SAFETY DATA SHEET
CYCLO® BRAKE & PARTS CLEAN

According to Regulation (EU) No 453/2010

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Product name CYCLO® BRAKE & PARTS CLEAN

Product No. C-32

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

Identified uses Cleaner for brakes and related parts.

1.3. Details of the supplier of the safety data sheet

Supplier

Cyclo Industries Inc.
Regent House Business Centre
24-25 Nutford Place
Marble Arch
London
W1H 5YN
0797 6921836
E mail ehs@cyclo.com

1.4. Emergency telephone number

001 312 906 6194

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Classification (1999/45/EEC) Repr. Cat. 2;R60. Carc. Cat. 3;R40, Repr. Cat. 3;R63. N;R51/53.

Human health

See section 11 for additional information on health hazards.

Environment

Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Physical and Chemical Hazards

Aerosol containers can explode when heated, due to excessive pressure build-up.

2.2. Label elements

Contains TETRACHLOROETHYLENE
1-BROMOPROPANE

Detergent Labelling:

>= 30% halogenated hydrocarbons

Labelling

Toxic

Dangerous for the environment

Risk Phrases

R40	Limited evidence of a carcinogenic effect.
R51/53	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

R60	May impair fertility.
R63	Possible risk of harm to the unborn child.

Safety Phrases

S23	Do not breathe vapour/spray.
S36/37/39	Wear suitable protective clothing, gloves and eye/face protection.
S38	In case of insufficient ventilation, wear suitable respiratory equipment.
S45	In case of accident or if you feel unwell, seek medical advice immediately (show label where possible).
S53	Avoid exposure - obtain special instructions before use.
S57	Use appropriate containment to avoid environmental contamination.
S61	Avoid release to the environment. Refer to special instructions/safety data sheets.
P11	Restricted to professional users.
A1	Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C. Do not pierce or burn, even after use.

2.3. Other hazards

This product does not contain any PBT or vPvB substances.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2. Mixtures

TETRACHLOROETHYLENE **60-100%**

CAS-No.: 127-18-4 **EC No.: 204-825-9**

Classification (EC 1272/2008)	Classification (67/548/EEC)
Carc. 2 - H351	Carc. Cat. 3;R40
Aquatic Chronic 2 - H411	N;R51/53

1-BROMOPROPANE **5-10%**

CAS-No.: 106-94-5 **EC No.: 203-445-0**

Classification (EC 1272/2008)	Classification (67/548/EEC)
Flam. Liq. 2 - H225	F;R11
Skin Irrit. 2 - H315	Repr. Cat. 2;R60
Eye Irrit. 2 - H319	Repr. Cat. 3;R63
Repr. 1B - H360FD	Xn;R48/20
STOT SE 3 - H335	Xi;R36/37/38
STOT SE 3 - H336	R67
STOT RE 2 - H373	

CO2 PROPELLANT **1-5%**

CAS-No.: 124-38-9 **EC No.: 204-696-9**

Substance with a Community workplace exposure limit.

Classification (EC 1272/2008)	Classification (67/548/EEC)
Not classified.	Not classified.

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

Inhalation

Move the exposed person to fresh air at once. Provide rest, warmth and fresh air. Rinse nose and mouth with water. Get medical attention.

Ingestion

NEVER MAKE AN UNCONSCIOUS PERSON VOMIT OR DRINK FLUIDS! Rinse mouth thoroughly. Get medical attention immediately!

Skin contact

Remove affected person from source of contamination. Remove contaminated clothing. Wash the skin immediately with soap and water. Get medical attention if any discomfort continues.

Eye contact

Make sure to remove any contact lenses from the eyes before rinsing. Promptly wash eyes with plenty of water while lifting the eye lids. Continue to rinse for at least 15 minutes. Get medical attention if any discomfort continues.

4.2. Most important symptoms and effects, both acute and delayed

General information

The severity of the symptoms described will vary dependant of the concentration and the length of exposure.

Inhalation.

Vapours may cause drowsiness and dizziness.

Ingestion

May cause stomach pain or vomiting.

Skin contact

Prolonged skin contact may cause redness and irritation.

Eye contact

Prolonged contact may cause redness and/or tearing.

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

Treat Symptomatically.

SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing media

Extinguishing media

This product is not flammable. Use fire-extinguishing media appropriate for surrounding materials.

5.2. Special hazards arising from the substance or mixture

Unusual Fire & Explosion Hazards

No unusual fire or explosion hazards noted.

Specific hazards

Fire creates: Toxic gases/vapours/fumes of: Carbon monoxide (CO). Carbon dioxide (CO_2).

5.3. Advice for firefighters

Special Fire Fighting Procedures

Cool containers exposed to flames with water until well after the fire is out. Keep run-off water out of sewers and water sources. Dike for water control.

Protective equipment for fire-fighters

Self contained breathing apparatus and full protective clothing must be worn in case of fire.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Wear protective clothing as described in Section 8 of this safety data sheet.

6.2. Environmental precautions

Avoid discharge to the aquatic environment.

6.3. Methods and material for containment and cleaning up

Stop leak if possible without risk. Absorb in vermiculite, dry sand or earth and place into containers. Flush with plenty of water to clean spillage area. Do not contaminate water sources or sewer.

6.4. Reference to other sections

Wear protective clothing as described in Section 8 of this safety data sheet. See section 11 for additional information on health hazards.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

Provide good ventilation. Avoid spilling, skin and eye contact. Avoid inhalation of vapours and spray mists. Pregnant women should not work with the product, if there is the least risk of exposure.

7.2. Conditions for safe storage, including any incompatibilities

Aerosol cans: Must not be exposed to direct sunlight or temperatures above 50°C. Keep away from heat, sparks and open flame.

7.3. Specific end use(s)

The identified uses for this product are detailed in Section 1.2.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Name	STD	TWA - 8 Hrs		STEL - 15 Min		Notes
CO2 PROPELLANT	WEL	5000 ppm	9150 mg/m3	15000 ppm	27400 mg/m3	
TETRACHLOROETHYLENE	WEL	50 ppm	345 mg/m3	100 ppm	689 mg/m3	

WEL = Workplace Exposure Limit.

8.2. Exposure controls

Engineering measures

Provide adequate ventilation. Observe occupational exposure limits and minimize the risk of inhalation of spray.

Respiratory equipment

No specific recommendation made, but respiratory protection may still be required under exceptional circumstances when excessive air contamination exists. Use respiratory equipment with gas filter, type AX.

Hand protection

Use suitable protective gloves if risk of skin contact. Use protective gloves made of: Polyvinyl alcohol (PVA). or Viton rubber (fluor rubber).

Eye protection

Wear approved chemical safety goggles where eye exposure is reasonably probable.

Other Protection

Wear appropriate clothing to prevent any possibility of skin contact.

Hygiene measures

No specific hygiene procedures noted, but good personal hygiene practices are always advisable, especially when working with chemicals. Wash hands at the end of each work shift and before eating, smoking and using the toilet. Wash promptly if skin becomes wet or contaminated. Promptly remove any clothing that becomes contaminated. When using do not eat, drink or smoke.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Appearance	Aerosol.
Colour	Colourless.
Odour	Sweetish.
Solubility	Insoluble in water
Initial boiling point and boiling range	121ºC
Relative density	1.62 @25ºC
Vapour density (air=1)	4.1
Vapour pressure	13 mm Hg @20ºC
Flash point	N/A
Comments	Information given concerns the concentrated solution.

9.2. Other information

Not known.

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity

There are no known reactivity hazards associated with this product.

10.2. Chemical stability

Stable under normal temperature conditions and recommended use.

10.3. Possibility of hazardous reactions

Hazardous Polymerisation

Will not polymerise.

10.4. Conditions to avoid

Avoid heat, flames and other sources of ignition. Avoid excessive heat for prolonged periods of time.

10.5. Incompatible materials

Materials To Avoid

Strong oxidising substances. Strong alkalis. Strong acids.

10.6. Hazardous decomposition products

Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Other Health Effects

Carcinogen Category 3. Toxic to Reproductive Health Category 3.

Inhalation

In high concentrations, vapours may irritate throat and respiratory system and cause coughing.

Ingestion

May irritate and cause stomach pain, vomiting and diarrhoea.

Skin contact

Liquid may irritate skin.

Eye contact

Splashes may irritate.

Specific effects

Contains a substance/a group of substances with possible risk of harm to the unborn child and with possible risk of impaired fertility.
Contains a substance/a group of substances which may cause cancer.

Toxicological information on ingredients.

1-BROMOPROPANE (CAS: 106-94-5)

Acute toxicity:

Acute Toxicity (Oral LD50)

> 2000 mg/kg Rat

REACH dossier information

Conclusive data but not sufficient for classification.

Acute Toxicity (Dermal LD50)

> 2000 mg/kg Rat

REACH dossier information

Conclusive data but not sufficient for classification.

Acute Toxicity (Inhalation LC50)

Not available.

Skin Corrosion/Irritation:

Dose

0.5ml 24 hr Rabbit

Erythema\eschar score

No erythema (0).

Oedema score

No oedema (0).

REACH dossier information

Not irritating.

Respiratory or skin sensitisation:

Skin sensitisation

Guinea pig maximization test (GPMT): Guinea Pig

REACH dossier information

Not Sensitising.

Germ cell mutagenicity:

Genotoxicity - In Vitro

Bacterial Reverse Mutation Test

REACH dossier information

Positive.

Conclusive data but not sufficient for classification.

Genotoxicity - In Vivo

Chromosome aberration:

REACH dossier information

Negative.

Conclusive data but not sufficient for classification.

Carcinogenicity:

Carcinogenicity

Not available.

Reproductive Toxicity:

Suspected of damaging fertility.

May damage the unborn child.

Specific target organ toxicity - repeated exposure:

STOT - Repeated exposure

NOAEC <2 mg/l/6hr/day Inhalation. Rat

REACH dossier information

Not classified as a specific target organ toxicant after repeated exposure.

Acute toxicity:

Acute Toxicity (Oral LD50)

3835 mg/kg Rat

REACH dossier information

Conclusive data but not sufficient for classification.

Acute Toxicity (Dermal LD50)

Not available.

Acute Toxicity (Inhalation LC50)

2613 ppm Mouse 4 hours

REACH dossier information

Conclusive data but not sufficient for classification.

Skin Corrosion/Irritation:

Dose

0.5ml 4 hr Rabbit

Erythema\eschar score

Severe erythema (beef redness) to eschar formation preventing grading of erythema (4).

Oedema score

Very slight oedema -barely perceptible (1).

REACH dossier information

Irritating.

Respiratory or skin sensitisation:

Skin sensitisation

Local Lymph Node Assay (LLNA) Mouse

REACH dossier information

Sensitising.

Germ cell mutagenicity:

Genotoxicity - In Vitro

Gene Mutation:

REACH dossier information

Negative.

This substance has no evidence of mutagenic properties.

Genotoxicity - In Vivo

Chromosome aberration:

REACH dossier information

Negative.

This substance has no evidence of mutagenic properties.

Carcinogenicity:

Carcinogenicity

Not available.

Reproductive Toxicity:

Reproductive Toxicity - Fertility

Two-generation study: NOAEL 100 ppm Inhalation. Rat

REACH dossier information

This substance has no evidence of toxicity to reproduction.

Reproductive Toxicity - Development

Maternal toxicity: NOEC 250 ppm Inhalation. Rat

REACH dossier information

No evidence of reproductive toxicity in animal studies

Specific target organ toxicity - repeated exposure:

STOT - Repeated exposure

390 mg/kg Oral Mouse

REACH dossier information

Not classified as a specific target organ toxicant after repeated exposure.

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity

Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

12.1. Toxicity

Ecological information on ingredients.

1-BROMOPROPANE (CAS: 106-94-5)

Acute Toxicity - Fish

96 hours 24.3 mg/l Onchorhynchus mykiss (Rainbow trout)

REACH dossier information

Acute Toxicity - Aquatic Invertebrates

EC50 48 hours 99.3 mg/l Daphnia magna

REACH dossier information

Acute Toxicity - Aquatic Plants

NOEC 96 hours 12.4 mg/l Scenedesmus subspicatus

REACH dossier information

TETRACHLOROETHYLENE (CAS: 127-18-4)

Acute Toxicity - Fish

LC50 96 hours 5 mg/l Onchorhynchus mykiss (Rainbow trout)

REACH dossier information

Acute Toxicity - Aquatic Invertebrates

EC50 48 hours 8.5 mg/l Daphnia magna

REACH dossier information

Acute Toxicity - Aquatic Plants

EC50 72 hours 3.64 mg/l Freshwater algae

REACH dossier information

12.2. Persistence and degradability

Degradability

The degradability of the product has not been stated.

Ecological information on ingredients.

1-BROMOPROPANE (CAS: 106-94-5)

Phototransformation

Not available.

Stability (Hydrolysis)

pH4 Half-life: 611 hours @25°C

REACH dossier information

Biodegradation

Water Degradation (19.2%%) 28 days

REACH dossier information

No biodegradation observed under test conditions.

TETRACHLOROETHYLENE (CAS: 127-18-4)

Phototransformation

Not available.

Stability (Hydrolysis)

pH7 Half-life: 8.8 months @25°C

REACH dossier information

No biodegradation observed under test conditions.

12.3. Bioaccumulative potential

Bioaccumulative potential

No data available on bioaccumulation.

Ecological information on ingredients.

1-BROMOPROPANE (CAS: 106-94-5)

Bioaccumulation factor

Not available.

Partition coefficient

Not available.

TETRACHLOROETHYLENE (CAS: 127-18-4)

Bioaccumulation factor

BCF 49

REACH dossier information

Partition coefficient

log Pow 2.53

REACH dossier information

12.4. Mobility in soil

Mobility:

The product is insoluble in water.

Ecological information on ingredients.

1-BROMOPROPANE (CAS: 106-94-5)

Adsorption/Desorption Coefficient

Soil log Koc 1.79

REACH dossier information

Henry's Law Constant

Not available.

Surface tension

Not available.

TETRACHLOROETHYLENE (CAS: 127-18-4)

Adsorption/Desorption Coefficient

Not available.

Henry's Law Constant

Not available.

Surface tension

32.1 mN/m @20°C

REACH dossier information

12.5. Results of PBT and vPvB assessment

This product does not contain any PBT or vPvB substances.

Ecological information on ingredients.

1-BROMOPROPANE (CAS: 106-94-5)

This product does not contain any PBT or vPvB substances.

TETRACHLOROETHYLENE (CAS: 127-18-4)

Not Classified as PBT/vPvB by current EU criteria.

12.6. Other adverse effects

None known.

SECTION 13: DISPOSAL CONSIDERATIONS

General information

When handling waste, consideration should be made to the safety precautions applying to handling of the product. Do not puncture or incinerate even when empty.

13.1. Waste treatment methods

Recover and reclaim or recycle, if practical. Do not allow runoff to sewer, waterway or ground. Dispose of waste and residues in accordance with local authority requirements.

SECTION 14: TRANSPORT INFORMATION

14.1. UN number

UN No. (ADR/RID/ADN)	1950
UN No. (IMDG)	1950
UN No. (ICAO)	1950

14.2. UN proper shipping name

Proper Shipping Name	AEROSOLS (TETRACHLOROETHYLENE)

14.3. Transport hazard class(es)

ADR/RID/ADN Class	2
ADR/RID/ADN Class	Class 2: Gases
ADR Label No.	2.2 & 6.1

IMDG Class	2.2
ICAO Class/Division	2.2
ICAO Subsidiary risk	6.1

Transport Labels

14.4. Packing group

ADR/RID/ADN Packing group	N/A
IMDG Packing group	N/A
ICAO Packing group	N/A

14.5. Environmental hazards

Environmentally Hazardous Substance/Marine Pollutant

14.6. Special precautions for user

EMS	F-D, S-U

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

No information required. Not relevant

SECTION 15: REGULATORY INFORMATION

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

Statutory Instruments

The Chemicals (Hazard Information and Packaging for Supply) Regulations 2009 (S.I 2009 No. 716).

Approved Code Of Practice

Classification and Labelling of Substances and Preparations Dangerous for Supply.

Guidance Notes

Workplace Exposure Limits EH40.

EU Legislation

Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, including amendments. Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 with amendments.

15.2. Chemical Safety Assessment

No chemical safety assessment has been carried out.

SECTION 16: OTHER INFORMATION

Revision Date	June 2012

CYCLO® BRAKE & PARTS CLEAN

Revision	2
Supersedes date	May 2009
Date	June 2012

Risk Phrases In Full

R48/20	Harmful: danger of serious damage to health by prolonged exposure through inhalation.
R11	Highly flammable
R36/37/38	Irritating to eyes, respiratory system and skin.
R40	Limited evidence of a carcinogenic effect.
R60	May impair fertility.
NC	Not classified.
R63	Possible risk of harm to the unborn child.
R51/53	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R67	Vapours may cause drowsiness and dizziness.

Hazard Statements In Full

H319	Causes serious eye irritation.
H315	Causes skin irritation.
H225	Highly flammable liquid and vapour.
H373	May cause damage to organs <<Organs>> through prolonged or repeated exposure.
H336	May cause drowsiness or dizziness.
H335	May cause respiratory irritation.
H360Fd	May damage fertility and suspected of damaging the unborn child.
H360FD	May damage fertility or the unborn child.
H351	Suspected of causing cancer.
H411	Toxic to aquatic life with long lasting effects.