosive properties	Non regulated.
Extinguishing media	Water mist or spray, alcohol foam, and carbon dioxide, are recommended. Water jets may spread liquid fires. Remove containers from fire or cool them with water.
Specific hazards	When burned product forms smoke and toxic fumes, such as oxides of carbon.
Protective equipment for fire fighters	Fire fighters should wear an approved self-contained breathingapparatus and full protective clothing.

6. Accidental release measures

Personal precautions	Ensure full personal protection during removal of large spillages, but particularly eye/face protection (safety glasses and visor) and gloves (See Section 8).
Environmental precautions	Stop the leak, and remove sources of ignition. Turn leaking containers leak-side up to prevent the escape of liquid. Prevent leakage of large quantities into the drainage system by bunding with sand or other absorbent material. In the event of large spills contact the emergency services and local authorities.
Method for cleaning up	Ventilate area and try to contain spill by diking with sand or other absorbent material. Collect spill for disposal by scooping up liquids, using a vacuum pump, or absorbing with sand or other approved absorbent materials and place in suitably labelled container for disposal in accordance with local and national regulations. Wash contaminated surfaces with detergent. Contact authorities, and waste-water treatment plant as appropriate if significant contamination occurs.

7. Handling and storage

Information for safe handling	Keep container closed when not in use. Care should be taken not to form mists or aerosols. If they occur, ensure adequate ventilation. Do not get liquid in eyes, or on skin or clothing. Wear protective clothing as in Section 8. Avoid rupture of containers or transfer systems. Product may be slippery if spilled.
Storage	Store in a cool, dry place. Keep away from sources of ignition and heat.

8. Exposure controls/personal protection

SAFETY DATA SHEET

Engineering measures	Ensure adequate ventilation. Extraction to remove vapours at source is recommended.
Personal protective equipment	Chemical resistant gloves (PVC) and safety goggles are recommended. Where more extensive contact may occur, wear suitable protective clothing (eg apron, sleeves, boots). Wear suitable respiratory protective equipment if exposure to levels above occupational exposure limit is likely. PPE manufacturers should be consulted.
UK occupational exposure limits (EH40)	Oil mist, mineral: long-term exposure limit (8 h TWA) 5 mg/m^3 short-term exposure limit (15 min ref. period) 10 mg/m^3

9. Physical and chemical properties

Appearance	Clear straw coloured liquid
Odour	Slight
pH	Not applicable
Pour point (base oil)	–20.6 °C
Boiling range	ca. 260 °C
Flash point	95 °C (Pensky Martens closed cup)
Explosive properties	No data available
Autoignition temp. (base oil)	220 °C
Oxidising properties	Not expected to be oxidising
Vapour pressure (base oil)	<0.1 mmHg at 21 °C
Relative density (water = 1)	0.95 at 25 °C
Solubility: in water	Practically insoluble
in organic solvents	Soluble in hydrocarbons
Partition coefficient	No data available
Viscosity at 25° C	140 cps
Rel. vapour density (base oil)	6.7

10. Stability and reactivity

Stable under recommended storage and handling conditions, in particular there is no hazardous polymerisation reaction.

Conditions to avoid	Avoid strong heat and sources of ignition such as open flames or sparks. The aluminium chelate reacts with water, so atmospheric moisture may lead to product degradation, although the reaction is not dangerous.
Materials to avoid	Avoid contact with water, and strong oxidising agents.
Hazardous decomposition products	Smoke, and oxides of carbon may be formed on combustion.

11. Toxicological information

SAFETY DATA SHEET

The components are not classified as dangerous substances. In particular, the aluminium chelate is not classified for acute toxicity, irritation, sensitisation, repeated-dose toxicity, or mutagenic effects.
Mutagenic effects (for neat aluminium complex): Ames test (Test method OECD 471 using Salmonella typhimurium): negative (with and without metabolic activation).
In vitro chromosome aberration test (Test method OECD 472 using human lymphocytes): Negative (with and without metabolic activation).
In vitro cell mutation test (Test method OECD 476 using mouse lymphoma L5178Y cells): Negative (with and without metabolic activation).
Aspiration of some mineral oils may lead to chemical pneumonitis, which is characterized by pulmonary edema and hemorrhage and may be fatal. Signs of lung involvement include increased respiratory rate, increased heart rate, and a bluish discoloration of the skin. Coughing, choking, and gagging are often noted at the time of aspiration. Gastrointestinal discomfort may develop, followed by vomiting with a further risk of aspiration.
The base oil has laxative properties and may result in abdominal cramps and diarrhea.
Highly refined base oils generally have LD_{50} values > 2000mg/kg, and no classification recommendations for irritation, sensitisation, repeated-dose toxicity (oral), mutagenicity, carcinogenicity, or reproductive effects, although aspiration may be a hazard for some (Concawe recomendations).

12. Ecological information

Ecotoxicological data have not been determined specifically for this product. Information given is based on knowledge of the components and the ecotoxicology of similar products.

Mobility	The product is a liquid. The base oil is expected to float on water. No component is volatile, so no contamination of the air compartment is expected. The aluminium chelate is water-reactive, and will hydrolyse to simple organic products and aluminium hydroxide.
Persistence/degradability	The aluminium chelate is readily biodegradable.
Bioaccumulation	Due to the hydrolysis and readily biodegradability no bioaccumulation of the aluminium chelate is expected.
Toxicity	Highly refined base-oils typically have L_{50} values greater than 1000 mg/l, and do not represent a long-term danger to the aquatic environment (Concawe recommendation). The aluminium chelate has an L_{50} (Daphnia, 48 h) of 55 mg/l.

13. Disposal considerations

Disposal must be in accordance with current national and local regulations. Chemical residues generally count as special waste. The disposal of the latter is regulated in the EC member countries through corresponding laws and regulations. We recommend that you contact either the authorities or approved waste disposal companies who will advise you on how to dispose of special waste.

Containers of this material may be hazardous when emptied due to solid or vapor residue. All hazard precautions given in this data sheet must be observed for empty containers

14. Transport information

SAFETY DATA SHEET

Not classified for transport.

15. Regulatory information

Classification and labelling according to EC Directives

Symbol and indication of danger: None

Risk phrases: None

Safety phrases: None

Contains: No statement required

Governing EU Directives:
EU Directive 67/548/EEC (Dangerous Substances Directive), and 99/45/EC (Dangerous Preparations Directive) with modifications.
This Safety Data Sheet is based on EU Directive EC 1907/2006.

Relevant UK legislation:
Chemicals (Hazard Information for Packaging for Supply) Regulations 2002.
Control of Substances Hazardous to Health Regulations 1999 SI 1999/437.
Health and Safety at Work Act 1974 c 37.
Personal Protective Equipment (EC Directive) Regulations SI 1992/3139.
Environmental Protection Act 1990 c 43.
The Environment Act 1995 c 25.
Special Waste Regulations 1996 SI 1996/972.
Carriage of Dangerous Goods by Road and Rail (Classification, Packaging and Labelling) Regulations.

Guidance:
The Compilation of Safety Data Sheets (Third Edition) (CHIP 3 Approved Code of Practice).
Approved Classification and Labelling Guide (Fifth Edition).
Approved Supply List. Information approved for the classification and labelling of substances and preparations dangerous for supply.
COSHH Essentials: Easy steps to chemical control.
Occupational Exposure Limits EH40.
Classification and labelling of petroleum substances according to the EU dangerous substances directive (CONCAWE recommendations – August 2001).

16. Other information

None