

The Valvoline Company

Date Prepared: 11/18/03

MSDS No: 510.0396512-001.001I

AUTO NANOWAX 1/55 GA EXPT A

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Material Identity

Product Name: AUTO NANOWAX 1/55 GA EXPT A

Company

The Valvoline Company
P.O. Box 14000
Lexington, KY 40512

Telephone Numbers

Emergency: 1-800-274-5263
Information: 1-859-357-7206

2. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient(s)	CAS Number	% (by weight)
WAX EMULSION		15.0- 25.0
ALIPHATIC PETROLEUM DISTILLATES	64741-66-8	46.0- 56.0
ALUMINUM SILICATE	66402-68-4	1.0- 9.0
POLY(DIMETHYLSILOXANE)	63148-62-9	1.2- 11.0
ALKYL QUATERNARY AMMONIUM BENTONITE	68953-58-2	1.0- 7.0
TETRAGLYCERYL MONOOLEATE	9007-48-1	1.0- 6.0
GLYCOL	107-21-1	4.0- 4.0
ALIPHATIC AMINES (INDISC)		1.0- 6.0

3. HAZARDS IDENTIFICATION

Potential Health Effects

Eye

Can cause eye irritation.

Skin

Can cause skin irritation. Passage of this material through the skin may be harmful.

Swallowing

Swallowing small amounts of this material during normal handling is not likely to cause harmful effects. Swallowing large amounts may be harmful. This material can get into the lungs during swallowing or vomiting. This results in lung inflammation and other lung injury.

Inhalation

Breathing of vapor or mist is possible. Breathing small amounts of this material during normal handling is not likely to cause harmful effects. Breathing large amounts may be harmful. Symptoms usually occur at air concentrations higher than the recommended exposure limits (See Section 8).

Symptoms of Exposure

Signs and symptoms of exposure to this material through breathing, swallowing, and/or passage of the material through the skin may include: stomach or intestinal upset (nausea, vomiting, diarrhea)

thirst, irritation (nose, throat, airways), runny nose, cough, central nervous system depression (dizziness, drowsiness, weakness, fatigue, nausea, headache, unconsciousness), muscle weakness, pain in the abdomen, lung edema (fluid buildup in the lung tissue), kidney damage, liver damage, lung damage.

Target Organ Effects

Exposure to this material (or a component) has been found to cause kidney damage in male rats. The mechanism by which this toxicity occurs is specific to the male rat and the kidney effects are not expected to occur in humans. Overexposure to this material (or its components) has been suggested as a cause of the following effects in laboratory animals, and may aggravate preexisting disorders of these organs in humans: nasal damage, eye damage, kidney damage, liver damage, lung damage.

Developmental Information

There are no data available for assessing risk to the fetus from maternal exposure to this material.

Cancer Information

Based on the available information, this material cannot be classified with regard to carcinogenicity. This material is not listed as a carcinogen by the International Agency for Research on Cancer, the National Toxicology Program, or the Occupational Safety and Health Administration.

Other Health Effects

This product contains amines which may react with nitrites or other nitrosating agents to form nitrosamines. Certain nitrosamines have been shown to cause cancer in laboratory animals. Nitrites should not be added to this material because this can result in formation of nitrosamines. Many nitrosamines cause cancer in laboratory animals.

Primary Route(s) of Entry

Inhalation, Skin absorption, Skin contact, Eye contact, Ingestion.

4. FIRST AID MEASURES

Eyes

If symptoms develop, immediately move individual away from exposure and into fresh air. Flush eyes gently with water for at least 15 minutes while holding eyelids apart; seek immediate medical attention.

Skin

Immediately flush skin with water for at least 15 minutes while removing contaminated clothing and shoes. Seek immediate medical attention. Wash clothing before reuse and decontaminate or discard contaminated shoes.

Swallowing

Seek medical attention. If individual is drowsy or unconscious, do not give anything by mouth; place individual on the left side with the head down. Contact a physician, medical facility, or poison control center for advice about whether to induce vomiting. If possible, do not leave individual unattended.

Inhalation

If symptoms develop, move individual away from exposure and into

fresh air. If symptoms persist, seek medical attention. If breathing is difficult, administer oxygen. Keep person warm and quiet; seek immediate medical attention.

Note to Physicians

This material is an aspiration hazard. Potential danger from aspiration must be weighed against possible oral toxicity (See Section 3 - Swallowing) when deciding whether to induce vomiting. Preexisting disorders of the following organs (or organ systems) may be aggravated by exposure to this material: respiratory tract skin, lung (for example, asthma-like conditions), liver, kidneys, eye.

5. FIRE FIGHTING MEASURES

Flash Point

96.0 F (35.5 C)

Explosive Limit

No data

Autoignition Temperature

No data

Hazardous Products of Combustion

May form: aldehydes, carbon dioxide and carbon monoxide, silicates, various hydrocarbons.

Fire and Explosion Hazards

Vapors are heavier than air and may travel along the ground or be moved by ventilation and ignited by heat, pilot lights, other flames and ignition sources at locations distant from material handling point. Never use welding or cutting torch on or near drum (even empty) because product (even just residue) can ignite explosively.

Extinguishing Media

regular foam, carbon dioxide, dry chemical.

Fire Fighting Instructions

Water may be used to keep fire-exposed containers cool until fire is out. Wear a self-contained breathing apparatus with a full facepiece operated in the positive pressure demand mode with appropriate turn-out gear and chemical resistant personal protective equipment. Refer to the personal protective equipment section of this MSDS.

NFPA Rating

Health - 2, Flammability - 2, Reactivity - 0

6. ACCIDENTAL RELEASE MEASURES

Small Spill

Eliminate all sources of ignition such as flares, flames (including pilot lights), and electrical sparks. Absorb liquid on vermiculite, floor absorbent or other absorbent material. Persons not wearing proper personal protective equipment should be excluded from area of spill.

Large Spill

Prevent run-off to sewers, streams or other bodies of water. If run-off occurs, notify proper authorities as required, that a spill has occurred. Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed. Eliminate all ignition sources (flares, flames, including pilot lights, electrical sparks).

7. HANDLING AND STORAGE

Handling

Containers of this material may be hazardous when emptied. Since emptied containers retain product residues (vapor, liquid, and/or solid), all hazard precautions given in the data sheet must be observed. All five gallon pails and larger metal containers including tank cars and tank trucks should be grounded and/or bonded when material is transferred. Avoid prolonged or repeated contact.

Storage

Do not store near extreme heat, open flame, or sources of ignition.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Eye Protection

Chemical splash goggles and face shield (8" min.) in compliance with OSHA regulations are advised; however, OSHA regulations also permit other type safety glasses. (Consult your industrial hygienist.)

Skin Protection

Wear impervious gloves (consult your safety equipment supplier). To prevent skin contact, wear impervious clothing and boots.

Respiratory Protections

If workplace exposure limit(s) of product or any component is exceeded (See Exposure Guidelines), a NIOSH/MSHA approved air supplied respirator is advised in absence of proper environmental control. OSHA regulations also permit other NIOSH/MSHA respirators (negative pressure type) under specified conditions (consult your industrial hygienist). Engineering or administrative controls should be implemented to reduce exposure.

Engineering Controls

Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below TLV(s).

Exposure Guidelines

Component

WAX EMULSION

No exposure limits established

ALIPHATIC PETROLEUM DISTILLATES (64741-66-8)

No exposure limits established

ALUMINUM SILICATE (66402-68-4)

No exposure limits established

POLY(DIMETHYLSILOXANE) (63148-62-9)
No exposure limits established

ALKYL QUATERNARY AMMONIUM BENTONITE (68953-58-2)
No exposure limits established

TETRAGLYCERYL MONOOLEATE (9007-48-1)
No exposure limits established

GLYCOL (107-21-1)
OSHA VPEL 50.000 ppm - Ceiling
ACGIH TLV 100.000 mg/m3 - Ceiling as an aerosol

ALIPHATIC AMINES (INDISC)
No exposure limits established

9. PHYSICAL AND CHEMICAL PROPERTIES

Boiling Point
No data

Vapor Pressure
(for component) < 5.000 mmHg

Specific Vapor Density
No data

Specific Gravity
.907 @ 60.00 F

Liquid Density
7.600 lbs/gal @ 60.00 F
7.600 lbs/gal @ 60.00 F

Percent Volatiles (Including Water)
No data

Evaporation Rate
No data

Appearance
No data

State
LIQUID

Physical Form
No data

Color
BEIGE

Odor
FRUITY

pH
No data

10. STABILITY AND REACTIVITY

Hazardous Polymerization

Product will not undergo hazardous polymerization.

Hazardous Decomposition

May form: acrolein, carbon dioxide and carbon monoxide, formaldehyde, silicates, various hydrocarbons, Material decomposes between 400 and 500 degrees F.

Chemical Stability

Stable.

Incompatibility

Avoid contact with: halogenated hydrocarbons, hypochlorites, strong organic acids, strong oxidizing agents.

11. TOXICOLOGICAL INFORMATION

Chronic/Carcinogenicity

One study with morpholine in laboratory animals produced cancer, while others have not. The tumors in the one study may have resulted from exposure to N-nitrosomorpholine, an animal carcinogen. N-nitrosomorpholine can occur as a contaminant in morpholine or as a result of the interaction of morpholine with nitrite of unknown origin. There is no evidence that morpholine causes cancer in humans.

12. ECOLOGICAL INFORMATION

No data

13. DISPOSAL CONSIDERATION

Waste Management Information

Dispose of in accordance with all applicable local, state and federal regulations.

14. TRANSPORT INFORMATION

DOT Information - 49 CFR 172.101

DOT Description:

FLAMMABLE LIQUIDS, N.O.S., 3, UN1993, III

Container/Mode:

CASES/SURFACE - NO EXCEPTIONS

NOS Component:

ALIPHATIC HYDROCARBONS (STODDARD TYPE)

RQ (Reportable Quantity) - 49 CFR 172.101

Not applicable

15. REGULATORY INFORMATION

US Federal Regulations

TSCA (Toxic Substances Control Act) Status
TSCA (UNITED STATES) The intentional ingredients of this product are listed.

CERCLA RQ - 40 CFR 302.4

Component	Component
ETHYLENE GLYCOL	5000

SARA 302 Components - 40 CFR 355 Appendix A
None

Section 311/312 Hazard Class - 40 CFR 370.2

Immediate(X) Delayed(X) Fire(X) Reactive() Sudden
Release of Pressure()

SARA 313 Components - 40 CFR 372.65

Section 313 Component(s)	CAS Number
ETHYLENE GLYCOL	107-21-1

International Regulations

Inventory Status

EINECS (EUROPE) The intentional ingredients of this product are listed.

NDSL (CANADA - NDSL) The intentional ingredients of this product are listed.

State and Local Regulations

California Proposition 65
None

New Jersey RTK Label Information

ETHYLENE GLYCOL 107-21-1

Pennsylvania RTK Label Information

1,2-ETHANEDIOL 107-21-1

16. OTHER INFORMATION

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.

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