



TROYSOL™ AFL

Product No. 2311

Antifoam/Defoamer and leveling additive for non-aqueous systems

Description

Troysol™ AFL is a silicone-free additive in liquid form to improve bubble release, reduce pigment floating and promote surface smoothness of non-aqueous systems.

Application/ Use

Troysol AFL is effective in solvent-based and other non-aqueous systems where surface tension-related problems such as foaming, bubble retention, bridging, and pigment floating are encountered. Typical applications include:

- Improving bubble release in coatings applied by dip, curtain coater, flow coater, roll coater, airless spray, etc.
- Preventing foam buildup during manufacture or filling
- Preventing bubble entrapment over wood, masonry, and other porous substrates
- Preventing bridging over holes, grillwork, etc., in dip applications
- Reducing pigment floating and flooding in multi-pigmented systems

Systems which have benefited from the incorporation of Troysol AFL include:

- Roller applied alkyd, urethane, and chlorinated rubber coatings
- Nitrocellulose, acrylic, and vinyl lacquers
- Baking alkyd, polyester, and acrylic primers and topcoats
- Polyester gel coats
- Solvent gravure and silk screening inks
- High build thixotropic coatings
- Two-component epoxy and urethane systems
- Moisture curing urethanes

Highlights

- High efficiency at low levels
- Wide spectrum applicability
- Easily incorporated with mild agitation
- Silicone-free, minimal side effects
- Eliminates film defects due to bubbling, floating, etc.

Physical Properties

The following are typical properties of Troysol AFL; they are not to be considered product specifications.

Appearance:	Clear amber liquid
Specific Gravity, 25°C:	0.87
Color (Gardner)	6
Viscosity, 25°C	A4
% Non-volatile (Typical)	30
Flash Point (ASTM D3278-96)	41°C (105°F)

Function/ Activity

Troysol AFL is generally effective at levels of 0.2% - 0.6% by weight of final formulation. Optimum levels for specific formulations should be determined by laboratory evaluation.

Formulating
Considerations

Troysol™ AFL may be added during either the pigment dispersion or let-down stage of manufacture, and may also be post-added. In general, anti-floating efficiency is maximized by inclusion in the grind, while defoaming activity is improved by incorporation in the let-down phase. Troysol AFL may occasionally induce cratering in highly sensitive systems. If this occurs, we suggest evaluation of Troysol 307 as an alternative. Addition of Troysol AFL to bright aluminum coatings may cause de-leafing of the pigment.

Regulatory
Considerations

Toxicity

No data is available on this product. For additional information contact Troy Chemical Corporation.

Ecotoxicity

This product is toxic to aquatic organisms. Do not apply directly to water or wetlands. Do not contaminate water when disposing of equipment washwaters.

Petroleum distillates: No test data available. However, if spilled, this product and any contaminated soil or water may be harmful to human, animal, and aquatic life. Also, the coating action associated with petroleum and petroleum products can be harmful or fatal to aquatic life and waterfowl.

Data on 1,2,4-trimethylbenzene is as follows:

LC50 (fathead minnow, 96 hr) – 7.72 mg/L.

Data on 1,3,5-trimethylbenzene is as follows:

LC50 (goldfish, 96 hr) – 12.5 mg/L.

Zinc compound: Metal compounds are known to persist in the environment.

Environmental Fate

This product may cause adverse environmental impact. Avoid contamination of streams and sewers.

Petroleum distillates: No test data available. In the aquatic environment, petroleum distillates can cause oxygen depletion resulting in harmful or fatal effects to fish and wildlife.

Zinc compound: Metal compounds are known to persist in the environment.

Chemical
Inventories

This product, or its components, are listed on, or are exempt from:

Country	Regulation
United States	TSCA
Canada	DSL/ NDSL
Europe	EINECS
Australia	AICS
Korea	ECL
Philippines	PICCS
China	IECSC

Labeling

CAUTION: Exposure may cause skin and eye irritation. Overexposure will cause dizziness, drowsiness, headache, nausea and cracking or drying of skin. Avoid contact with skin. Avoid breathing mist or vapor. Wear goggles, face shield or safety glasses, protective clothing and chemical resistant rubber gloves when handling. Wash thoroughly after handling. Do not take internally.

EU Regulations

N - Dangerous for the environment

R10 – Flammable.

R51/53 – Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment

Handling,
Storage, Health
And Safety

Avoid contact with skin, eyes, or clothing. Avoid breathing vapor or mist. Wash thoroughly after handling. Keep container tightly closed. Use only with adequate ventilation. "Empty" containers retain product residue (liquid and/or vapor) and can be dangerous. DO NOT PRESSURIZE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND, OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION. THEY MAY EXPLODE AND CAUSE INJURY OR DEATH. Empty drums should be completely drained, properly bunged and promptly returned to a drum reconditioner, or properly disposed of. Store away from incompatible substances in a cool, dry, ventilated area. Plastic drums are non-conductive and, appropriate safety measures must be taken to prevent possible ignition when filling or dispensing flammable or combustible liquids. Storage and dispensing operations must comply with appropriate regulations (such as NFPA).

Observe all Federal, State, and Local regulations when storing or disposing of this substance.

Emergency Overview: Troysol™ AFL is a clear amber liquid with a solvent odor. Combustible liquid. May cause eye, skin and respiratory irritation. If swallowed, aspiration into the lungs can cause lung damage. Excessive inhalation may be harmful. Toxic to aquatic organisms.

Shipping And
Packaging

Troysol AFL is packaged in:

Shipping Container	Net Weight
Pail	35 lbs/16 kg
Drums	100 lbs/45 kg
Drums	400 lbs/181 kg

DOT

Shipping Name Non-hazardous additive/compound

Labels Required None

DOT (Bulk Only)

Shipping Name UN1993, Flammable liquid, n.o.s.
(Contains: petroleum distillates, super high flash, naphtha)
3, PG III, Marine Pollutant, ERG# 128

Labels Required Flammable liquid, Marine Pollutant

IATA

Shipping Name UN1993, Flammable liquid, n.o.s.
(Contains: petroleum distillates, super high flash, naphtha)
3, PG III, Marine Pollutant, ERG# 3L

Labels Required Flammable liquid

IMDG

Shipping Name UN1993, Flammable liquid, n.o.s.
(Contains: petroleum distillates, super high flash, naphtha)
3, PG III, FP 41°C (105°F), Marine Pollutant, EMS# F-E, S-E

Labels Required Flammable liquid, Marine Pollutant

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