



LENMAR®

SOLVENTS 1A.XXX

General Description

Solvents exist in all coatings formulations to deliver the resins and pigments to the surface of the substrate. There are many ways to categorize solvents, but in wood coatings the "activity" of the solvents is often one of the best. Solvents, using this definition, exist as either active, latent or diluent compounds.

1A.101 Acetone, 1A.106 n-Butyl Acetate, 1A.137 Mineral Spirits, 1A.352 Ethyl Alcohol, Spirits 1A.355 Butyl Cellosolve, 1A.406 All Purpose Lacquer Thinner, 1A.519 Lacquer Thinner.

Limitations

- Interior use only

Product Information

Certifications & Qualifications:

The products supported by this data sheet contain a maximum of 900 grams per liter VOC /VOS (7.5 lbs/gal.) excluding water & exempt solvents.

1A.101 Acetone

| VOC REGION | COMPLIANT |
|------------|-----------|
| FEDERAL | YES |
| OTC | YES |
| OTCII | YES |
| CARB | NO |
| CARB07 | NO |
| UTAH | NO |
| AZMC | YES |
| SCAQMD | NO |

1A.106 n-Butyl Acetate, 1A.137 Mineral Spirits, 1A.352 Ethyl Alcohol, Spirits 1A.355 Butyl Cellosolve, 1A.406 All Purpose Lacquer Thinner, 1A.519 Lacquer Thinner

| VOC REGION | COMPLIANT |
|------------|-----------|
| FEDERAL | YES |
| OTC | NO |
| OTCII | NO |
| CARB | NO |
| CARB07 | NO |
| UTAH | NO |
| AZMC | NO |
| SCAQMD | NO |

Technical Assistance:

Available through your local authorized independent Lenmar dealer. For the location of the dealer nearest you, call 1-866-708-9180 or visit www.lenmar-coatings.com

Technical Data

Solvents

Flash Point

| | |
|------------------------------------|--------|
| 1A.101 Acetone | 1 °F |
| 1A.106 n-Butyl Acetate | 77 °F |
| 1A.137 Mineral Spirits | 105 °F |
| 1A.352 Ethyl Alcohol, Spirits | 59 °F |
| 1A.355 Butyl Cellosolve | 150 °F |
| 1A.406 All Purpose Lacquer Thinner | 14 °F |
| 1A.519 Lacquer Thinner | 14 °F |

Weight per Gallon

| | |
|------------------------------------|----------|
| 1A.101 Acetone | 6.59 lbs |
| 1A.106 n-Butyl Acetate | 7.35 lbs |
| 1A.137 Mineral Spirits | 6.31 lbs |
| 1A.352 Ethyl Alcohol, Spirits | 6.6 lbs |
| 1A.355 Butyl Cellosolve | 7.51 lbs |
| 1A.406 All Purpose Lacquer Thinner | 7.0 lbs |
| 1A.519 Lacquer Thinner | 7.0 lbs |

Volatile Organic Compounds (VOC)

| | |
|------------------------------------|---------|
| 1A.101 Acetone | 0 g/L |
| 1A.106 n-Butyl Acetate | 880 g/L |
| 1A.137 Mineral Spirits | 788 g/L |
| 1A.352 Ethyl Alcohol, Spirits | 790 g/L |
| 1A.355 Butyl Cellosolve | 900 g/L |
| 1A.406 All Purpose Lacquer Thinner | 831 g/L |
| 1A.519 Lacquer Thinner | 751 g/L |

Solvents 1A.XXX

WARNING! If you scrape, sand or remove old paint, you may release lead dust. **LEAD IS TOXIC. EXPOSURE TO LEAD DUST CAN CAUSE SERIOUS ILLNESS, SUCH AS BRAIN DAMAGE, ESPECIALLY IN CHILDREN. PREGNANT WOMEN SHOULD ALSO AVOID EXPOSURE.** Wear a NIOSH-approved respirator to control lead exposure. Carefully clean up with a HEPA vacuum and a wet mop. Before you start, find out how to protect yourself and your family by contacting the National Lead Information Hotline at 1-800-424-LEAD or log on to www.epa.gov/lead.

These products are recommended for interior use only.

Solvents exist in all coatings formulations to deliver the resins and pigments to the surface of the substrate. There are many ways to categorize solvents, but in wood coatings the "activity" of the solvents is often one of the best. Solvents, using this definition, exist as either active, latent or diluent compounds.

Active solvents are solvents which can dissolve the resins used in film-forming. For lacquer products, all ketones and acetates are active. The relative evaporation rates of solvents will determine their overall effect on the coating. Acetone is a very fast solvent, and will accelerate the cure of the coating. It is also delisted as a VOC, so can be added without altering the VOC level of coatings. Butyl Acetate is a mid-range solvent and can be used to simply thin a coating without affecting the overall cure of the coating. PM Acetate and Butyl Cellosolve (also known as EB Glycol Ether Acetate) are both slow evaporating solvents and act as retarders in coatings.

Latent solvents are solvents which, by themselves, are not active, but when placed in a system with active solvents, may increase the total solubility of the system for the resins. (They make active solvents more efficient.) Alcohols are active for conversion varnishes, but latent for nitrocellulose coatings. Xylene is latent for varnishes, and diluent for lacquer products. Addition of these solvents in the proper systems will also act as thinners and retarders without adverse effect to the film forming resins.

Diluent solvents are solvents which have no effect on the solubility of the resins at all. Naphtha and Mineral Spirits are diluents. They may be used to reduce or retard alkyd or oil-based stains, as they do not adversely affect the resins in those pigmented systems. Other solvents added to these stain systems may make settling worse or hurt the color stability because of their "activity". For lacquer systems, mineral spirits can be especially dangerous. It is a very slow solvent and can get trapped in nitrocellulose systems creating blushing and blooming problems.

Standard additions for all products when adding pure solvents are from 3-10%, and should be added in small increments of 2 – 3 ounces until the desired change or effect is achieved. (Butyl Cellosolve should not be added at levels above 5% without previous approval from technical service.) Make every effort to keep additions of solvent to a minimum. All products are formulated to achieve a certain balance. Each addition of solvents can affect that balance.

Never assume that all manufacturers and their finishes are the same. Test all additions on sample pieces before beginning or continuing application.

General Recommendations

1. Solvents should be treated as an "Add only when needed" item.
2. Add in at 2-3 ounces at a time, and no more than 10 percent, unless otherwise noted.
3. Too much solvent added, or the wrong solvent added, can result in a major shift in product performance. Always add with care and test all products before application on final substrate.
4. All solvent additions will raise the VOC levels of a product (even waterbornes) and care should be taken to remain in compliance with local, state and federal regulations.

Clean Up

USE COMPLETELY OR DISPOSE OF PROPERLY.

This product contains organic solvents which may cause adverse effects to the environment if handled improperly. Emptied containers may retain product residue. Follow label warnings even after container is emptied. Residual vapors may explode on ignition; do not cut, drill, grind or weld on or near the container.

Disposal of wastes containing either organic solvents or free-liquids in landfills is prohibited. **Local disposal requirements vary; consult your sanitation department or state-designated environmental agency for local disposal options.**

Environmental Health & Safety Information

1A.101 Acetone:

DANGER!

Causes serious eye irritation

May cause drowsiness or dizziness

Highly flammable liquid and vapor

Prevention: Wash face, hands and any exposed skin thoroughly after handling. Avoid breathing dust/fume/gas/mist/vapors/spray. Use only outdoors or in a well-ventilated area. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep container tightly closed. Ground/ bond container and receiving equipment. Use explosion-proof electrical/ ventilating/ lighting/ equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Wear protective gloves/protective clothing/eye protection/face protection. Keep cool.

Response: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell. In case of fire: Use CO₂, dry chemical, or foam for extinction.

Storage: Store in a well-ventilated place. Keep container tightly closed. Store locked up.

Disposal: Dispose of contents /container to an approved waste disposal plant.



WARNING Cancer and Reproductive Harm—
www.P65warnings.ca.gov

KEEP OUT OF REACH OF CHILDREN

**READ ALL DIRECTIONS BEFORE USE.
UNDERSTAND ALL DANGERS WITH THIS
PRODUCT PRIOR TO USE.**

**Refer to Safety Data Sheet for additional
health and safety information.**

Environmental Health & Safety Information

1A.106 n-Butyl Acetate:

DANGER!

May cause drowsiness or dizziness

Highly flammable liquid and vapor

Prevention: Avoid breathing dust/fume/gas/mist/vapors/spray. Use only outdoors or in a well-ventilated area. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep container tightly closed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ ventilating/ lighting/equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Wear protective gloves /protective clothing/eye protection/face protection. Keep cool.

Response: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell. In case of fire: Use CO₂, dry chemical, or foam for extinction.

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Environmental Health & Safety Information

1A.137 Mineral Spirits:

DANGER!

Causes skin irritation

May cause cancer

May cause drowsiness or dizziness

Causes damage to organs through prolonged or repeated exposure

May be fatal if swallowed and enters airways

Flammable liquid and vapor

Prevention: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required. Wash face, hands and any exposed skin thoroughly after handling. Do not breathe dust/fume/gas/mist/vapors/spray. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep container tightly closed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting/ equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Keep cool.

Response: IF exposed or concerned: Get medical advice/attention. If skin irritation occurs: Get medical advice/attention. IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. Do NOT induce vomiting. In case of fire: Use CO₂, dry chemical, or foam for extinction.

Storage: Store in a well-ventilated place. Keep container tightly closed. Store locked up.

Disposal: Dispose of contents /container to an approved waste disposal plant.



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Environmental Health & Safety Information
1A.352 Ethyl Alcohol

DANGER!

Harmful in contact with skin

Causes serious eye irritation

Highly flammable liquid and vapor

Prevention: Wear protective gloves/protective clothing/eye protection/face protection. Wash face, hands and any exposed skin thoroughly after handling. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep container tightly closed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ ventilating/ lighting/ equipment. Use only non-sparking tools. Take precautionary measures against static discharge.

Response: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. Call a POISON CENTER or doctor/physician if you feel unwell. Wash contaminated clothing before reuse. IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. In case of fire: Use CO₂, dry chemical, or foam for extinction.

Storage: Store in a well-ventilated place. Keep cool.

Disposal: Dispose of contents/container to an approved waste disposal plant.



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Environmental Health & Safety Information
1A.355 Butyl Cellosolve:

WARNING!

Harmful if swallowed

Harmful in contact with skin

Harmful if inhaled

Causes skin irritation

Causes serious eye irritation

May cause respiratory irritation

Combustible liquid

Prevention: Wash face, hands and any exposed skin thoroughly after handling. Do not eat, drink or smoke when using this product. Wear protective gloves/protective clothing/eye protection/face protection. Avoid breathing dust/fume/gas/mist/vapors/spray. Use only outdoors or in a well-ventilated area. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep cool.

Response: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. IF ON SKIN: Wash with plenty of soap and water. Call a POISON CENTER or doctor/physician if you feel unwell. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash before reuse. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell. IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. Rinse mouth. In case of fire: Use CO₂, dry chemical, or foam for extinction.

Storage: Store in a well-ventilated place. Keep container tightly closed. Store locked up.

Disposal: Dispose of contents /container to an approved waste disposal plant.



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Environmental Health & Safety Information

1A.406 All Purpose Lacquer Thinner:

DANGER!

Harmful if inhaled

Causes skin irritation

Causes serious eye irritation

Suspected of causing cancer

Suspected of damaging fertility or the unborn child

May cause respiratory irritation. May cause drowsiness or dizziness

May cause damage to organs through prolonged or repeated exposure

May be fatal if swallowed and enters airways

Highly flammable liquid and vapor

Prevention: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required. Use only outdoors or in a well-ventilated area. Wash face, hands and any exposed skin thoroughly after handling. Wear eye/face protection. Do not breathe dust/fume/gas/mist/vapors/spray. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep container tightly closed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ ventilating/ lighting/ equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Keep cool.

Response: IF exposed or concerned: Get medical advice/attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. If skin irritation occurs: Get medical advice/attention. IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. Do NOT induce vomiting. In case of fire: Use CO₂, dry chemical, or foam for extinction.

Storage: Store locked up. Store in a well-ventilated place. Keep container tightly closed.

Disposal: Dispose of contents/container to an approved waste disposal plant.



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Environmental Health & Safety Information

1A.519 Lacquer Thinner:

DANGER!

Causes skin irritation

Causes serious eye irritation

Suspected of causing cancer

Suspected of damaging fertility or the unborn child

May cause drowsiness or dizziness

May cause damage to organs through prolonged or repeated exposure

May be fatal if swallowed and enters airways

Highly flammable liquid and vapor

Prevention: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required. Wash face, hands and any exposed skin thoroughly after handling. Wear eye/face protection. Do not breathe dust/fume/gas/mist/vapors/spray. Use only outdoors or in a well-ventilated area. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep container tightly closed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ ventilating/ lighting/ equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Keep cool.

Response: IF exposed or concerned: Get medical advice/attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. If skin irritation occurs: Get medical advice/attention. IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. Do NOT induce vomiting. In case of fire: Use CO₂, dry chemical, or foam for extinction.

Storage: Store locked up. Store in a well-ventilated place. Keep container tightly closed.

Disposal: Dispose of contents /container to an approved waste disposal plant.



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