SAFETY DATA SHEET



Issue Date 27-Aug-2014 Revision Date 27-Aug-2014 Version 1

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product identifier

Product Name S16 GLASS CLEANER CONCENTRATE

Other means of identification

Product Code S16 Synonyms None

Recommended use of the chemical and restrictions on use

Recommended Use Glass Cleaner Concentrate.
Uses advised against No information available

Details of the supplier of the safety data sheet

Manufacturer Address

Harvard Chemical Research, Inc., 3595 Zip Industrial Blvd., Atlanta, GA 30354

Emergency telephone number

Company Phone Number 1-404-761-0657 **24 Hour Emergency Phone Number** 800-424-9300

Emergency Telephone Chemtrec 1-800-424-9300

2. HAZARDS IDENTIFICATION

Classification

OSHA Regulatory Status

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Serious eye damage/eye irritation	Category 2
Carcinogenicity	Category 1A
Specific target organ toxicity (single exposure)	Category 3 - (H336)

Label elements

Emergency Overview

Danger

Hazard statements

Causes serious eye irritation May be harmful if swallowed May cause drowsiness or dizziness



Appearance Clear Physical state liquid Odor Alcohol

Precautionary Statements - Prevention

Obtain special instructions before use
Do not handle until all safety precautions have been read and understood
Use personal protective equipment as required
Avoid breathing dust/fume/gas/mist/vapors/spray
Use only outdoors or in a well-ventilated area

Precautionary Statements - Response

IF exposed or concerned: Get medical advice/attention

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing

Precautionary Statements - Storage

Store locked up

Store in a well-ventilated place. Keep container tightly closed

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

Other Information

 May be harmful if swallowed Unknown Acute Toxicity

66.1% of the mixture consists of ingredient(s) of unknown toxicity

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No.	Weight-%	Trade Secret
Isopropyl Alcohol	67-63-0	<25	*

^{*}The exact percentage (concentration) of composition has been withheld as a trade secret.

4. FIRST AID MEASURES

First aid measures

Eye contact Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids.

Consult a physician.

Skin Contact Rinse with clear water.

Inhalation Remove to fresh air. If not breathing, clear airway and start artificial respiration. If victim is

having trouble breathing, give supplemental oxygen, if available. Get medical attention.

Ingestion Immediately drink large quantities of water. Get medical attention.

Most important symptoms and effects, both acute and delayed

Symptoms No information available.

Indication of any immediate medical attention and special treatment needed

Note to physicians Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

Carbon dioxide (CO2). Dry chemical. Alcohol Foam.

Unsuitable extinguishing media Caution: Use of water spray when fighting fire may be inefficient.

Specific hazards arising from the chemical

No information available.

Explosion data

Sensitivity to Mechanical Impact None. Sensitivity to Static Discharge None.

Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions Ensure adequate ventilation, especially in confined areas.

Environmental precautions

Environmental precautions See Section 12 for additional ecological information.

Methods and material for containment and cleaning up

Methods for containment Prevent further leakage or spillage if safe to do so.

Methods for cleaning up Remove all sources of spark and dispose in accordance with federal and state regulations.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling Handle in accordance with good industrial hygiene and safety practice.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep container closed when not in use. Keep out of reach of children. Do not freeze. Follow

label instructions.

Incompatible materials Strong acids. OXIDIZERS.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines This product, as supplied, does not contain any hazardous materials with occupational

exposure limits established by the region specific regulatory bodies.

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Isopropyl Alcohol	STEL: 400 ppm	TWA: 400 ppm	IDLH: 2000 ppm
67-63-0	TWA: 200 ppm	TWA: 980 mg/m ³	TWA: 400 ppm
		(vacated) TWA: 400 ppm	TWA: 980 mg/m ³
		(vacated) TWA: 980 mg/m ³	STEL: 500 ppm
		(vacated) STEL: 500 ppm	STEL: 1225 mg/m ³
		(vacated) STEL: 1225 mg/m ³	

Appropriate engineering controls

Engineering Controls Showers

> Eyewash stations Ventilation systems.

Individual protection measures, such as personal protective equipment

Eye/face protection Tight sealing safety goggles.

Skin and body protection Wear Neoprene or protective rubber gloves. Drenching safety shower and eye wash

station.

Respiratory protection If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved

> respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be

provided in accordance with current local regulations.

General Hygiene Considerations Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state liquid **Appearance** Clear Odor Alcohol

Odor threshold Color blue No information available

Property Values Remarks • Method

Ha 9.5

Melting point/freezing point No information available

Boiling point / boiling range No information available

Flash point 28 C > 98 F

Evaporation rate >1

Flammability (solid, gas) No information available

Flammability Limit in Air

Upper flammability limit: No information available Lower flammability limit: No information available

Vapor pressure No information available Vapor density

<1 **Specific Gravity** .98

Water solubility completely soluble

Solubility in other solvents No information available **Partition coefficient** No information available **Autoignition temperature** No information available **Decomposition temperature** No information available Kinematic viscosity No information available

Dynamic viscosity No information available **Explosive properties** No information available Oxidizing properties No information available

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Other Information

Softening pointNo information availableMolecular weightNo information availableVOC Content (%)No information available

Density 8.16

Bulk density No information available

10. STABILITY AND REACTIVITY

Reactivity

No data available

Chemical stability

Stable under recommended storage conditions.

Possibility of Hazardous Reactions

None under normal processing.

Hazardous polymerization Hazardous polymerization does not occur.

Conditions to avoid

Extremes of temperature and direct sunlight.

Incompatible materials

Strong acids. OXIDIZERS.

Hazardous Decomposition Products

Carbon monoxide. Carbon dioxide (CO2). heat.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information No data available

Inhalation Irritation and difficulty in breathing.

Eye contact Severely irritating to eyes.

Skin Contact No data available.

Ingestion Gastric pain and vomiting.

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Isopropyl Alcohol 67-63-0	= 1870 mg/kg (Rat)	= 4059 mg/kg (Rabbit)	= 72600 mg/m ³ (Rat) 4 h

Information on toxicological effects

Symptoms No information available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

SensitizationNo information available.Germ cell mutagenicityNo information available.CarcinogenicityNo information available.

Chemical Name	ACGIH	IAPC	NTP	OSHA
Cilettical Name	ACGIII	IANC	1911	USITA

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Isopropyl Alcohol	-	Group 1	-	X
67-63-0				

Reproductive toxicity No information available. STOT - single exposure No information available. STOT - repeated exposure No information available. Aspiration hazard No information available.

Numerical measures of toxicity - Product Information

Unknown Acute Toxicity 66.1% of the mixture consists of ingredient(s) of unknown toxicity

The following values are calculated based on chapter 3.1 of the GHS document

12. ECOLOGICAL INFORMATION

Ecotoxicity

67.1% of the mixture consists of components(s) of unknown hazards to the aquatic environment

Chemical Name	Algae/aquatic plants	Fish	Crustacea
Isopropyl Alcohol	1000: 96 h Desmodesmus	9640: 96 h Pimephales promelas	13299: 48 h Daphnia magna mg/L
67-63-0	subspicatus mg/L EC50 1000: 72 h	mg/L LC50 flow-through 11130: 96	EC50
	Desmodesmus subspicatus mg/L	h Pimephales promelas mg/L LC50	
	EC50	static 1400000: 96 h Lepomis	
		macrochirus μg/L LC50	

Persistence and degradability

No information available.

Bioaccumulation

No information available.

Chemical Name	Partition coefficient
Isopropyl Alcohol	0.05
67-63-0	

Other adverse effects No information available

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal of wastes Disposal should be in accordance with applicable regional, national and local laws and

regulations.

Contaminated packaging Do not reuse container.

Chemical Name	California Hazardous Waste Status	
Isopropyl Alcohol	Toxic	
67-63-0	Ignitable	

14. TRANSPORT INFORMATION

Not regulated DOT

15. REGULATORY INFORMATION

International Inventories

TSCA Complies DSL/NDSL Complies **EINECS/ELINCS** Does not comply **ENCS** Does not comply **IECSC** Complies **KECL** Does not comply **PICCS** Complies **AICS** Complies

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances **IECSC** - China Inventory of Existing Chemical Substances **KECL** - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

AICS - Australian Inventory of Chemical Substances

US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

Chemical Name	SARA 313 - Threshold Values %
Isopropyl Alcohol - 67-63-0	1.0
SARA 311/312 Hazard Categories	
Acute health hazard	No
Chronic Health Hazard	No
Fire hazard	No
Sudden release of pressure hazard	No
Reactive Hazard	No

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

US State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Isopropyl Alcohol	X	X	X
67-63-0			

U.S. EPA Label Information

EPA Pesticide Registration Number Not Applicable

16. OTHER INFORMATION

NFPA Health hazards 0 Flammability 0 Instability 0 **Physical and Chemical**

Properties -

HMIS Health hazards 1 Flammability 2 Physical hazards 0 Personal protection X

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No information available

Disclaimer

The information provided in this Material Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet