

Material Safety Data Sheet

1. PRODUCT AND COMPANY IDENTIFICATION

Product name : THE CLASS HYDRO SHINE GLASS CLEANER
company : THE CLASS
Address : 562, Bunseong-ro, Gimhae-shi, Gyeongsangnam-do, KOREA
Telephone : +82 (0)70-7715-9922~3
Fax :
Web site : www.theclasskorea.co.kr
Recommended use of the chemical and restrictions on use
Recommended use : car care

2. HAZARDS IDENTIFICATION

Globally Harmonized System of Classification and Labelling of Chemicals(GHS)

Physical hazard : N/A

Health hazard : Serious eye damage/irritation CATEGORY 2A

Environment hazard : N/A

Label elements including precautionary statements



Symbol :

Signal word : WARNING

Hazard statement : H319: Causes serious eye irritation

Precautionary statements :

P201: Obtain special instructions before use

P202: Do not handle until all safety precautions have been read and understood.

P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. [As modified by IV ATP[5]]

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.

P280: Wear protective gloves/protective clothing/eye protection/face protection. [As modified by IV ATP]

P303+361+353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower. [As modified by IV ATP]

P308+313: If exposed: Call a POISON CENTER or doctor/physician.

P370+378: In case of fire: Use ... to extinguish. [As modified by IV ATP]

P403+235: Store in a well ventilated place. Keep cool.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients	CAS No.	Concentration
water	7732-18-5	≤90
Ethyl alcohol	64-17-5	≤12
D-LIMONENE	5989-27-5	≤0.001
Alcohols, (C=11-14)-iso-, (C=13)-rich, ethoxylated -	78330-21-9	≤1

4. FIRST AID MEASURES

In case of eye contact

Immediately flush eyes with plenty of water.
Get medical attention, if irritation persists.

In case of skin contact

Get medical attention, if irritation persists.
Wash with soap and water.

If inhaled

Remove to fresh air.
Get medical attention.

If swallowed

Get medical attention.

5. FIRE-FIGHTING MEASURES

Flammable properties

Flash point : **NOT MEASURABLE (ABOVE 100°C)**

Autoignition Temperature : NOT DETERMINED

Burning Rate : NOT DETERMINED

Suitable extinguishing media

- Alcohol resistant foam, CO₂, Water spray, dry sand

Specific hazards arising from the chemical

- It may cause metal corrosion.
- When fire, it may cause irritative and corrosiveness toxic gas.

Special protective equipment for fire-fighters

- Use proper protective equipments
- Get out of the place, and extinguish the fire with keeping a distance

6. ACCIDENTAL RELEASE MEASURES

Personal precautions

- Eliminate all of the ignition source

Environmental precautions

- Do not allow to be flown into waterway, drain and basement.

Methods and materials for containment and cleaning up

- Absorb liquid and flush contaminated area with detergent and water.

7. HANDLING AND STORAGE

Precautions for safe handling

- Be aware of substances to avoid and conditions.

Conditions for safe storage

- Keep only in original container.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameter

	KOSHA	US ACGIH
Ethyl alcohol	TWA – 1000ppm	STEL 1000 ppm

Personal protective equipment

Respiratory protection :

Wear respiratory protection suitable for the characteristics of the exposed material.

Hand protection :

Wear respiratory protection suitable for the characteristics of the exposed material.

Eye protection : not available

Wear respiratory protection suitable for the characteristics of the exposed material.

Skin and body protection : not available

Wear respiratory protection suitable for the characteristics of the exposed material.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : LIQUID

pH : 6-7

Flash point : NOT MEASURABLE (ABOVE 100°C) - Non hazardous materials

Autoignition temperature : NOT DETERMINED

Water solubility : WATER-SOLUBLE

Density : N/A

Melting range : N/A

Lower explosion limit : N/A

Upper explosion limit : N/A

10. STABILITY AND REACTIVITY

Chemical stability

- It may cause metal corrosion.
- When fire, it may cause irritative and corrosiveness toxic gas.

Conditions to avoid:

- Heat, spark, ignition sources

Materials to avoid :

- Combustible material

Hazardous decomposition products :

- When fire, it may cause irritative and corrosiveness toxic gas.

11. TOXICOLOGICAL INFORMATION

	Acute toxicity		Skin corrosion/irritation
	oral toxicity	dermal toxicity	
Ethyl alcohol	LD50 7060 mg/kg Rat (OECD Guideline 401)		
D-LIMONENE	LD50 5000 mg/kg Rat	LD50 > 5000 mg/kg Rabbit	Burning, itching, pain, and purpura observed (2hours test)

	Serious eye damage / eye irritation	Respiratory or skin sensitization
Ethyl alcohol	As a result of the test, conjunctivitis, conjunctival edema, iris damage, and corneal damage were occurred (rabbit)	
D-LIMONENE		skin sensitization (guinea pig)

	Germ cell mutagenicity	Carcino-genicity	Reproductive toxicity
Ethyl alcohol			
D-LIMONENE			

	Specific target organ toxicity		Aspiration hazard
	single exposure	repeated exposure	
Ethyl alcohol	may affect on central nervous system		
D-LIMONENE			

12. ECOLOGICAL INFORMATION

	Toxicity		
	Fish	Crustacean	Birds
Ethyl alcohol	LC50 > 100 mg/l 96 hr Pimephales promelas	LC50 5012 mg/l 48 hr Ceriodaphnia dubia (other guideline: ASTM E729-80)	ErC50 275 mg/l 72 hr Chlorella vulgaris (OECD Guideline 201)
D-LIMONENE	LC50 0.7 mg/l 96 hr Pimephales promelas	EC50 0.307 mg/l 48 hr	EC50 0.214 mg/l

	Persistence and degradability	Bioaccumulative potential		Mobility in soil
		Bio accumulation	Bio degradable	
Ethyl alcohol	log Kow -0.32	BCF 1	71 %	
D-LIMONENE	log Kow 4.38	BCF 1118.1	80 (%) 28 day	

13. DISPOSAL CONSIDERATIONS

Disposal consideration

Refer to local regulations

Disposal precaution

Refer to local regulations

14. TRANSPORT INFORMATION

UN TDG : N/A

IMDG : N/A

IATA : N/A

15. REGULATORY INFORMATION

Korea Industrial Safety and Health Act : N/A

Korea Hazardous Materials Safety Control Act : N/A

Korea Toxic Chemicals Control Act : N/A

16. OTHER INFORMATION

Issued Date : 2021.07.15

Revision No. :

Revision Date :

Reference

- GHS Classification : KOSHA
- Physical and chemical properties : Korea Fire Institute
- Transport information : KOSHA
- Toxic information : KOSHA
- Ecological information : KOSHA