

Safety Data Sheet
acc. to OSHA HCS

Printing date 08/08/2016

Reviewed on 08/08/2016

1 Identification

- **Product identifier**
- **Product Name:** HALOETHERS & PHTHALATES
- **Part Number:** CLPS-C
- **Application of the substance / the mixture** Certified Reference Material
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
SPEX CertiPrep, LLC.
203 Norcross Ave, Metuchen,
NJ 08840 USA
- **Information department:** product safety department
- **Emergency telephone number:**
Emergency Phone Number (24 hours)
CHEMTREC (800-424-9300)
Outside US: 703-527-3887

2 Hazard(s) identification

- **Classification of the substance or mixture**



GHS08 Health hazard

Carc. 1B H350 May cause cancer.
Repr. 1 H360 May damage fertility or the unborn child.



GHS07

Acute Tox. 4 H302 Harmful if swallowed.
Skin Sens. 1 H317 May cause an allergic skin reaction.

- **Label elements**
- **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms**



GHS07



GHS08

- **Signal word** Danger
- **Hazard-determining components of labeling:**
dichloromethane
bis(2-chloroethyl) ether
bis(2-ethylhexyl) phthalate
bis(2-chloroethoxy)methane
- **Hazard statements**
H302 Harmful if swallowed.
H317 May cause an allergic skin reaction.
H350 May cause cancer.
H360 May damage fertility or the unborn child.
- **Precautionary statements**
Avoid breathing dust/fume/gas/mist/vapors/spray
Wear protective gloves.
Specific treatment (see on this label).
IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.
Store locked up.
Dispose of contents/container in accordance with local/regional/national/international regulations.
- **Classification system:**
- **NFPA ratings (scale 0 - 4)**



Health = 1
Fire = 0
Reactivity = 0

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· **HMIS-ratings (scale 0 - 4)**

HEALTH	1
FIRE	0
REACTIVITY	0

Health = *1

Fire = 0

Reactivity = 0

- **Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

3 Composition/information on ingredients

- **Chemical characterization: Mixtures**
- **Description:** Mixture of the substances listed below with nonhazardous additions.

· **Dangerous components:**

75-09-2	dichloromethane	97.4%
101-55-3	4-Bromodiphenyl ether	0.2%
111-44-4	bis(2-chloroethyl) ether	0.2%
117-81-7	bis(2-ethylhexyl) phthalate	0.2%
621-64-7	nitrosodipropylamine	0.2%
85-68-7	BBP	0.2%
84-74-2	dibutyl phthalate	0.2%
117-84-0	Di-n-octyl Phthalate	0.2%
84-66-2	diethyl phthalate	0.2%

· **Chemical identification of the substance/preparation**

111-91-1	bis(2-chloroethoxy)methane	0.2%
108-60-1	bis(2-chloro-1-methylethyl) ether	0.2%
86-30-6	nitrosodiphenylamine	0.2%
131-11-3	dimethyl phthalate	0.2%
7005-72-3	4-Chlorophenyl-phenyl ether	0.2%

4 First-aid measures

- **Description of first aid measures**
- **General information:** Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
- **After inhalation:**
Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.
In case of unconsciousness place patient stably in side position for transportation.
- **After skin contact:** Immediately rinse with water.
- **After eye contact:** Rinse opened eye for several minutes under running water.
- **After swallowing:** Immediately call a doctor.
- **Information for Doctor:**
- **Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed** No further relevant information available.

5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:** CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:** Mouth respiratory protective device.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures** Not required.
- **Environmental precautions:**
Do not allow product to reach sewage system or any water course.
Inform respective authorities in case of seepage into water course or sewage system.
Do not allow to enter sewers/ surface or ground water.

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- **Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Dispose contaminated material as waste according to item 13.
Ensure adequate ventilation.
- **Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7 Handling and storage

- **Handling:**
- **Precautions for safe handling**
Ensure good ventilation/exhaustion at the workplace.
Open and handle receptacle with care.
Prevent formation of aerosols.
- **Information about protection against explosions and fires:** Keep respiratory protective device available.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** Keep receptacle tightly sealed.
- **Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **Control parameters**
- **Components with limit values that require monitoring at the workplace:**
The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit.
At this time, the other constituents have no known exposure limits.

75-09-2 dichloromethane

PEL	Short-term value: 125 ppm Long-term value: 25 ppm see 29 CFR 1910.1052
REL	See Pocket Guide App. A
TLV	Long-term value: 174 mg/m ³ , 50 ppm BEI

111-44-4 bis(2-chloroethyl) ether

PEL	Ceiling limit value: 90 mg/m ³ , 15 ppm Skin
REL	Short-term value: 60 mg/m ³ , 10 ppm Long-term value: 30 mg/m ³ , 5 ppm Skin; See Pocket Guide App. A
TLV	Short-term value: 58 mg/m ³ , 10 ppm Long-term value: 29 mg/m ³ , 5 ppm Skin

117-81-7 bis(2-ethylhexyl) phthalate

PEL	Long-term value: 5 mg/m ³
REL	Short-term value: 10 mg/m ³ Long-term value: 5 mg/m ³ See Pocket Guide App. A
TLV	Long-term value: 5 mg/m ³

84-74-2 dibutyl phthalate

PEL	Long-term value: 5 mg/m ³
REL	Long-term value: 5 mg/m ³
TLV	Long-term value: 5 mg/m ³

84-66-2 diethyl phthalate

REL	Long-term value: 5 mg/m ³
TLV	Long-term value: 5 mg/m ³

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· **Ingredients with biological limit values:****75-09-2 dichloromethane**

BEI	0.3 mg/L
	Medium: urine
	Time: end of shift
	Parameter: Dichloromethane (semi-quantitative)

· **Additional information:** The lists that were valid during the creation were used as basis.· **Exposure controls**· **Personal protective equipment:**· **General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing.
Wash hands before breaks and at the end of work.
Store protective clothing separately.
Avoid contact with the eyes and skin.

· **Breathing equipment:**

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

· **Protection of hands:**

Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **Eye protection:**

Safety glasses



Tightly sealed goggles

9 Physical and chemical properties· **Information on basic physical and chemical properties**· **General Information**· **Appearance:**

Form:	Liquid
Color:	According to product specification
Odor:	Characteristic
Odour Threshold:	Not applicable.

· **pH-value:** Not applicable.· **Change in condition**

Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	40 °C (104 °F)

· **Flash point:** Not applicable.· **Flammability (solid, gaseous):** Not applicable.· **Ignition temperature:** 605 °C (1121 °F)· **Decomposition temperature:** Not applicable.· **Auto igniting:** Product is not selfigniting.· **Danger of explosion:** Product does not present an explosion hazard.

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· Explosion limits:	
Lower:	13.0 Vol %
Upper:	22.0 Vol %
· Vapor pressure at 20 °C (68 °F): 453 hPa (340 mm Hg)	
· Density Not applicable.	
· Relative density Not applicable.	
· Vapor density Not applicable.	
· Evaporation rate Not applicable.	
· Solubility in / Miscibility with	
Water:	Not miscible or difficult to mix.
· Partition coefficient (n-octanol/water): Not applicable.	
· Viscosity:	
Dynamic:	Not applicable.
Kinematic:	Not applicable.
· Solvent content:	
Organic solvents:	97.4 %
Solids content: 1.2 %	
· Other information No further relevant information available.	

10 Stability and reactivity

- **Reactivity** No further relevant information available.
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**

· LD/LC50 values that are relevant for classification:		
75-09-2 dichloromethane		
Oral	LD50	1600 mg/kg (rat)
Inhalative	LC50/4 h	88 mg/l (rat)
111-44-4 bis(2-chloroethyl) ether		
Oral	LD50	75 mg/kg (rat)
Dermal	LD50	90 mg/kg (rabbit)
Inhalative	LC50/4 h	0.33 mg/l (rat)
85-68-7 BBP		
Oral	LD50	2330 mg/kg (rat)

- **Primary irritant effect:**
- **on the skin:** No irritant effect.
- **on the eye:** No irritating effect.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**
The product shows the following dangers according to internally approved calculation methods for preparations:
Harmful
Carcinogenic.
- **Carcinogenic categories**

· IARC (International Agency for Research on Cancer)		
75-09-2	dichloromethane	2B
111-44-4	bis(2-chloroethyl) ether	3
108-60-1	bis(2-chloro-1-methylethyl) ether	3
117-81-7	bis(2-ethylhexyl) phthalate	2B

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86-30-6	nitrosodiphenylamine	3
621-64-7	nitrosodipropylamine	2B
85-68-7	BBP	3
· NTP (National Toxicology Program)		
75-09-2	dichloromethane	R
117-81-7	bis(2-ethylhexyl) phthalate	R
621-64-7	nitrosodipropylamine	R
· OSHA-Ca (Occupational Safety & Health Administration)		
75-09-2	dichloromethane	


12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behavior in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Ecotoxicological effects:**
- **Remark:** Harmful to fish
- **Additional ecological information:**
- **General notes:**
Water hazard class 3 (Self-assessment): extremely hazardous for water
Do not allow product to reach ground water, water course or sewage system, even in small quantities.
Danger to drinking water if even extremely small quantities leak into the ground.
Harmful to aquatic organisms
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:** Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

· UN-Number	
· DOT, ADR, IMDG, IATA	UN1593
· UN proper shipping name	
· DOT	Dichloromethane
· ADR	1593 Dichloromethane
· IMDG, IATA	DICHLOROMETHANE
· Transport hazard class(es)	
· DOT	
	
· Class	6.1 Toxic substances
· Label	6.1

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· ADR, IMDG, IATA	
	
· Class	6.1 Toxic substances
· Label	6.1
· Packing group	
· DOT, ADR, IMDG, IATA	III
· Environmental hazards:	Not applicable.
· Special precautions for user	Warning: Toxic substances
· Danger code (Kemler):	60
· EMS Number:	F-A,S-A
· Segregation groups	Liquid halogenated hydrocarbons
· Stowage Category	A
· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
· Transport/Additional information:	
· ADR	
· Excepted quantities (EQ)	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· IMDG	
· Limited quantities (LQ)	5L
· Excepted quantities (EQ)	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· UN "Model Regulation":	UN 1593 DICHLOROMETHANE, 6.1, III

15 Regulatory information

· Safety, health and environmental regulations/legislation specific for the substance or mixture

· Sara

· Section 355 (extremely hazardous substances):	
111-44-4	bis(2-chloroethyl) ether
· Section 313 (Specific toxic chemical listings):	
75-09-2	dichloromethane
111-44-4	bis(2-chloroethyl) ether
111-91-1	bis(2-chloroethoxy)methane
108-60-1	bis(2-chloro-1-methylethyl) ether
117-81-7	bis(2-ethylhexyl) phthalate
86-30-6	nitrosodiphenylamine
621-64-7	nitrosodipropylamine
84-74-2	dibutyl phthalate
131-11-3	dimethyl phthalate
· TSCA (Toxic Substances Control Act):	
All ingredients are listed.	
· Proposition 65	
· Chemicals known to cause cancer:	
75-09-2	dichloromethane
111-44-4	bis(2-chloroethyl) ether
108-60-1	bis(2-chloro-1-methylethyl) ether
117-81-7	bis(2-ethylhexyl) phthalate
86-30-6	nitrosodiphenylamine
621-64-7	nitrosodipropylamine

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· Chemicals known to cause reproductive toxicity for females:		
84-74-2	dibutyl phthalate	
· Chemicals known to cause reproductive toxicity for males:		
117-81-7	bis(2-ethylhexyl) phthalate	
84-74-2	dibutyl phthalate	
· Chemicals known to cause developmental toxicity:		
117-81-7	bis(2-ethylhexyl) phthalate	
85-68-7	BBP	
84-74-2	dibutyl phthalate	
· Carcinogenic categories		
· EPA (Environmental Protection Agency)		
75-09-2	dichloromethane	L
101-55-3	4-Bromodiphenyl ether	D
111-44-4	bis(2-chloroethyl) ether	B2
111-91-1	bis(2-chloroethoxy)methane	D
117-81-7	bis(2-ethylhexyl) phthalate	B2
86-30-6	nitrosodiphenylamine	B2
621-64-7	nitrosodipropylamine	B2
85-68-7	BBP	C
84-74-2	dibutyl phthalate	D
131-11-3	dimethyl phthalate	D
84-66-2	diethyl phthalate	D
· TLV (Threshold Limit Value established by ACGIH)		
75-09-2	dichloromethane	A3
111-44-4	bis(2-chloroethyl) ether	A4
117-81-7	bis(2-ethylhexyl) phthalate	A3
84-66-2	diethyl phthalate	A4
· NIOSH-Ca (National Institute for Occupational Safety and Health)		
75-09-2	dichloromethane	
111-44-4	bis(2-chloroethyl) ether	
117-81-7	bis(2-ethylhexyl) phthalate	

· **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).

· **Hazard pictograms**



GHS07

GHS08

· **Signal word** Danger

· **Hazard-determining components of labeling:**

dichloromethane
bis(2-chloroethyl) ether
bis(2-ethylhexyl) phthalate
bis(2-chloroethoxy)methane

· **Hazard statements**

H302 Harmful if swallowed.
H317 May cause an allergic skin reaction.
H350 May cause cancer.
H360 May damage fertility or the unborn child.

· **Precautionary statements**

Avoid breathing dust/fume/gas/mist/vapors/spray
Wear protective gloves.
Specific treatment (see on this label).
IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.
Store locked up.
Dispose of contents/container in accordance with local/regional/national/international regulations.

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· **National regulations:**

· **Information about limitation of use:**

Workers are not allowed to be exposed to the hazardous carcinogenic materials contained in this preparation. Exceptions can be made by the authorities in certain cases.

· **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Department issuing SDS:** product safety department

· **Contact:**

SPEX CertiPrep, LLC.

1-732-549-7144

· **Date of preparation / last revision** 08/08/2016 / -

· **Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

ACGIH: American Conference of Governmental Industrial Hygienists

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety & Health

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

BEL: Biological Exposure Limit

Acute Tox. 4: Acute toxicity – Category 4

Skin Sens. 1: Skin sensitisation – Category 1

Carc. 1B: Carcinogenicity – Category 1B

Repr. 1: Reproductive toxicity – Category 1

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