



To Our Customers:

The attached Safety Data Sheet (SDS) was prepared by the vendor of the product you purchased through one of our divisions. We used the manufacturer's electronic document directly or scanned a paper copy and generated a file for our automated SDS delivery system.

All statements, technical information, and recommendations contained therein are solely that of the manufacturer of the product. We at Zep Inc. did not verify the accuracy and completeness of the statements and do not warrant or guarantee the information. We provide vendor SDSs to assist our customers in their compliance efforts. The attached document is in compliance with one of the respective country regulatory requirements noted below:

The OSHA Hazard Communication Standard (in the United States)
The Hazardous Products Regulations (in Canada)

We made every effort to deliver all of the information prepared by the manufacturer. We cannot anticipate all conditions under which this information will be used. If you have any questions about the statements on the SDS, please contact the company shown on the document.

Zep Inc. assumes no liability or responsibility for loss or damage resulting from the improper use or handling of this product, from incompatible product combinations, or from the failure to follow instructions, warnings, and advisories in the manufacturer's product label and Safety Data Sheet.

Sincerely,

Product Stewardship Team
Zep Inc.

Safety Data Sheet

Version No. 01/EN
Revision N.A.
Printing date 9. Jun 2021

US OSHA Hazard Communication Standard
(29 CFR 1910.1200)

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Product name Carbon Clean Liquid

1.2 Relevant identified uses of substance or mixture and uses advised against

Relevant identified uses carburetor cleaner

Uses advised against

1.3 Details of the supplier of the safety data sheet

Manufacturer/Supplier HK Technology Co., LTD

Street address 57-1 Heungan-Daero 427Beon-Gil, Dongan-Gu, Anyang-Si, Gyeonggi-Do, Republic of Korea

Telephone number (82) 31-427-0235, 0245 /

e-mail address Richard Huh/ President (sales@hktechnology.co.kr)

National contact: N.A.

1.4 Emergency telephone number (24 hr.accessible emergency phone number)
+82 1067220235

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

2.1.1 Classification of the chemical in accordance with paragraph (d) of §1910.1200

Skin irritation; Cat. 2

Skin sensitization; Cat. 1

Hazardous to Aquatic Environment (Acute/Chronic); Cat. 1

2.1.2 Additional information:

No information available.

2.2 Label elements

2.2.1 Labeling according to US OSHA Hazard Communication Standard (29 CFR 1910.1200)

Signal word

WARNING

Symbol(s)/Hazard pictograms



Hazard Statement(s)

H315Causes skin irritation

H317May cause an allergic skin reaction

H400Very toxic to aquatic life

H410Very toxic to aquatic life with long-lasting effects

Precautionary statement

- Prevention

P261 Avoid breathing dust/fume/gas/mist/vapors/spray.

P264Wash ... thoroughly after handling.

P272Contaminated work clothing should not be allowed out of the workplace

Safety Data Sheet

Version No. 01/EN
Revision N.A.
Printing date 9. Jun 2021

US OSHA Hazard Communication Standard
(29 CFR 1910.1200)

- Response

P273 Avoid release to the environment
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P321 Specific treatment
P391 Collect spillage.
P302+P352 IF ON SKIN: wash with plenty of water
P332+P313 IF SKIN irritation occurs: Get medical advice/attention.
P333+P313 IF SKIN irritation or rash occurs: Get medical advice/attention.
P501 Dispose of contents/container according to regulations.

- Disposal

Supplemental Hazard information No Data available

2.3. Other hazards

No Data available

SECTION 3: Composition/information on ingredients

3.1 Substances

Not applicable

3.2. Mixtures

Description of the mixture: Oily Surface Cleaner & Degreaser

Hazardous ingredients:

CAS No.	Substance name	%
112-34-5	2-(2-Butoxyethoxy)ethanol	5.0~9.0 %
5989-27-5	D-Limonene	1.0~3.0 %
1300-72-7	Sodium xylenesulphonate	2.0~6.0 %
7732-18-5	D/I water	85.0~90.0 %
6408-80-6	C.I. Acid Blue 145	0.001~0.002%

SECTION 4: First aid measures

4.1 Description of first aid measures

General notes Consult a physician if necessary.

Inhalation Remove victim to fresh air. If breathing has stopped, give artificial Respiration. Get medical attention immediately

Skin contact Remove contaminated clothing. Wash contact area with mild soap and water Rinse thoroughly

Eye contact Immediately irrigate eyes with flowing water for 15 minutes while Blinking eyelids. Get medical attention

Ingestion Do not induce vomiting. For a conscious victim, drink one or two cups of milk or water. Never give anything to an unconscious person. Get medical attention immediately

Self-protection of the first aider No information available.

4.2 Most important symptoms and effects, both acute and delayed

Safety Data Sheet

Version No. 01/EN
Revision N.A.
Printing date 9. Jun 2021

US OSHA Hazard Communication Standard
(29 CFR 1910.1200)

Treat symptomatically.

4.3. Indication of any immediate medical attention and special treatment needed

No information available.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media No information available.

5.2 Special hazards arising from the substance or mixture

No information available.

5.3 Advice for firefighters

Fire Fighter should observe all precautions that apply to any fire where chemicals are stored

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

6.1.1 For non-emergency personnel

Protective equipment: No information available.

Emergency procedures: Use personal protection recommended in Section 8.

6.1.2 For emergency responders

Ensure adequate ventilation, especially in confined areas.

6.2 Environmental precautions

Ensure adequate ventilation, especially in confined areas.

6.3 Methods and material for containment and cleaning up

6.3.1 For containment If product leaks or spills – contain then flood area with water – mop up

6.3.2 For cleaning up: No information available.

6.3.3 Other information Dispose in accordance with Federal, State and Local regulations

6.4 Reference to other sections

No information available.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Protective measures: Do not destroy or deface the label

Advice on general occupational hygiene: Handle in accordance with good industrial hygiene and safety practice.

7.2 Conditions for safe storage, including any incompatibilities

Store containers tightly closed and in an upright position

7.3. Specific end use(s)

The information required is contained in this Material Safety Data Sheet.

Safety Data Sheet

Version No. 01/EN
Revision N.A.
Printing date 9. Jun 2021

US OSHA Hazard Communication Standard
(29 CFR 1910.1200)

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limit values

2-(2-Butoxyethoxy)ethanol

Occupational exposure limit	2-(2-Butoxyethoxy)ethanol
TLV	10 ppm as TWA.
MAK	67 mg/m ³ , 10 ppm
EU-OEL	67.5 mg/m ³ , 10 ppm as TWA; 101.2 mg/m ³ , 15 ppm as STEL

D-Limonene

Occupational exposure limit	D-Limonene
US AIHAWHEELs	TWA; 30 ppm
Canada	TWA; 20 ppm, 111 mg/m ³ STEL; 30 ppm
CEL TWA	30 ppm, 165.6 mg/m ³

Biological limit values

No data available.

8.2 Exposure controls

Appropriate engineering controls:	Mechanical ventilation if vapor concentration becomes high.
Personal protective equipment	Eye wash stations and safety showers.
Eye / Face protection:	Safety glasses or goggles
Skin protection:	Impervious gloves and protective clothing
Respiratory protection	If vapor concentration becomes high, Use NIOSH/MSHA Approved respiratory protection.
Thermal hazards	No information available.

8.3 Environmental exposure controls

Substance/mixture related measures to prevent exposure:	No information available.
Instruction measures to prevent exposure:	No information available.
Organizational measures to prevent exposure:	No information available.
Technical measures to prevent exposure:	No information available.

SECTION 9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Safety Data Sheet

Version No. 01/EN
Revision N.A.
Printing date 9. Jun 2021

US OSHA Hazard Communication Standard
(29 CFR 1910.1200)

properties	Carbon Clean Liquid	2-(2-butoxyethoxy)ethanol	D-Limonene
a) Appearance	Liquid / Blue	Liquid	Liquid
b) Odour	Orange smel	No data	No data
c) Odourthreshold	No data	No data	No data
d) Melting point/freezing point	< 0°C	-66.15 °C	-74 °C
e) Boiling point and boiling range	> 100°C	229.85 °C	176 °C
f) Flammability	None flammable	Non flammable	No data
g) Lower and upper explosion limit	No data	No data	No data
h) Flash point	will not burn	114.85 °C	51 °C
i) Auto-ignition temperature	No data	209.85 °C	245 °C
j) Decomposition temperature	No data	No data	No data
k) pH	> 11.0	No data	No data
l) Kinematic viscosity	No data	6.49mPa.s	0.846 mPa.s
m) Solubility	Complete soluble	955 g/L @ 20 °C	5.69 mg/L @ 25 °C
n) Partition coefficient n-octanol/water	No data	1 @ 20 °C	4.38 @ 37 °C
o) Vapour pressure	< 1 (BuAc =1)	2.92 Pa @ 25 °C	2 hPa @ 24.85 °C
p) Density and/or relative density	1.01 ~ 1.02	0.955 g/cm ³	0.844 @ 20 °C
q) Relative vapour density	No data	No data	No data
r) Particle characteristics	No data	No data	No data

9.2 Other information

9.2.1 Information with regard to physical hazard classes

Not applicable.

9.2.2. Other safety characteristics

Not applicable.

SECTION 10: Stability and reactivity

10.1 Reactivity	Not applicable.
10.2 Chemical stability	Stable
10.3 Possibility of hazardous reactions	None Known
10.4 Conditions to avoid	None Known
10.5 Incompatible materials	Strong oxidizers and acids
10.6 Hazardous decomposition products	None Known.

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity	No data available
2-(2-butoxyethoxy)ethanol	Oral; LD50 2 410 mg/kg bw Dermal; LD50 2 764 mg/kg bw

Safety Data Sheet

Version No. 01/EN
Revision N.A.
Printing date 9. Jun 2021

US OSHA Hazard Communication Standard
(29 CFR 1910.1200)

<i>D-Limonene</i>	<i>Oral; LD50 2 000 mg/kg bw</i> <i>Dermal; LD50 5 000 mg/kg bw</i>
Skin corrosion/irritation	No data available
<i>2-(2-butoxyethoxy)ethanol</i>	<i>No adverse effect observed (not irritating)</i>
<i>D-Limonene</i>	<i>No adverse effect observed (not irritating)</i>
Serious eye damage/irritation	No data available
<i>2-(2-butoxyethoxy)ethanol</i>	<i>Adverse effect observed (irritating)</i>
<i>D-Limonene</i>	<i>No adverse effect observed (not irritating)</i>
Respiratory or skin sensitisation	No data available
<i>2-(2-butoxyethoxy)ethanol</i>	<i>No adverse effect observed (not sensitising)</i>
<i>D-Limonene</i>	<i>Adverse effect observed (sensitising)</i>
Germ cell mutagenicity	No data available
Carcinogenicity	No data available
Reproductive toxicity	No data available
Summary of evaluation of the CMR properties;	No data available
STOT-single exposure	No data available
<i>2-(2-butoxyethoxy)ethanol</i>	<i>Inhalation route; ((DNEL) 67.5 mg/m³</i>
STOT-repeated exposure	No data available
<i>2-(2-butoxyethoxy)ethanol</i>	<i>Oral route; (DNEL) 6.25 mg/kg bw/day</i> <i>Oral route; NOAEL 250 mg/kg bw/day (subchronic, rat)</i> <i>Inhalation route; (DNEL) 101.2 mg/m³</i> <i>Inhalation route; NOAEC 94 mg/m³ (subchronic, rat)</i>
<i>D-Limonene</i>	<i>Oral; (DNEL) 4.8 mg/kg bw/day</i> <i>Oral; LOAEL 1 000 mg/kg bw/day (subchronic, dog)</i> <i>Dermal; (DNEL) 4.8 mg/kg bw/day</i> <i>Inhalation; (DNEL) 16.6 mg/m³</i>
Aspiration hazard	No data available

11.2 Symptoms related to the physical, chemical and toxicological characteristics

No data available

SECTION 12: Ecological information

12.1 Ecotoxicity

No data available.

Acute (short-term) toxicity

2-(2-butoxyethoxy)ethanol

Fish; LC50 (4 days) 1.3 g/L

aquatic invertebrates; EC50 (48 h) 100 mg/L

algae and cyanobacteria; EC50 (4 days) 100 mg/L, EC50 (72 h) 1.101 g/L

microorganisms; EC10 (30 min) 1.995 g/L

Chronic (long-term) toxicity:

12.2 Persistence and degradability

No data available.

12.3 Bioaccumulative potential

No data available.

12.4 Mobility in soil

No data available.

Safety Data Sheet

Version No. 01/EN
Revision N.A.
Printing date 9. Jun 2021

US OSHA Hazard Communication Standard
(29 CFR 1910.1200)

12.5 Endocrine disrupting properties No data available.
12.6 Other adverse effects No data available.
12.7 Additional information No data available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Comply with a central government and local autonomous entity regulations. Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3

13.1.1 Product / Packaging disposal:

Do not reuse container.

13.1.2 Waste treatment-relevant information

Waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

13.1.3 Sewage disposal-relevant information

No information available.

13.1.4 Other disposal recommendations

No information available.

SECTION 14: Transport Information

14.1 Land transport (US DOT ground)

UN number or ID number	This product is Not Regulated
Proper Shipping Description	No information available.
Transport hazard class(es)	No information available.
Packing group	No information available.
DOT Marine Pollutant	No information available.
Reportable Quantity (RQ)	No information available.

14.2 Air transport (ICAO-TI / IATA-DGR)

UN number or ID number	This product is Not Regulated
UN proper shipping name	No information available.
Transport hazard class(es)	No information available.
Packing group	No information available.
Special Provisions	No information available.
Special precautions for user	No information available.

14.3 Sea transport (IMDG)

UN number or ID number	This product is Not Regulated
Proper Shipping Description	No information available.
Transport hazard class(es)	No information available.
Packing group	No information available.
Marine Pollutant	No information available.
Special Provisions	No information available.

Safety Data Sheet

Version No. 01/EN
Revision N.A.
Printing date 9. Jun 2021

US OSHA Hazard Communication Standard
(29 CFR 1910.1200)

Special precautions for user

No information available.

14.4 Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code)

No information available.

14.5 Additional information

No information available.

SECTION 15: Regulatory information

15.1 Federal Regulations

Toxic Substances Control Act (TSCA) :

CAS# 5989-27-5 is listed on the TSCA inventory.

California Prop. 65

WARNING: This product can expose you to chemicals including 7-methyl-3-methyleneocta-1,6diene, which is/are known to the state of California to cancer. For more information go to www.P65Warnings.ca.gov.



CAS# 123-35-3 is listed on the California Prop 65.

The Superfund Amendments and Reauthorization Act (SARA) :No data available.

Canada DSL/NDL: CAS# 5989-27-5 is listed on Canada's DSL List.

Canada - WHMISCAS# 5989-27-5has a WHMIS classification of B3, D2B.

Canadian Ingredient Disclosure ListCAS# 5989-27-5 is listed on the Canadian Ingredient Disclosure List.

15.2 Regional regulatory information:

For this substance a chemical safety assessment is not required.

16. OTHER INFORMATION

The contents and format of this MSDS/SDS are in accordance with Regulation (EC) No 1907/2006.

16.1 Indication of changes

Creation Date : June 14, 2021

Revision Date : -

16.2 Abbreviations and acronyms

No information available.

16.3 Key literature references and sources for data

UNECE Globally Harmonized System of Classification and Labelling of Chemicals (GHS) (<https://unece.org/ghs-rev8-2019>)

ECHA Substance Infocard (<https://echa.europa.eu/fr/substance-information/-/substanceinfo/100.025.284>)

ECHA Hazard classification & labelling (<https://echa.europa.eu/fr/brief-profile/-/briefprofile/100.025.284>)

OSHA - Hazard Communication Standard: Safety Data Sheets

Canadian Centre for Occupational Health & SafetyWHMIS 2015 - Safety Data Sheet (SDS)

16.4 Further information

No information available.

Safety Data Sheet

Version No.	01/EN	US OSHA Hazard Communication Standard
Revision	N.A.	(29 CFR 1910.1200)
Printing date	9. Jun 2021	

• **Disclaimer of Liability**

The information in this MSDS/SDS was obtained from source which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use or disposal of the product are beyond our control and may be beyond our knowledge. For this and other reason, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of component in another product, this MSDS/SDS information may not be applicable.

***** End of Document