



HALAL WATCH WORLD



THE GLOBAL STANDARD IN HALAL CERTIFICATION



PRODUCT & FACILITY REPORT

LiquiGlide

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COMPANY BACKGROUND

Halal Watch World LLC is a halal certification limited liability corporation based in the state of New York, and has operated in the certification industry since 1990. HWW is an organization that stands upon the trust of the Muslim public, and believes that it is imperative that their trust never be jeopardized. We maintain standards to the highest degree of scrutiny and perform regular audits for the protection of our constituents.

Halal Watch World understands that halal certification is a communal obligation (فرض كفاية), meaning, at least one person of the community must uphold it. If no one takes up this responsibility, the entire community bears a burden of sin. Therefore, we must be extra diligent with this effort. We realize the seriousness of the matter and understand the dire consequences of not filling this duty to the fullest capacity. God explains this to us in the Holy Quran by His statement:

“ And say not concerning that which your tongue says falsely: 'This is Halal and this is Haram,' so as to invent lies against Allah. Verily, those who invent lies against Allah will never prosper...A passing brief enjoyment (will be theirs), but they will have a painful torment.”

[Al Quran] 16:116-117

HWW ensures to the best of its ability a high level of authenticity is upheld. This allows them to gain the trust of the Muslim community, and garner strong relationships with companies who produce, process, and distribute halal products at all levels. By this, they are able to offer halal producing company's guidance and consultation on the direction of their processes and products, while ensuring that Islamic dietary standards are always maintained and monitored. Muslims can use this information in order to make well informed decisions about what they choose to eat.

Legal Filings: Halal Watch World holds registered trademark number 4728733, and Department of State (New York) number 4814343. Halal Watch World is also a registered halal certifying organization with The Department of Agriculture and Markets of New York State (See supporting documentation).

We begin in the name of God SWT



CERTIFICATION CONSIDERATIONS

There are 4 main factors taken into consideration when determining the halal status of a product:

1. Is the product/ingredient Halal Aslan (by default)?

If the product is Halal by default, then the location it is harvested, produced, or manufactured in, even if done so by a non-Muslim, is not necessary to inspect.

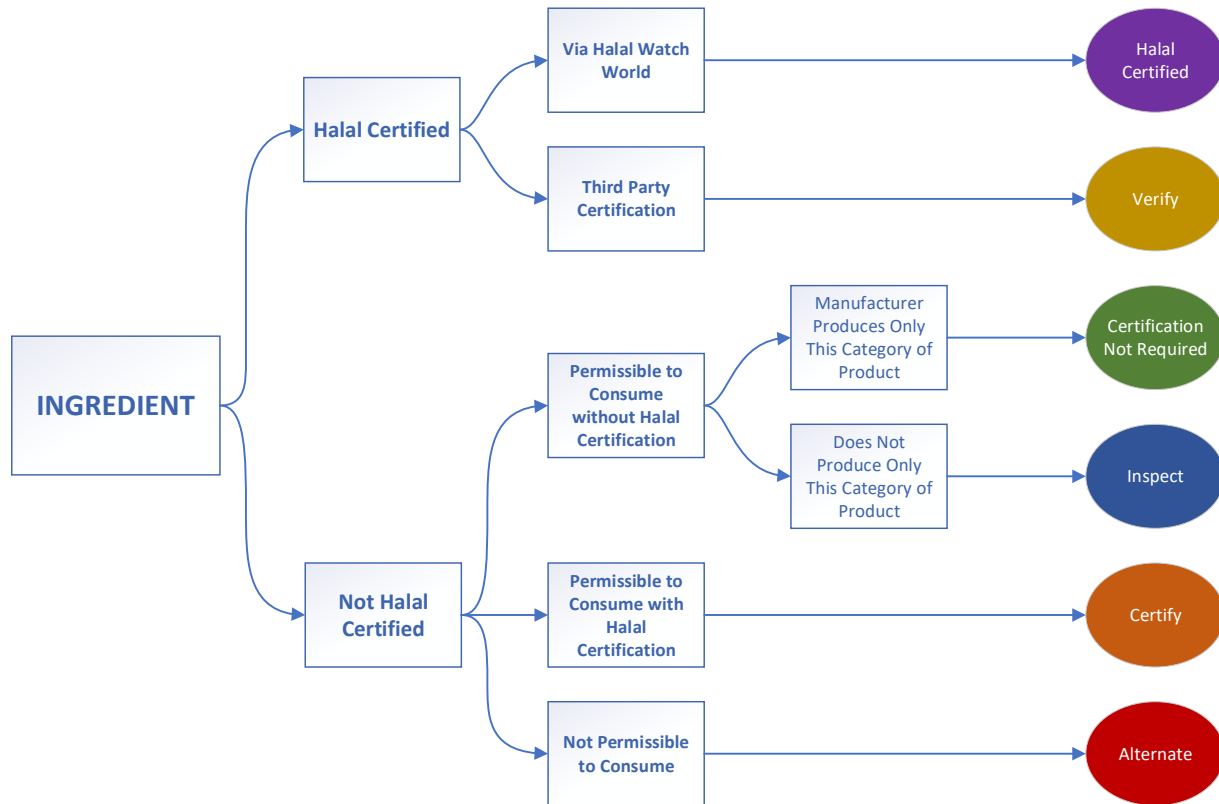
2. Is the product/ingredient Halal certified via another organization?

If another organization certifies the product as Halal, then it is incumbent upon us to perform a *tahqeeq* (verification) certification of the establishment. We must be able to ascertain that the certifying body is competent and capable of determining the status of such products. In the event that we are unable to gain this information, our organization must inspect the location of production before certifying.

3. Are there any impermissible ingredients being produced in the same facility?

As is the norm in Muslim minority societies, manufacturers produce both Halal and Non-Halal products in the same facilities. If other non-Halal items are produced in the same facility, an inspection may be required. In the event that an inspection is not possible, Halal Watch World reserves the right to utilize other forms of off-site audit procedures requiring documentation and the like in order to determine the facilities halal production capabilities. It is generally required for us to determine that the manufacturer prevents the following:

1. Product Contamination
2. Cleaning Method fulfils Islamic requirements
3. Separate storage locations between Halal and non-Halal products, or preventative measures are in place to remove the possibility of mislabelling
4. Halal certified label is visible either on the box or the product
5. Halal certificate from source meat supplier is valid



Regarding contamination, products cannot be cooked upon or within the same utensils without proper cleansing. This means that any liquid substance that interacts with non-halal products becomes contaminated. This includes oil, and other wet cooking surfaces. Thus, if a vat of oil is used to cook non-halal products (which is considered as filth), it cannot be used to cook Halal products without contaminating it.

4. Are there any contents in the product that contain impermissible ingredients?

We refer to the list of impermissible consumables on the previous pages. If the product under audit is found to contain any of the ingredients on the ban list, these products cannot be considered as halal.

Client Details: LiquiGlide

FACILITY PROFILE

LiquiGlide’s technology was invented by Prof. Kripa Varanasi and Dave Smith at MIT. When Kripa joined MIT faculty in 2009, his vision was to fundamentally manipulate interfaces to dramatically enhance performance across various industries, including energy, water, agriculture, transportation, and medicine. Dave was one of the first students to join Kripa’s lab, and he embraced the vision. Together, Dave and Kripa invented and developed the fundamental scientific framework for stable liquid-impregnated surfaces, which became the foundation for LiquiGlide...

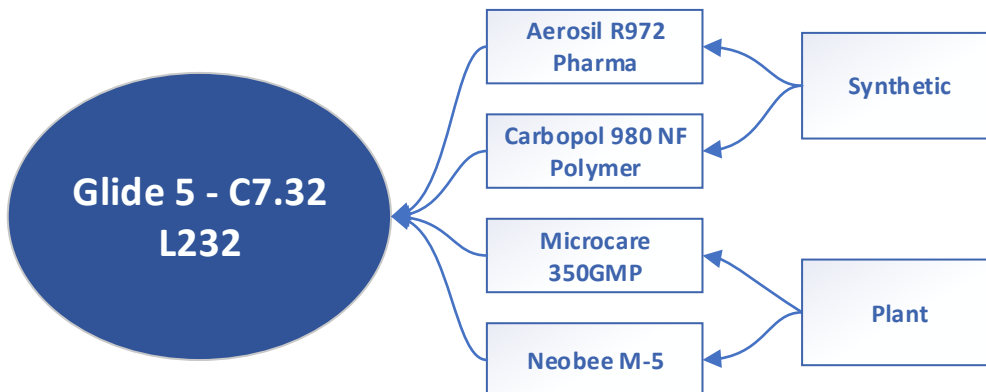
Client Details	
GENERAL INFORMATION	
Physical Address:	34 Sullivan Rd, North Billerica, MA
Area of site:	2500
Number of employees:	35
Number of working shift:	1
Operating Hours:	9 to 5
Work Days:	Mon - Fri
Total Number of Products:	1
Total Number of Ingredients:	4
FACILITY OVERVIEW	
Risk Assessment	Low Risk
Facility Kind	HPF - Totality
Contaminants	No
Tools	Dedicated
Storage	Segregated
SUPPLIER OVERVIEW	
Supplier1:	Letica
Supplier2:	Micro Powders, Inc
Supplier3:	Evonik Corporation
Supplier4:	Lubrizol
Supplier5:	Stepan Specialty Products, LLC
PRODUCT OVERVIEW	
Product Type:	Chemicals
Exposure:	Goods are opened in facility
Animal Byproducts:	No
Alcohol (Ethyl):	No
Fillers/Additives (Finished product:)	No

PRODUCT INFORMATION

Product name	Client product #	HWW Product ID	Ingredients List
Glide 5 - C7.32 L232	[QA-033-SPC-008 MR1042-CH01		Aerosil R972 Pharma, Carbopol 980 NF Polymer, Microcare 350GMP, Neobee M-5

PRODUCT PROFILE

Glide 5 - C7.32 L232



Glide 5 - C7.32 L232 (Item: QA-033-SPC-008)

LiquiGlide custom designs durable slippery coatings based on the science of liquid - impregnated surfaces. Effective LIS require the proper combination of surface chemistry and texture such that the impregnating liquid preferentially wets the textured surface and is stabilized by capillary and intermolecular forces.

Ingredient Status

Aerosil R972 Pharma: – **Halal** (Aslan) [AEROSIL® R 972 Pharma is a high purity, amorphous, anhydrous, hydrophobic colloidal silica for use as an excipient in pharmaceutical products.]

Carbopol 980 NF Polymer: – **Halal** (Aslan) [Carbopol® 980 NF polymer is a highly efficient thickener and it is ideal for formulating clear aqueous and hydroalcoholic gels. The polymer has short flow rheology similar to mayonnaise.]

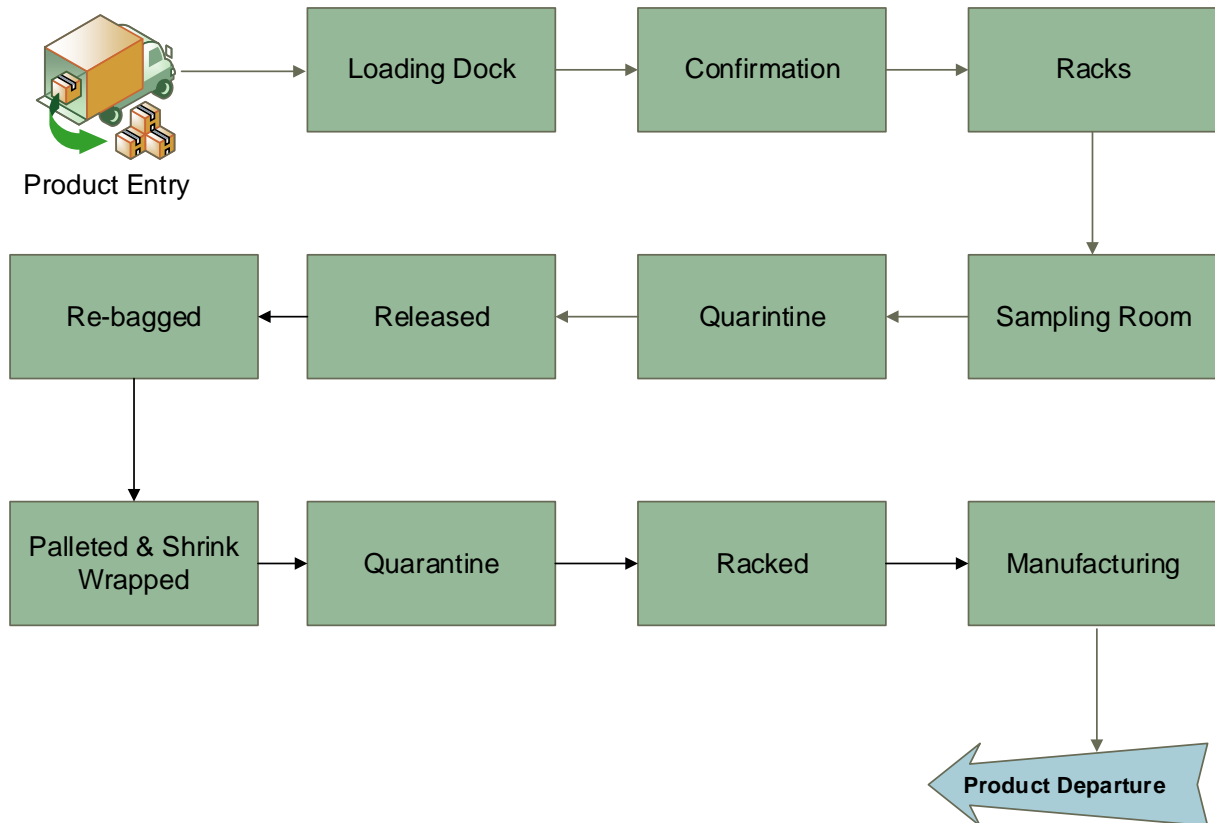
Microcare 350GMP: – **Halal** (Aslan) [Microcare 350 is a finely micronized, Ecocert-approved powder produced from 100% carnauba #1 wax which is an excellent addition to natural formulations.]

Neobee M-5: – **Halal** (Aslan) [NEOBEE M-5 is a caprylic/capric triglyceride. It is made using glycerol from vegetable oil sources and medium-chain fatty acids from

coconut and palm kernel oils. MCTs are the healthier choice due to their efficient metabolism of burning fat to energy.]

Concerns – None.

PROCESSING OVERVIEW



CLEANING METHOD

Description:

Cleaning of Surfaces

Spray all surfaces and equipment (curtains, shelving units, tables, door handles, trash cans, etc.) with 70% IPA. Wipe the surfaces and equipment with a lint free cleanroom wipe. This includes spraying and wiping down all surfaces of GMP manufacturing equipment and connecting lines (Slurry Tank, Pump Skids, Scales Used for Manufacture, etc.) Ensure that the equipment and surfaces are cleaned in an aseptic manner, which includes one singular stroke in one direction and no overlaps between strokes. Dispose of soiled cleanroom wipes in the appropriate clean room trash bin after cleaning is complete.

Cleaning of Floors using the dry-cleaning tool

Verify that the adhesive pad on the sticky roller is new.

In the case of the Manufacturing Room, an additional step of sweeping using the cleanroom assigned broom is necessary before using the sticky roller. Start the cleaning process in each room in the location furthest away from the exit Start in the corner of the room furthest from the door and work your way to the door. Ensure that the entire floor, including areas below shelves, tables and equipment, are properly cleaned by the dry-cleaning tool. Peel and dispose of adhesive pad after the cleaning of each room. If the adhesive pad is severely soiled before finishing one room, change immediately and dispose of it in a trash can...

Frequency: Daily, Weekly, Monthly and semi-annually. Specifically, for machines that come into contact with halal product: "Both prior to and after manufacturing. Maximally 5 days between any cleaning."

PRODUCT & SUPPLIER ASSESSMENT

Evonik Corporation

Raw Material	Statement/Certificate	Pass/Fail	Reason	Status Recommendation	Ingredient Source
Aerosil R972 Pharma	Certificate	Pass		Halal Aslan	Synthetic

Lubrizol

Raw Material	Statement/Certificate	Pass/Fail	Reason	Status Recommendation	Ingredient Source
Carbopol 980 NF Polymer	Certificate	Pass		Halal Aslan	Synthetic

Stepan Specialty Products, LLC

Raw Material	Statement/Certificate	Pass/Fail	Reason	Status Recommendation	Ingredient Source
Neobee M-5	Certificate	Pass		Halal Aslan	Plant

Micro Powders, Inc.

Raw Material	Statement/Certificate	Pass/Fail	Reason	Status Recommendation	Ingredient Source
Microcare 350GMP	Statement	Pass		Halal Aslan	Plant

Letica

Raw Material	Statement/Certificate	Pass/Fail	Reason	Status Recommendation	Ingredient Source
5 GAL UN PAIL SOLIDS/LIQUIDS (HDPE)	N/A	Pass		Halal Aslan	N/A
5 GAL SOLID COVER W/ GASKET WHITE (HDPE)	N/A	Pass		Halal Aslan	N/A

TESTING METHOD

The following tests are performed for the production facility: Environmental monitoring swabs performed after each cleaning. Quarterly tested using RODAC floor plates.

CONCLUSION

Client was cooperative, compliant with on-site access, and all relevant documentation requests. Inspector was able to identify all critical Halal Area Risk Management locations. All H.A.R.M. areas have been properly mitigated. All source materials have been analysed during this review. LiquiGlide's facility has been deemed to be conducive to maintaining the integrity of a Halal product.

Based upon this information, the review team hereby certifies both the facility, and all products mentioned in this report to be Halal.

REVIEW AGENT:



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APPROVED BY:



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