

GHS SAFETY DATA SHEET

SHIMMER & SHINE GLASS CLEANER

Date Revised: 01-01-2017

Supersedes: 01-01-2013

1 - Product and Company Identification

Product Name: SHIMMER & SHINE GLASS CLEANER

Product Use: Industrial Alcohol Based Glass Cleaner

SUPPLIER: MANUFACTURER: Vector Laboratories

Howard Grant Corp. 316 Alexander St.

Youngstown, OH 44502 Tel: 800-331-0347

EMERGENCY: 800-255-3924 CHEM-TEL ID # MIS0004293

2 - Hazards Identification

2.1 Classification

H225 - Highly Flammable liquid and vapour

H301 - Toxic is Swallowed

H311- Toxic in contact with skin

H331 – Toxic if inhaled

H370 – Causes damage to organs

2.2 Label Elements







TOXIC



HEALTH HAZARD

Signal Word (GHS – US) DANGER

Hazard Statements (GHS – US) H225 – Highly Flammable liquid and vapour

H301+H311+H331 Toxic if swallowed, in contact with skin or if inhaled

H370 – Causes damage to organs (liver, kidneys, central nervous system, optic nerve) (Dermal,

Oral)

Precautionary Statements (GHS – US)

P210 - Keep away from heat, sparks, open flames, hot surfaces. - No smoking

P233 - Keep container tightly closed

P240 - Ground/bond container and receiving equipment

P241 - Use explosion-proof electrical, ventilating, lighting equipment

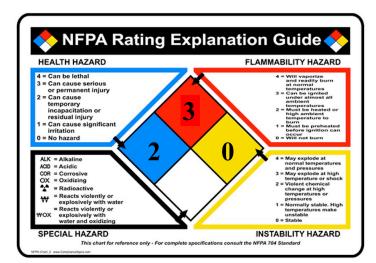
P242 - Use only non-sparking tools

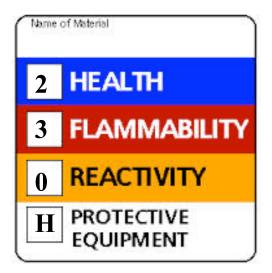
P243 - Take precautionary measures against static discharge

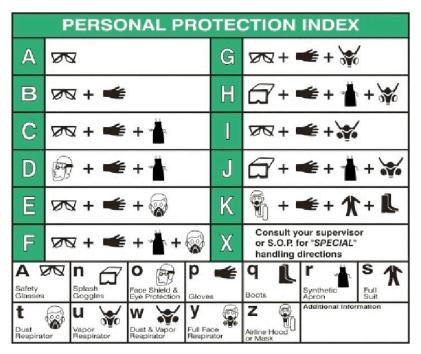
P260 - Do not breathe mist, vapours, spray

P264 - Wash exposed skin thoroughly after handling

- P270 Do not eat, drink or smoke when using this product
- P271 Use only outdoors or in a well-ventilated area
- P280 Wear protective gloves, protective clothing, eye protection, face protection
- P301 + P310 IF SWALLOWED: immediately call a POISON CENTER or doctor/physician
- P303 + P361 + P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
- P304 + P340 IF INHALED: remove victim to fresh air and keep at rest in a position comfortable for breathing
- P330 If swallowed, rinse mouth
- P363 Wash contaminated clothing before reuse
- P370 + P378 In case of fire: Use carbon dioxide (CO2), powder, alcohol-resistant foam for extinction
- P403 + P233 Store in a well-ventilated place. Keep container tightly closed
- P235 Keep cool
- P405 Store locked up
- P501 Dispose of contents/container to comply with local, state and federal regulations







2.3 Other Hazards

Other Hazards not contributing to the classification:

None known

2.4 Unknown acute toxicity (GHS – US)

No data available

3 - Composition/information on ingredients

3.1 Chemical Identity: SOLUTION

3.2 Common name, synonyms, etc: Mixture; Solvent Solution; Methanol Mixture.

3.3

| Chemical Name | Cas Number | % Present | GHS Classification | Notes |
|------------------------------------|------------|--------------|--|--------|
| Methanol | 67-56-1 | > 50 % | Flam. Liq. 2, H225 Acute Tox. 3 (Oral), H301 Acute Tox. 3 (Dermal), H311 Acute Tox. 3 (Inhalation), H331 STOT SE 1, H370 | [1][2] |
| Isopropyl Alcohol | 67-63-0 | < 50 % | Flam. Liq. 2, H225 Eye Irrit. 2A, H319 STOT SE 3, H336 | |
| Ethylene Glycol Monobutyl Ether | 111-76-2 | < 20 % | Acute Tox 4 (Inhalation); H332 Acute Tox 4(Dermal); H312 Acute Tox 4 (Oral); H302 Eye Irrit 2A; H319 Skin Irrit 2; H315 | [1][2] |

- [1] Substance classified with a health or environmental hazard.
- [2] Substance with a workplace exposure limit.

Full text of H-phrases: see section 16

4 – First Aid Measures

4.1 Description of First Aid Measures

First-aid measures general: Check the vital functions. Unconscious: maintain adequate airway and respiration. Respiratory arrest: artificial respiration or oxygen. Cardiac arrest: perform resuscitation. Victim conscious with laboured breathing: half-seated. Victim in shock: on his back with legs slightly raised. Vomiting: prevent asphyxia/aspiration pneumonia. Prevent cooling by covering the victim (no warming up). Keep watching the victim. Give psychological aid. Keep the victim calm, avoid physical strain. Never give alcohol to drink.



After inhalation: If inhaled, remove to fresh air and keep at rest in a position comfortable for breathing. Immediately seek medical help.

After skin contact: Remove contaminated clothing. Immediately flush skin with plenty of water for at least 15 minutes. Wash skin thoroughly with soap and water or use a recognized skin cleanser. Do not use a chemical neutralizer. Seek medical advice.



After eye contact: Immediately flush with large quantities of water for at least 15 minutes while holding eyelids open. If contact lenses are present remove if easy to do so. Continue to flush eyes out. Take victim to an ophthalmologist if irritation persists .

After ingestion: Rinse mouth with water. Give nothing to drink. Do not induce vomiting. Immediately consult a doctor/medical service. Call Poison Information Centre (http://www.aapcc.org/about/united-states-poison-centers/). Ingestion of large quantities: immediately to hospital. Take the container/vomit to the doctor/hospital. Doctor: administration of chemical antidote. Doctor: gastric lavage.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms/Injuries after Inhalation: Slight Irritation. EXPOSURE TO HIGH CONCENTRATIONS: Coughing.

Symptoms similar to those listed under ingestion.

Symptoms/Injuries after skin contact: Dryness and irritation.

Symptoms/Injuries after eye contact: Irritation, reddening, tearing, burning and itching.

Symptoms/Injuries after ingestion: Nausea. Vomiting.

AFTER ABSORPTION OF HIGH QUANTITIES: FOLLOWING SYMPTOMS MAY APPEAR LATER: Change in the haemogramme/blood composition. Headache. Feeling of weakness. Abdominal pain. Muscular pain. Central nervous system depression. Dizziness. Mental confusion. Drunkenness. Coordination disorders. Disturbed motor response. Disturbances of consciousness. Visual disturbances. Blindness. Respiratory difficulties. Cramps/uncontrolled muscular contractions.

Chronic symptoms: ON CONTINUOUS/REPEATED EXPOSURE/CONTACT: Red skin. Dry skin. Skin rash/inflammation. Headache. Disturbed tactile sensibility. Visual disturbances. Sleeplessness. Gastrointestinal complaints. Cardiac and blood circulation effects.

4.3 Indication of Any Immediate Medical Attention and Special Treatment Needed

If ingested, hospitalize at once. Have container or label at hand.

5 – Firefighting Measures

5.1 Extinguishing Media:

Use media appropriate for surrounding area. Water, Dry Chemical or Alcohol Resistant Foam recommended.

5.2 Special hazards arising from the substance or mixture:

Fire Hazard: DIRECT FIRE HAZARD. Highly flammable. Gas/vapour flammable with air within explosion limits. INDIRECT FIRE HAZARD. May be ignited by sparks.

Explosion Hazard: DIRECT EXPLOSION HAZARD. Gas/vapour explosive with air within explosion limits. INDIRECT EXPLOSION HAZARD. may be ignited by sparks. Reactions with explosion hazards: see "Reactivity Hazard".

Other Hazards: On heating: release of toxic/corrosive/combustible gases/vapours (formaldehyde). Upon combustion: CO and CO2 are formed. Violent to explosive reaction with (some) metal powders and with (strong) oxidizers. Violent exothermic reaction with (some) acids and with (some) halogens compounds.

5.3 Special protective equipment and precautions for firefighters

Do not enter area without proper protective equipment including respiratory protection.

Exercise caution when fighting any chemical fire.

Do Not allow run-off from fire fighting to enter drains or water courses.

Cool tanks/drums with water spray/remove them into safety. Do not move the load if exposed to heat.

6 - Accidental Release Measures

6.1 Personal Precautions, Protective Equipment And Emergency Procedures:

General Measures: Do not get in eyes, on skin or clothing. Do not breathe (vapor, mist, gas). Wear protective equipment.

6.1.1 For Non-emergency Personnel

Protective equipment: Gas-tight suit.

Emergency procedures: Keep upwind. Mark the danger area. Consider evacuation. Close doors and windows of adjacent premises. Stop engines and no smoking. No naked flames or sparks. Spark- and explosion proof appliances and lighting equipment. Keep containers closed. Wash contaminated clothes.

6.1.2 For Emergency Responders

Protective Equipment: Equip cleanup crew with proper protection. **Emergency Procedures:** Ventilate area. Stop leak if safe to do so.

6.2 Environmental Precautions:

Do not allow to enter sewers/surface, ground water or public waters.

6.3 Methods and Material for Containment and Cleaning Up

For containment: Contain released substance, pump into suitable containers. Consult "Material-handling" to select material of containers. Plug the leak, cut off the supply. Dam up the liquid spill. Try to reduce evaporation. Measure the concentration of the explosive gas-air mixture. Dilute combustible/toxic gases/vapours with water spray. Take account of toxic/corrosive precipitation water. Provide equipment/receptacles with earthing. Do not use compressed air for pumping over spills.



Methods for Cleaning Up: Take up liquid spill into a non combustible material e.g.: sand, earth, vermiculite slaked lime or soda ash. Scoop absorbed substance into closing containers. See "Material-handling" for suitable container materials. Carefully collect the spill/leftovers. Damaged/cooled tanks must be emptied. Do not use compressed air for pumping over spills. Clean contaminated surfaces with an excess of water. Take collected spill to manufacturer/competent authority. Wash clothing and equipment after handling.

7- Handling and storage

7.1 Precautions for safe handling:

Comply with the legal requirements.

Remove contaminated clothing immediately. Clean contaminated clothing.

Handle uncleaned empty containers as full ones.

Thoroughly clean/dry the installation before use. Do not discharge the waste into the drain.

Do not use compressed air for pumping over.

Use spark-/explosion-proof appliances and lighting system.

Take precautions against electrostatic charges.

Keep away from naked flames/heat. Keep away from ignition sources/sparks.

Observe strict hygiene.

Keep container tightly closed.

Measure the concentration in the air regularly.

Work under local exhaust/ventilation.

7.2 Conditions For Safe Storage, Including Any Incompatibles:

Store in a cool, dry, well ventilated place.

Keep container tightly closed when not in use. Storage areas should be periodically checked for corrosion and integrity.

Incompatible Products: Strong oxidizers. Strong bases. Strong acids. Acid anhydrides. Acid chlorides, direct sunlight, heat sources, sources of ignition.

Storage area: Store at room temperature. Keep out of direct sunlight. Store in a dry area. Keep container in a well-ventilated place. Fireproof storeroom. Keep locked up. Provide for a tub to collect spills. Provide the tank with earthing. Unauthorized persons are not admitted. Aboveground. Meet the legal requirements.

Special Rules On Packaging: Store in original container, closing, dry, clean, correctly labeled, meet the legal requirements. Secure fragile packagings in solid containers.

Packaging materials: steel. iron. glass. MATERIAL TO AVOID: lead. aluminum. zinc. polyethylene. PVC.

7.3 Specific End Use(s)

Professional Glass Cleaning. For Industrial and Professional use only.

8 – Exposure Controls/Personal Protection

8.1 Control Parameters

| CAS No. | Ingredient | Source | Value |
|----------|---------------------------------|--------|-----------------------------|
| 67-56-1 | Methanol | OSHA | 260 mg/m³ |
| | | ACGIH | 200 ppm |
| 67-63-0 | Isopropyl Alcohol | OSHA | 980 mg/m³ |
| | | ACGIH | 200 ppm |
| 111-76-2 | Ethylene Glycol Monobutyl Ether | OSHA | TWA 50ppm (240 mg/m3)[skin] |
| | | ACGIH | TWA 20ppm |

8.2 Appropriate Engineering Controls:

Ensure all/national/local regulations are observed. Ensure adequate ventilation, especially in confined areas. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.

8.3 Individual protection measures

(PPE - Personal Protection Equipment).

Protective clothing. Protective clothing.

Full protective flameproof clothing.

Eye Protection: Chemical goggles & face shield.

Hand Protection: Wear chemically resistant protective gloves.

Materials for protective clothing:

 $GIVE \quad GOOD \quad RESISTANCE: \quad polyethylene/ethylenevinylal cohol.$

styrene-butadiene rubber. viton.

GIVE LESS RESISTANCE: chloroprene rubber. chlorinated

polyethylene. natural rubber. nitrile rubber/PVC.

GIVE POOR RESISTANCE: leather. neoprene. nitrile rubber.

polyethylene. PVA. PVC. polyurethane.

Respiratory protection: Gas mask with filter type AX at conc. in air > exposure limit. Wear gas mask with filter type A if conc. in air > exposure limit. High vapour/gas concentration: self-contained respirator.



9 - Physical and Chemical Properties

Physical State: Liquid Upper/lower flammability or explosive limits

 Decomposition Temp
 No data available
 Evaporation Rate:
 4.1

 Flammability (solid, gas)
 No data available
 Solubility In Water:
 100%

10 – Stability and reactivity

Sparks. Overheating.

Acid chlorides.

11 – Toxicological Information

11.1 Information on the likely routes of exposure:

Eye contact Inhalation
Skin contact Ingestion

11.2 Symptoms related to the physical, chemical and toxicological characteristics:

Eyes: May cause eye irritation
Skin: May cause skin irritation

Inhalation: May cause throat irritation and coughing.

Ingestion: Ingestion is likely to be harmful or have adverse effects.

11.3 Delayed and immediate effects and also chronic effects from short and long term exposure

Eyes: Stinging, redness, tearing, irritation and/or burning.

Skin: Dry skin, irritation, redness, skin rash.

Inhalation: Slight Irritation, coughing.

Ingestion: Nausea, vomiting.

AFTER ABSORPTION OF HIGH QUANTITIES: FOLLOWING SYMPTOMS MAY APPEAR LATER:

Change in the haemogramme/blood composition. Drunkenness.

Headache. Coordination disorders.

Feeling of weakness. Disturbed motor response.

Abdominal pain. Disturbances of consciousness.

Muscular pain. Visual disturbances.

Central nervous system depression. Blindness.

Dizziness. Respiratory difficulties.

Mental confusion. Cramps/uncontrolled muscular contractions.

Chronic symptoms:

ON CONTINUOUS/REPEATED EXPOSURE/CONTACT:

Red skin. Headache.

Dry skin. Disturbed tactile sensibility.

Skin rash/inflammation. Visual disturbances.

MUTAGENIC DATA: Not classified.

Carcinogenic categories:

IARC (International Agency for Research on Cancer)

None of the ingredients is listed. NTP (National Toxicology Program) None of the ingredients is listed.

11.4 Numerical measures of toxicity

| Ingredient | Oral LD50, | Skin LD50, | Inhalation | Inhalation | Inhalation |
|---------------------------------|-------------|----------------|-----------------|-------------------|----------------|
| | mg/kg | mg/kg | Vapor LD50, | Dust/Mist LD50, | Gas LD50, |
| | | | mg/L/4hr | mg/L/4hr | ppm |
| Ethylene Glycol Monobutyl Ether | 1,414.00, | >2,000.00, Rat | 11.000 mg/l/4hr | No data available | 450 ppm/4hr |
| (111-76-2) | Guinea Pig | Category: 5 | | | |
| | Category: 4 | | | | |
| Methanol | 5000.00 Rat | 15800.00 | 85 mg/l/4hr | No data available | 64,000 ppm/4hr |
| 67-56-1 | | Rabbit | Rat | | |
| Isopropyl Alcohol | 5045.00 Rat | 12870.00 | 73 mg/l/4h | No data available | 64000 ppm/4hr |
| 67-63-0 | | Rabbit | Rat | | |

12- Ecological Information

12.1 Ecotoxicity (aquatic and terrestrial, where available)

Methanol

| LC50 Fish 1 | . 15400 mg/l (96 h; Lepomis macrochirus; Lethal) |
|---|--|
| EC50 Daphnia 1 | .> 10000 mg/l (48 h; Daphnia magna; Lethal) |
| LC50 Fish 2 | . 10800 mg/l 96 h; Salmo gairdneri (Oncorhynchus mykiss) |
| EC50 Daphnia 2 | . 24500 mg/l (48 h; Daphnia magna) |
| Threshold limit other aquatic organisms 1 | . 6600 mg/l (16 h; Pseudomonas putida) |
| Threshold limit algae 1 | . 530 mg/l (192 h; Microcystis aeruginosa) |
| Threshold limit algae 2 | . 8000 mg/l (168 h; Scenedesmus quadricauda). |
| | |

Isopropyl Alcohol

| 1sopi opyi Aiconoi | |
|-------------------------|---|
| LC50 fishes 1 | . 4200 mg/l (96 h; Rasbora heteromorpha; Flow-through system) |
| EC50 Daphnia 1 | .> 10000 mg/l (48 h; Daphnia magna) |
| LC50 fish 2 | . 9640 mg/l (96 h; Pimephales promelas; Lethal) |
| EC50 Daphnia 2 | . 13299 mg/l (48 h; Daphnia magna) |
| Threshold limit algae 1 | .> 1000 mg/l (72 h; Scenedesmus subspicatus; Growth rate) |
| Threshold limit algae 2 | . 1800 mg/l (72 h; Algae; Cell numbers) |
| | |

Ethylene Glycol Monobutyl Ether

| LC-50 Fish | (Oncorhynchus mykiss, 96 h): 1,474 mg/l |
|-----------------------------|---|
| EC-50 Aquatic invertebrates | (Water Flea, 48 h): 1,550 mg/l |
| Chronic Toxicity | |
| Fish | NOEC (Zebra Fish, 21 d): > 100 mg/l |
| Aquatic invertebrates | NOEC (daphnid, 21 d): 100 mg/l |
| Toxicity to Aquatic Plants | EC-50 (Algae (Pseudokirchneriella subcapitata), 72 h): 1,840 mg/l |

12.2 Persistence and degradability

| Methano |
|---------|
|---------|

| BCF fish 1 | < 10 (Leuciscus idus) |
|---------------------------|---|
| Log Pow | 0.77 (Experimental value; Other, Experimental value; Other) |
| Bioaccumulative potential | Low potential for bioaccumulation (BCF < 500). |

Isopropyl Alcohol

| Log Pow | 0.05 (Experimental value) |
|---------------------------|--|
| Bioaccumulative potential | Low potential for bioaccumulation (Log Kow < 4). |

Ethylene Glycol Monobutyl Ether

| Biodegradation | |
|-------------------|--------------------------------|
| Mobility in soil: | Expected to partition to water |

12.3 Bioaccumulative potential

Methanol

| biodegradable: | | |
|----------------|--|--|
| | | |
| | | |
| | | |
| | | |

| Biochemical oxygen demand (BOD) | 0.6 - 1.12 g O ² /g substance |
|---------------------------------|--|
| Chemical oxygen demand (COD) | 1.42 g O ² /g substance |
| ThOD | 1.5 g O ² /g substance |
| BOD (% of ThOD) | 0.8 % ThOD |

Isopropyl Alcohol

Readily biodegradable in water. Biodegradable in the soil. Biodegradable in the soil under anaerobic conditions. No (test)data on mobility of the substance available.

| Biochemical oxygen demand (BOD) | $1.19 \text{ g O}^2/\text{g substance}$ |
|---------------------------------|---|
| Chemical oxygen demand (COD) | 2.23 g O ² /g substance |
| ThOD | 2.40 g O ² /g substance |
| BOD (% of ThOD) | 0.49 % ThOD |

Ethylene Glycol Monobutyl Ether

| Biodegradation | |
|---------------------------|------------------------------------|
| Biological Oxygen Demand: | No data available. |
| Chemical Oxygen Demand: | No data available. |
| BOD/COD ratio | No data available. |
| Bioaccumulative potential | Potential to bioaccumulate is low. |
| Mobility in soil: | Expected to partition to water. |

12.4 Mobility in Soil

Methanol

| Surface tension | 0.023 N/m (20 °C) |
|-------------------|-------------------|
| Isopropyl Alcohol | |
| Surface tension | |

12.5 Other adverse effects.

No further specific information available.

Conclusion: Biodegradable

13- Disposal Considerations

Full text of H phrases:

Acute Tox. 3 (Dermal)Acute toxicity (dermal), Category 3

Waste treatment methods: Follow local, state and national regulations.

Disposal must be made in accordance with all relevant regulations.

Remove waste in accordance with local and/or national regulations. Hazardous waste shall not be mixed together with other waste. Different types of hazardous waste shall not be mixed together if this may entail a risk of pollution or create problems for the further management of the waste. Hazardous waste shall be managed responsibly. All entities that store, transport or handle hazardous waste shall take the necessary measures to prevent risks of pollution or damage to people or animals. Recycle by distillation. Remove to an authorized waste incinerator for solvents with energy recovery. Do not discharge into surface water. Obtain the consent of pollution control authorities before discharging to wastewater treatment plants.

| 14- Transpor | rt Information | | | | | |
|--|---|--------------------------|--------------------------|---|----------------------|--------------|
| METHANOL S | shipping name: | | 14.5 Ma | cking Group: II Special Provision rine Pollutant: N ccial Precautions: | | .1 |
| 15- Regulato | ry Information | | | | | |
| Regulatory Overepresented. | erview: The regulate | ory data in Section 15 | is not intended to be a | all-inclusive, only | selected regulations | are |
| [X] Ha | | ndard: [] Non Hazardo | us | | | |
| Cercla/Superful This product doe | | emicals subjected to | the reporting requirem | ents of SARA Sect | tion 313 | |
| listings) RQ (Reportable SARA Section 3 SARA Hazard C | ited States TSCA (T quantity, section 304 11/312 Hazard Class | of EPA's List of Lis | te) health hazard Fire l | nazard | | xic chemical |
| | ances Control Act/I of this product are list | • | entory. | | | |
| EPCRA (Emerg Methyl alcohol | gency Planning and 5000 lb | Community Right- | to Know Act) Chemic | cals and Reportab | ole Quantities (RQs | (Lbs)) |
| GHS: This product is c | lassified and labeled | according to the Glo | bally Harmonized Sys | tem (GHS). | | |
| State Regulation Component Methyl alcohol | Massachusetts X | New Jersey X | Pennsylvania X | Illinois X | Rhode Island X | |
| 16-Other In | formation | | | | | |

| Acute Tox. 3 (Inhalation) | .Acute toxicity (inhal.), Category 3 |
|---------------------------|--|
| Acute Tox. 3 (Oral) | .Acute toxicity (oral), Category 3 |
| Flam. Liq. 2 | .Flammable liquids, Category 2 |
| STOT SE 1 | Specific target organ toxicity — single exposure, Category 1 |
| H225 | .Highly flammable liquid and vapour |
| H301 | Toxic if swallowed |
| H311 | .Toxic in contact with skin |
| H331 | .Toxic if inhaled |
| H370 | Causes damage to organs |

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