



Read all Material Safety Data Sheets on the products before using. Wear protective clothing, gloves, and safety glasses to prevent accidents and burning while heating the material. Keep out of reach of children.

Note: Use all necessary safety precautions to protect yourself, workspace, and clothing while working with materials. Also, it is very important to keep children away from the work area while heating Alumisol to prevent the possibility of accidents. 350 degrees F will burn skin very quickly. Make sure workspace is kept clean to prevent accidents.

Alumisol is a one component material that cures to a soft plastic after being heated to 350 degrees F and then cooling. It can be heated by a variety of methods. Here are the methods and processes we recommend.

Stove/Hot Plate/Burner –

Shake Alumisol Soft Plastic well before using.

Pour out quantity needed into a metal pot or approved stove top container you wish to use. Note: Leave enough room at the top of the container for some expansion as well as room to stir/mix without spilling.

Turn on heat source and slowly bring the Alumisol Soft Plastic up to 350 degrees.

Stir frequently to ensure a consistent and gradual temperature climb. Heating the material too fast can scorch or burn the Alumisol.

The material starts out as a thin milky white material. As the Alumisol heats up it goes through an important phase in which it thickens and gels. Continue to frequently mix the material to provide an even rise in overall temperature through this phase.

After the material goes through the gel phase and nears 350 degrees F, it will clear up and thin down to a pourable consistency.

Slowly stir the material one or two more times making sure all of the Alumisol is clear and thin. At this stage, you may notice a little bit of smoke.

Note where your heat source is set at to maintain the 350 degree F temperature without getting any hotter which risks scorching the Alumisol.

Once the Alumisol has reached 350 degrees F and has achieved a clear and very pourable consistency, you are ready to add and mix in dye, salt, scent, flake, or other Alumisol additives of your choice.

Once the additives have been mixed in thoroughly, you are now ready to slowly pour the heated Alumisol Soft Plastic into your molds. Note: flake, salt, and some other additives tend to sink rapidly. To ensure an even mixture in your finished part, be sure to continue to mix right up to the point in which you pour. Avoid mixing vigorously or whipping in air that may get trapped in your part when the Alumisol is poured into your mold.

You are now ready to slowly pour the heated Alumisol Soft Plastic into your molds.

Once poured, allow the Alumisol Soft Plastic to fully cool. Attempting to demold early may risk injury of burning and also jeopardize the quality of the part if it is not fully cooled and set.

Once removed from the mold, you are now able to trim your piece. A pair of hair trimming scissors (shears) works well for cutting flash and over pour areas from the cast piece.

Microwave –

Shake Alumisol Soft Plastic well before using.

Pour out quantity needed into an approved microwaveable container you wish to use. Note: Leave enough room at the top of the container for some expansion as well as room to stir/mix without spilling.

Place the microwaveable container in the microwave and begin heating on medium. The ideal temperature we are gradually trying to reach is 350 degrees F. In order to do this gradually and consistently, you must remove the Alumisol and mix frequently – approximately every 45-60 seconds for a 12 oz batch. Microwave power settings and outputs vary so we recommend mixing more frequently until you better understand the time needed between stirring.

Stir frequently to ensure a consistent and gradual temperature climb. Heating the material for too long at one time without stirring can scorch or burn the Alumisol.

The material starts out as a thin milky white material. As the Alumisol heats up, it goes through an important phase in which it thickens and gels. Continue to frequently mix the material to provide an even rise in overall temperature through this phase.

After the material goes through the gel phase and nears 350 degrees F, it will clear up and thin down to a pourable consistency.

Slowly stir the material one or two more times making sure all of the Alumisol is clear and thin. At this stage, you may notice a little bit of smoke.

Once the Alumisol has reached 350 degrees F and has achieved a clear and very pourable consistency, you are ready to add and mix in dye, salt, scent, flake, or other Alumisol additives of your choice.

Once the additives have been mixed in thoroughly, you are now ready to slowly pour the heated Alumisol Soft Plastic into your molds. Note: flake, salt, and some other additives tend to sink rapidly. To ensure an even mixture in your finished part, be sure to continue to mix right up to the point in which you pour. Avoid mixing vigorously or whipping in air that may get trapped in your part when the Alumisol is poured into your mold.

Once poured, allow the Alumisol Soft Plastic to fully cool. Attempting to demold early may risk injury of burning and also jeopardize the quality of the part if it is not fully cooled and set.

Once removed from the mold, you are now able to trim your piece. A pair of hair trimming scissors (shears) works well for cutting flash and over pour areas from the cast piece.

Melting Pot –

Shake Alumisol Soft Plastic well before using.

Pour out quantity needed into your melting pot. Note: Leave enough room at the top of the pot for some expansion as well as room to stir/mix without spilling.

Turn on the pot and slowly bring the Alumisol Soft Plastic up to 350 degrees.

Stir frequently to ensure a consistent and gradual temperature climb. Heating the material too fast can scorch or burn the Alumisol.

The material starts out as a thin milky white material. As the Alumisol heats up it goes through an important phase in which it thickens and gels. Continue to frequently mix the material to provide an even rise in overall temperature through this phase.

The melting pot's heating elements are typically in the side walls and bottom of the pot. Make sure to stir the material off of the sides and bottom frequently to avoid the material over heating and scorching in those areas.

After the material goes through the gel phase and nears 350 degrees F, it will clear up and thin down to a pourable consistency.

Slowly stir the material one or two more times making sure all of the Alumisol is clear and thin and does not contain any lumps or gelled material that has not thinned down. At this stage it may smoke a little bit.

Note where your heat source is set at to maintain the 350 degree F temperature without getting any hotter which risks scorching the Alumisol.

Once the Alumisol has reached 350 degrees F and has achieved a clear and very pourable consistency, you are ready to add and mix in dye, salt, scent, flake, or other Alumisol additives of your choice.

Once the additives have been mixed in thoroughly, you are now ready to slowly pour the heated Alumisol Soft Plastic into your molds. Note: flake, salt, and some other additives tend to sink rapidly. To ensure an even mixture in your finished part, be sure to continue to mix right up to the point in which you pour. Avoid mixing vigorously or whipping in air that may get trapped in your part when the Alumisol is poured into your mold.

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Once poured, allow the Alumisol Soft Plastic to fully cool. Attempting to demold early may risk injury of burning and also jeopardize the quality of the part if it is not fully cooled and set.

Once removed from the mold, you are now able to trim your piece. A pair of hair trimming scissors (shears) works well for cutting flash and over pour areas from the cast piece.

When you are finished, turn off the melting pot and allow the pot and contents to completely cool. Once the Alumisol cools, the remaining material can be removed from the pot by simply peeling the film on the sidewall and pulling the cured puck out of the bottom of the pot.

Remelting Alumisol Parts –

Recycling bad or old parts as well as remelting residual material left in the melting containers is recommended with Alumisol. Simply make sure the materials are clean from dirt, particles, debris, or other substances before placing them back in your melting container. Cutting the recycled Alumisol into small pieces with a pair of scissors will also help the material melt back down easier.

Before reheating make sure to add both Softener and Heat Stabilizer to assist in the remelting process.

Add approximately 1 tablespoon per pint of the Alumisol Softener and add approximately 2 parts of Alumisol Heat Stabilizer to 100 parts of cured Alumisol Soft Plastic you wish to melt back down. This is equivalent to approximately 1 teaspoon of Heat Stabilizer per quart (32 oz) of cured Alumisol.

NOTE: It does not take much ... however using too much is not good and may actually accelerate the cure rather than prolong the work time of the recycled material. Also, when reheating the material may not go through the gel phase as raw or brand new Alumisol does. When it melts, it will simply melt back down to a thin liquid that is ready to repour.

Then simply follow the steps listed above in your choice of heating methods to recycle the material.

ALUMILITE CORPORATION

315 E. North St. Kalamazoo, MI 49007

www.alumilite.com 800 447-9344

Material Safety Data Sheets

Alumilite Corporation
315 E. North St.
Kalamazoo, MI 49007
269 488-4000

Emergency Telephone: Chemtrec 1-800-424-9300

Section 1 – Product Information

Alumisol

Common Chemical Name: Polyvinyl Chloride Dispersion

Synonyms: Plastisol

Chemical Family: N/A

Molecular Weight: Not Established

Section 2 - Ingredients

This product is not considered to be or to contain hazardous chemicals based on evaluations made by our company under the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

Section 3- Hazardous Identification

Color:	Milky White
Form/Appearance:	Liquid
Odor:	Slightly sweet
Odor Intensity:	Very Mild

Nature of Hazard

Emergency Overview: No immediate effects are anticipated but repeated or prolonged contact may cause eye or skin irritation.

Eye Contact: May cause irritation. Not known to cause permanent damage to eye tissue.

Skin Contact: No hazards expected in normal industrial use. Prolonged or repeated skin contact may cause irritation. Skin contact may aggravate an existing dermatitis condition.

Inhalation: Not likely to cause irritation at ambient temperatures. Heating this material will cause fumes and vapors which can cause irritation of the respiratory tract.

Ingestion: Can cause gastrointestinal irritation.

Medical Conditions Aggravated by Exposure: None known.

Section 4 – First Aid

Eye: Flush with large amounts of clean water for 15 minutes. If irritation persists, get medical attention.

Skin: Wash with soap and water. Get medical attention if irritation develops or persists. Wash clothing before reuse.

Inhalation: Although this product is not known to cause respiratory problems, if breathing is difficult, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen and continue to monitor. Get immediate medical attention.

Ingestion: Do not induce vomiting. Never give anything by mouth to an unconscious person.

Medical Conditions Aggravated by Exposure: None known.

Section 5 – Fire Fighting Measures

Extinguishing Media: Foam, carbon dioxide, or dry chemical
Fire Fighting Instructions: Wear self-contained breathing apparatus. May generate HCl and oxides of carbon. Wear structural fire fighting gear. Avoid breathing smoke, fumes, and decomposed products.

OSHA Flammability Classification: Combustible Liquid – Class IIIB

Flash Point: > 200 degrees F

Autoignition Temp: N/A

Section 6 – Accidental Release Measures

General: Spills should be contained, soaked up with absorbent material, and placed in suitable containers for disposal at a licensed facility. Do not allow material to enter soil or surface water.

Waste Disposal: Incinerate or bury in a licensed in accordance with local, state and federal regulations.. Do not discharge into waterways or sewer systems without proper authority.

Section 7 – Handling and Storage

General: Keep away from heat and flames.

Storage: Protect containers from physical damage. Store in cool dry place and keep containers closed when not in use.

Section 8 – Exposure Controls & Personal Protection

Clothing: Gloves, coveralls, apron, boots as necessary to prevent skin contact.

Eyes: Chemical goggles; also wear face shield if splashing hazard exists.

Respiration: Under normal use, with adequate ventilation, no special respiratory protective equipment is required. If local exhaust is insufficient to remove fumes or vapors generated during process, NIOSH approved respirators may be necessary.

Ventilation: Provide sufficient mechanical ventilation to maintain exposure below TLVs.

Section 9 – Physical & Chemical Properties

Color: Milky White

Form: Liquid

Odor: Slight sweet

Odor Intensity: Very Mild

Specific Gravity: 1.1

Boiling Pt: Not Available

Freezing Pt: Not Available

Section 10 – Stability & Reactivity

Stability: Stable

Polymerization: Will not occur

Conditions to Avoid: Extreme temperatures

Incompatibility: Strong oxidizers

Hazardous Decomposition: Will not occur if handled and stored properly

Section 11 – Toxicological Information

None of the components in this material are listed as a carcinogen by NTP, IARC, or OSHA.

Section 12 – Ecological Information

No applicable data for this section.

Section 13 – Disposal Information

Waste Disposal: All waste materials should be packaged, labeled, and transported in accordance with all national, state, and local requirements.

Section 14 - Transportation Information

Not regulated by the Department of Transportation

Section 15 - Regulatory Information

Hazardous Rating: Health 1 Fire 1 Reactivity 0

All components of this compound are listed on the US TSCA Inventory.

Section 16 - Other Information

No Data Available.

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To the best of our knowledge, the information contained herein is accurate. However Alumilite does not assume any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be handled with care. Although we have described herein all of the hazards to which we are currently aware, we cannot guarantee that these are the only hazards which exist. While the descriptions, designs, data, and information contained herein are presented in good faith and believed to be accurate, it is provided for your guidance only. Further, you expressly understand and agree that the descriptions, designs, data, and information furnished by Alumilite hereunder are given gratis and Alumilite assumes no obligation or liability for the description, designs, data, and information given or results obtained, all such being given and accepted at your risk.

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