



HYPALON & PVC CURING AGENT SAFETY DATA SHEET

According to Regulation (EC) No 1907/2006, Annex II, as amended by Regulation (EU) No 453/2010

1.1. Product identifier

Product name: Hypalon & PVC Curent Agent

Product number: 202099 - 202121

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

Uses advised against No specific uses advised against are identified. 1.3. Details of the supplier of the safety data sheet

Supplier IBS BOAT SUPPLIES

Fambridge Yacht Station

Ferry Rd, North Fambridge

Essex CM3 6LS

Tel: 01621 744250

E mail: info@ibs-boats.com

Emergency number: 01621 744250 Mon-Fri 9.00-5.00

2.1. Classification of the substance or mixture Classification (EC 1272/2008)

Physical hazards Not Classified

Health hazards Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 Resp. Sens. 1 - H334 Skin Sens. 1 - H317 Carc. 2 - H351 STOT SE 3 - H336 STOT RE 2 - H373

Environmental hazards Not Classified

Human health Product has a defatting effect on skin. Contains non-volatile isocyanate. Heating may generate vapours which irritate the respiratory system. May cause allergy or asthma symptoms or breathing difficulties if inhaled.

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Environmental The product will harden into a solid mass in contact with water and moisture. The resultant material is not biodegradable.

Physicochemical Vapours are heavier than air and may travel along the floor and accumulate in the bottom of containers.

2.2. Label elements

202099 -202121

Pictogram

Signal word Danger

Hazard statements H315 Causes skin irritation.

H317 May cause an allergic skin reaction. H319 Causes serious eye irritation.

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled. H336 May cause drowsiness or dizziness.

H351 Suspected of causing cancer.

H373 May cause damage to organs through prolonged or repeated exposure.

Precautionary statements EUH204 Contains isocyanates. May produce an allergic reaction.

P260 Do not breathe vapour/ spray.

P280 Wear protective gloves/ protective clothing/ eye protection/ face protection. P281 Use personal protective equipment as required.

P284 [In case of inadequate ventilation] wear respiratory protection.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P313 Get medical advice/ attention.

P501 Dispose of contents/ container in accordance with national regulations.

RCH004a Persons already sensitised to diisocyanates may develop allergic reactions when using this product.

RCH004b Persons suffering from asthma, eczema or skin problems should avoid contact, including dermal contact, with this product.

RCH004c This product should not be used under conditions of poor ventilation unless a protective mask with an appropriate gas filter (i.e. type A1 according to standard EN 14387) is used.

Supplemental label information

EUH204 Contains isocyanates. May produce an allergic reaction.

Contains DICHLOROMETHANE, DIPHENYLMETHANE-4,4'-DI-ISOCYANATE, ETHYL ACETATE, TRIS(P-ISOCYANATOPHENYL)THIOPHOSPHATE

3.2. Mixtures

DIPHENYLMETHANE-4,4'-DI-ISOCYANATE 10-30%

CAS number: 101-68-8 EC number: 202-966-0 REACH registration number: 01- 2119457014-47-0000

Classification

Acute Tox. 4 - H332 Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 Resp. Sens. 1 - H334 Skin Sens. 1 - H317
Carc. 2 - H351

STOT SE 3 - H335 STOT RE 2 - H373

ETHYL ACETATE 1-5%

CAS number: 141-78-6 EC number: 205-500-4 REACH registration number: 01- 2119475103-46-0017

Classification Flam. Liq. 2 - H225 Eye Irrit. 2 - H319 STOT SE 3 - H336

The full text for all hazard statements is displayed in Section 16.

4.1. Description of first aid measures

General information Remove affected person from source of contamination. Inhalation
Move affected person to fresh air at once.

Ingestion DO NOT induce vomiting. Get medical attention immediately.

Skin contact Remove contaminated clothing immediately and wash skin with soap and water.

Eye contact Rinse immediately with plenty of water. Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes. Get medical attention if irritation persists after washing. Show this Safety Data Sheet to the medical personnel.

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

General information The severity of the symptoms described will vary dependent on the concentration and the length of exposure.

Inhalation Vapours may cause drowsiness and dizziness. Irritation of nose, throat and airway.

Ingestion May cause chemical burns in mouth and throat.

Skin contact Prolonged skin contact may cause redness and irritation.

Eye contact Severe irritation, burning and tearing.

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

Notes for the doctor No specific recommendations. If in doubt, get medical attention promptly.

5.1. Extinguishing media

Suitable extinguishing media Extinguish with foam, carbon dioxide, dry powder or water fog.

Unsuitable extinguishing media

Do not use water jet as an extinguisher, as this will spread the fire.

5.2. Special hazards arising from the substance or mixture

Specific hazards The product is non-combustible. Toxic gases or vapours. No unusual fire or explosion hazards noted.

Hazardous combustion products

5.3. Advice for firefighters

Protective actions during firefighting

Special protective equipment for firefighters

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

Oxides of carbon. Oxides of nitrogen.

Containers close to fire should be removed or cooled with water. Do not allow water to contact any leaked material.

Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

6.1. Personal precautions, protective equipment and emergency procedures

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

6.2. Environmental precautions

Environmental precautions Do not discharge into drains or watercourses or onto the ground.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up Eliminate all sources of ignition. No smoking, sparks, flames or other sources of ignition near spillage. Provide adequate ventilation. Absorb spillage with non-combustible, absorbent material.

6.4. Reference to other sections

Reference to other sections Wear protective clothing as described in Section 8 of this safety data sheet.

7.1. Precautions for safe handling

Usage precautions Vapours may accumulate on the floor and in low-lying areas. Avoid inhalation of vapours and spray/mists.

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions Keep away from heat, sparks and open flame. Store in closed original container at temperatures between 5°C and 25°C.

Storage class Chemical storage. 7.3. Specific end use(s)

Specific end use(s) The identified uses for this product are detailed in Section 1.2.

8.1. Control parameters Occupational exposure limits DICHLOROMETHANE

Long-term exposure limit (8-hour TWA): WEL 100 ppm 350 mg/m³ Short-term exposure limit (15-minute): WEL 300 ppm 1060 mg/m³ Sk

DIPHENYLMETHANE-4,4'-DI-ISOCYANATE

Long-term exposure limit (8-hour TWA): WEL 0.02 mg/m³(Sen) Short-term exposure limit (15-minute): WEL 0.07 mg/m³(Sen)

ETHYL ACETATE

Long-term exposure limit (8-hour TWA): WEL 200 ppm Short-term exposure limit (15-minute): WEL 400 ppm WEL = Workplace Exposure Limit

Sk = Can be absorbed through the skin.

Ingredient comments WEL = Workplace Exposure Limits

DICHLOROMETHANE (CAS: 75-09-2)

Ingredient comments WEL = Workplace Exposure Limits

DNEL Consumer - Dermal; Short term systemic effects: 353 mg/m³ Workers - Dermal; Short term systemic effects: 706 mg/m³

PNEC - Fresh water; 0.54 mg/l

- Sediment (Freshwater); 4.47 mg/kg
- Intermittent release; 0.27 mg/l
- Sediment (Marinewater); 1.61 mg/kg
- Marine water; 0.194 mg/l
 - STP; 26 mg/l
 - Soil; 0.583 mg/kg

DIPHENYLMETHANE-4,4'-DI-ISOCYANATE (CAS: 101-68-8)

DNEL Workers - Inhalation; Short term systemic effects: 0.1 mg/m³ Workers - Dermal; Short term local effects: 28.7 mg/cm² Workers - Inhalation; Short term local effects: 0.1 mg/m³ Workers - Inhalation; Long term systemic effects: 0.05 mg/m³ Workers - Inhalation; Long term local effects: 0.05 mg/m³

Consumer - Dermal; Short term systemic effects: 25 mg/kg bw/day Workers - Dermal; Short term systemic effects: 50 mg/kg bw/day Consumer - Oral; Short term systemic effects: 20 mg/kg bw/day Consumer - Dermal; Short term local effects: 17.2 mg/cm² Consumer - Inhalation; Short term local effects: 0.05 mg/m³ Consumer - Inhalation; Long term systemic effects: 0.025 mg/m³ Consumer - Inhalation; Long term local effects: 0.025 mg/m³ Consumer - Inhalation; Short term systemic effects: 0.05 mg/m³

PNEC - Marine water; 0.1 mg/l

- STP; 1 mg/l
- Fresh water; 1 mg/l
- Soil; 1 mg/kg

ETHYL ACETATE (CAS: 141-78-6)

DNEL Workers - Inhalation; Short term systemic effects: 1468 mg/m³ Workers - Inhalation; Short term local effects: 1468 mg/m³ Consumer - Inhalation; Short term systemic effects: 734 mg/m³ Consumer - Inhalation; Short term local effects: 374 mg/m³ Workers - Inhalation; Long term local effects: 734 mg/m³ Workers - Dermal; Long term systemic effects: 63 mg/kg bw/day Workers - Inhalation; Long term systemic effects: 734 mg/m³

Consumer - Dermal; Long term systemic effects: 37 mg/kg bw/day Consumer - Inhalation; Long term systemic effects: 367 mg/m³ Consumer - Oral; Long term systemic effects: 4.5 mg/kg bw/day Consumer - Inhalation; Long term local effects: 367 mg/m³

PNEC - Fresh water; 0.26 mg/l

- Marine water; 0.026 mg/l

- Intermittent release; 1.65 mg/l

- Sediment (Freshwater); 1.25 mg/kg

- Sediment (Marinewater); 0.125 mg/kg

- Soil; 0.24 mg/kg

- STP; 650 mg/l

8.2. Exposure controls Protective equipment

Appropriate engineering controls

Provide adequate ventilation. Avoid inhalation of vapours. Observe any occupational exposure limits for the product or ingredients.

Eye/face protection The following protection should be worn: Chemical splash goggles or face shield.

Hand protection It is recommended that gloves are made of the following material: Nitrile rubber. It should be noted that liquid may penetrate the gloves. Frequent changes are recommended. For exposure up to 8 hours, wear gloves made of the following material: Viton rubber (fluoro rubber).

Other skin and body protection

Wear suitable protective clothing as protection against splashing or contamination. Wear apron or protective clothing in case of contact.

Hygiene measures Use engineering controls to reduce air contamination to permissible exposure level. Wash hands after handling.

Respiratory protection If ventilation is inadequate, suitable respiratory protection must be worn. If ventilation is inadequate, suitable respiratory protection must be worn. Wear a respirator fitted with the following cartridge: ABEK2-P3

Environmental exposure controls

Keep container tightly sealed when not in use.

9.1. Information on basic physical and chemical properties

Appearance Coloured liquid.

Colour Amber.

Odour Characteristic.

Odour threshold Not available.

pH Not available.

Melting point Not available. Initial boiling point and range 39-40°C @ Evaporation rate Not available.

Evaporation factor Not available. Flammability (solid, gas) Not available. Other flammability Not available.

Vapour pressure Not available.

Vapour density Not available.

Relative density 1.26

Bulk density Not available.

Solubility(ies) Insoluble in water.

Partition coefficient Not available. Decomposition Temperature Not available.

Viscosity Kinematic viscosity > 20.5 mm²/s.

Explosive properties Not available.



Explosive under the influence of a flame

Not considered to be explosive.

Oxidising properties Not available.

Comments Information given is applicable to the product as supplied. 9.2. Other information

Other information No information required.

Refractive index Not available.

Particle size Not available.

Molecular weight Not available.

Volatility Not available.

Saturation concentration Not available. Critical temperature Not available.

10.1. Reactivity

Reactivity There are no known reactivity hazards associated with this product. 10.2. Chemical stability

Stability Stable at normal ambient temperatures and when used as recommended. 10.3. Possibility of hazardous reactions

Possibility of hazardous reactions

10.4. Conditions to avoid

Not applicable. Not relevant.

Conditions to avoid Avoid freezing. 10.5. Incompatible materials

Materials to avoid Flammable/combustible materials. Acids - oxidising. Strong alkalis.

10.6. Hazardous decomposition products

Hazardous decomposition products

Does not decompose when used and stored as recommended.

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11.1. Information on toxicological effects Acute toxicity - oral

ATE oral (mg/kg) 2,531.65

Acute toxicity - inhalation

ATE inhalation (vapours mg/l) 61.11

Inhalation Harmful by inhalation.

Ingestion Harmful if swallowed.

Skin contact May be harmful in contact with skin.

Eye contact Irritating. Toxicological information on ingredients.

DICHLOROMETHANE

Toxicological effects The toxicity of this substance has been assessed during REACH registration.

Acute toxicity - oral

Acute toxicity oral (LD₅₀ mg/kg)

2,000.0

Species Rat

ATE oral (mg/kg) 2,000.0 Acute toxicity - dermal

Acute toxicity dermal (LD₅₀ mg/kg)

2,000.0

Species Rat

Acute toxicity - inhalation

Acute toxicity inhalation (LC₅₀ vapours mg/l)

86.0

Species Rat

ATE inhalation (vapours mg/l)

Skin corrosion/irritation

86.0

Skin corrosion/irritation Irritating to skin., REACH dossier information. Serious eye damage/irritation

Serious eye damage/irritation

Respiratory sensitisation

Causes eye irritation.

Respiratory sensitisation Not sensitising. Germ cell mutagenicity

Genotoxicity - in vitro Positive. Genotoxicity - in vivo Negative. Carcinogenicity

IARC carcinogenicity IARC Group 2B Possibly carcinogenic to humans.

Reproductive toxicity

Reproductive toxicity - fertility

Reproductive toxicity - development

Acute toxicity - oral

Acute toxicity oral (LD₅₀ mg/kg)

No evidence of reproductive toxicity in animal studies. No evidence of reproductive toxicity in animal studies.

DIPHENYLMETHANE-4,4'-DI-ISOCYANATE

10,000.0

Species Rat

ATE oral (mg/kg) 10,000.0 Acute toxicity - dermal

Acute toxicity dermal (LD₅₀ mg/kg)

9,400.0

Species Rabbit

ATE dermal (mg/kg) 9,400.0 Acute toxicity - inhalation

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Acute toxicity inhalation (LC₅₀ vapours mg/l)

0.31

Species Rat

ATE inhalation (vapours mg/l)

Carcinogenicity

11.0

IARC carcinogenicity IARC Group 3 Not classifiable as to its carcinogenicity to humans.

Acute toxicity - oral

Acute toxicity oral (LD₅₀ mg/kg)

4,100.0

ETHYL ACETATE

Species Mouse

ATE oral (mg/kg) 4,100.0 Acute toxicity - dermal

Acute toxicity dermal (LD₅₀ mg/kg)

20,000.0

Species Rabbit

ATE dermal (mg/kg) 20,000.0 Acute toxicity - inhalation

Acute toxicity inhalation (LC₅₀ vapours mg/l)

30.0

Species Rat

ATE inhalation (vapours mg/l)

30.0

12.1. Toxicity

Ecological information on ingredients.

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DICHLOROMETHANE

Acute toxicity - fish LC₅₀, 96 hours: 193 mg/l, Pimephales promelas (Fat-head Minnow) LC₅₀, 48 hours: 97 mg/l, Fundulus heteroclitus

Acute toxicity - aquatic invertebrates

Acute toxicity - aquatic plants

Acute toxicity - microorganisms

EC₅₀, 48 hours: 27 mg/l, Daphnia magna LC₅₀, 48 hours: 109 mg/l, Palaemonetes pugio

NOEC, 192 hours: 550 mg/l, Microcystis aeruginosa - Algae, blue, cyanobacteria EC₅₀, 0.67 hours: 2590 mg/l, Bacteria

Chronic toxicity - fish early life stage

NOEC, 28 days: 83 mg/l, Pimephales promelas (Fat-head Minnow)

DIPHENYLMETHANE-4,4'-DI-ISOCYANATE

Acute toxicity - fish LC₅₀, 96 hours: >1000 mg/l, Marinewater fish

Acute toxicity - aquatic invertebrates

EC₅₀, 24 hours: >1000 mg/l, Daphnia magna

Chronic toxicity - aquatic invertebrates

NOEC, 21 days: >10 mg/l, Daphnia magna

ETHYL ACETATE

Acute toxicity - fish EC₅₀, 48 hours: 610 mg/l, Marinewater fish

LC₅₀, 96 hours: 230 mg/l, Pimephales promelas (Fat-head Minnow)

Acute toxicity - aquatic invertebrates

Acute toxicity - aquatic plants

12.2. Persistence and degradability 12.3. Bioaccumulative potential

EC₅₀, 48 hours: 11.5 mg/l, Daphnia magna EC₅₀, 48 hours: 5600 mg/l, Freshwater algae

Partition coefficient Not available. Ecological information on ingredients.

DICHLOROMETHANE

Bioaccumulative potential The product is not bioaccumulating. Partition coefficient Not available.

DIPHENYLMETHANE-4,4'-DI-ISOCYANATE

Partition coefficient log Pow: 4.51

ETHYL ACETATE

Bioaccumulative potential BCF: 30, Partition coefficient Not available.

12.4. Mobility in soil

Ecological information on ingredients.

DICHLOROMETHANE

Mobility The product contains volatile organic compounds (VOCs) which will evaporate easily from all surfaces.

ETHYL ACETATE

Mobility The product contains volatile organic compounds (VOCs) which will evaporate easily from all surfaces.

12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment

This product does not contain any substances classified as PBT or vPvB.

Ecological information on ingredients.

DICHLOROMETHANE

Results of PBT and vPvB assessment

This product does not contain any substances classified as PBT or vPvB. ETHYL ACETATE

Results of PBT and vPvB assessment

12.6. Other adverse effects



This product does not contain any substances classified as PBT or vPvB.

Other adverse effects Not applicable. Ecological information on ingredients.

DICHLOROMETHANE

Other adverse effects Not applicable.

ETHYL ACETATE

Other adverse effects Not known.

13.1. Waste treatment methods

General information Waste should be treated as controlled waste. Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

Disposal methods Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority. Avoid the spillage or runoff entering drains, sewers or watercourses.

14.1. UN number

UN No. (ADR/RID) 2810

UN No. (IMDG) 2810

UN No. (ICAO) 2810

UN No. (ADN) 2810

14.2. UN proper shipping name

Proper shipping name (ADR/RID)

TOXIC LIQUID, ORGANIC, N.O.S.

Proper shipping name (IMDG) TOXIC LIQUID, ORGANIC, N.O.S. Proper shipping name (ICAO) TOXIC LIQUID, ORGANIC, N.O.S. Proper shipping name (ADN) TOXIC LIQUID, ORGANIC, N.O.S. 14.3.

Transport hazard class(es)

ADR/RID class 6.1

ADR/RID classification code T1 ADR/RID label 6.1

IMDG class 6.1

ICAO class/division 6.1

ADN class 6.1

Transport labels

14.4. Packing group

ADR/RID packing group III

IMDG packing group III

ADN packing group III

ICAO packing group III

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant No.

14.6. Special precautions for user

EmS F-A, S-A

ADR transport category 2

Hazard Identification Number 60 (ADR/RID)

Tunnel restriction code (E)

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

National regulations The Control of Substances Hazardous to Health Regulations 2002 (SI 2002 No. 2677) (as amended).

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) (as amended).

Guidance Approved Classification and Labelling Guide (Sixth edition) L131. 15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

Issued by Compliance



Everything for Inflatables

Revision date 03/05/2018

Revision 21

Supersedes date 15/09/2015

SDS status Approved.

Hazard statements in full H225 Highly flammable liquid and vapour.

H302 Harmful if swallowed. H315 Causes skin irritation.

H317 May cause an allergic skin reaction. H319 Causes serious eye irritation.

H332 Harmful if inhaled.

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled. H335 May cause respiratory irritation.

H336 May cause drowsiness or dizziness. H351 Suspected of causing cancer.

H373 May cause damage to organs through prolonged or repeated exposure.

Store Between 5°C - 25°C

Contains SVHC NO

This 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. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated.

However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.

METHYLENE CHLORIDE (stabilizer: Amylene)

Version 1 Revision Date 20.11.2012 Print Date 03.01.2014 GB / EN

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

1.1 Product identifier

Trade name : METHYLENE CHLORIDE (stabilizer: Amylene)

Substance name : dichloromethane (Stabilizer: Amylene) REACH Registration Number :
01-2119480404-41-0000

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

Use of the Substance/Mixture

: Specific use(s): Industrial and professional use

Consumer use

Refer to attached exposure scenario Annex.

Recommended restrictions on use

: Paint strippers

See Annex XVII to Regulation (EC) no 1907/2006 for Conditions of restriction

1.3 Details of the supplier of the safety data sheet

Company : Akzo Nobel Industrial Chemicals bv Stationsstraat 77

NL 3811 MH Amersfoort The Netherlands

Telephone : +31334676767

Telefax : +31334676110

E-mail address : industrialchemicals.sds@akzonobel.com

1.4 Emergency telephone number

Emergency telephone number

: AkzoNobel Chemicals-Deventer-NL: +31 570 679211

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture Classification (REGULATION (EC) No 1272/2008)

Skin irritation, 2, H315

Eye irritation, 2, H319 Carcinogenicity, 2, H351

Specific target organ toxicity - single exposure, 3, Respiratory system, H335

, Central nervous system, H336

Specific target organ toxicity - repeated exposure, 2, H373 For the full text of the H-Statements mentioned in this Section, see Section 16.

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Everything for Inflatables

Classification (67/548/EEC, 1999/45/EC)

Carcinogenic Category 3, Xn, R40

For the full text of the R-phrases mentioned in this Section, see Section 16.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Symbol(s) :

Signal word : Warning

Hazard statements : H315 Causes skin irritation.

H319 Causes serious eye irritation.

H335 May cause respiratory irritation.

H336 May cause drowsiness or dizziness.

H351 Suspected of causing cancer.

H373 May cause damage to organs through
prolonged or repeated exposure.

Precautionary statements : Prevention:

P260 Do not breathe dust/ fume/ gas/ mist/
vapours/ spray.

P264 Wash skin thoroughly after handling.

P280 Wear protective gloves/ protective
clothing/ eye protection/ face protection.

Response:

P308 + P313 IF exposed or concerned: Get medical

Storage: advice/ attention.

P403 + P233 Store in a well-ventilated place. Keep
container tightly closed.

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Disposal:

P501 Dispose of contents/ container to an approved waste disposal plant.

For the full list of P-statements please see section 16.

Hazardous components which must be listed on the label:

Dichloromethane 75-09-2

2.3 Other hazards

No further data available.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Formula : CH₂Cl₂

Hazardous substance

Chemical Name PBT

vPvB OEL CAS-No. EC-No. REACH No. Classification (REGULATION (EC) No 1272/2008)

Classification (67/548/EEC)

Concentration [%]

Dichloromethane 75-09-2 Skin Irrit. 2; H315 Xi; R36/37/38 99.5

200-838-9 Eye Irrit. 2; H319 Carc.Cat.3;

01- Carc. 2; H351 R40

2119480404-

41 STOT SE 3; H335, H336 STOT RE 2; H373 R67

For the full text of the H-Statements mentioned in this Section, see Section 16. For the full text of the R-phrases mentioned in this Section, see Section 16.

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures



Everything for Inflatables

General advice : Move out of dangerous area.

Consult a physician.

Show this safety data sheet to the doctor in attendance.

If inhaled : If breathed in, move person into fresh air.

Consult a physician after significant exposure. Give oxygen or artificial respiration if needed.

In case of skin contact : Take off contaminated clothing and shoes immediately.

Wash off with plenty of water.

If skin irritation persists, call a physician.

In case of eye contact : Remove contact lenses.

Rinse with plenty of water. Protect unharmed eye.

Keep eye wide open while rinsing. Obtain medical attention.

If swallowed : Clean mouth with water and drink afterwards plenty of water.

Never give anything by mouth to an unconscious person. Induce vomiting, but only if victim is fully conscious.

Obtain medical attention.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms : Nausea

Vomiting Fatigue

Dizziness Headache Shortness of breath

Risks : Later control for pneumonia and lung oedema.

May cause cardiac arrhythmia. Respiratory disorders

4.3 Indication of any immediate medical attention and special treatment needed

Treatment : Treat symptomatically.

Do not give drugs from adrenaline-ephedrine group.

SECTION 5: FIREFIGHTING MEASURES

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5.1 Extinguishing media

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

5.2 Special hazards arising from the substance or mixture

Specific hazards during firefighting / Specific hazards arising from the chemical

: Do not allow run-off from fire fighting to enter drains or water courses.

In case of fire hazardous decomposition products may be produced such as:

Carbon monoxide Hydrogen chloride Phosgene

5.3 Advice for firefighters

Special protective equipment for firefighters

: In the event of fire, wear self-contained breathing apparatus.

Further information : Prevent fire extinguishing water from contaminating surface water or the ground water system.

Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : Wear respiratory protection.

Ensure adequate ventilation.

6.2 Environmental precautions

Environmental precautions : Do not flush into surface water or sanitary sewer system.

If the product contaminates rivers and lakes or drains inform respective authorities.

6.3 Methods and materials for containment and cleaning up

Methods for cleaning up / Methods for containment

: Soak up with inert absorbent material.

Unsuitable material for picking up: Earth

Sand

Keep in suitable, closed containers for disposal.

6.4 Reference to other sections

Additional advice : For personal protection see section 8.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

Advice on safe handling : For personal protection see section 8.

Avoid formation of aerosol.

Do not breathe vapours or spray mist.

Smoking, eating and drinking should be prohibited in the application area.

Dispose of rinse water in accordance with local and national regulations.

Avoid contact with skin, eyes and clothing.

Advice on protection against fire and explosion

: Normal measures for preventive fire protection.

Vapours are heavier than air and may spread along floors. Do not burn, or use a cutting torch on, the empty drum.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers

: Prevent unauthorized access. Keep in a well-ventilated place.

Other data : Suitable container and packaging materials for safe storage Stainless steel

Carbon steel

7.3 Specific end use(s)

Specific use(s) : Refer to attached exposure scenario Annex.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Components with workplace control parameters

| Components | CAS-No. | Value | Control parameters | Update Basis | Form of exposure |
|-----------------|---------|-----------------------|--------------------|--------------|------------------|
| Dichloromethane | | 75-09-2 | TWA | 100 ppm | |
| | | 350 mg/m ³ | 2007-08-01 | GB EH40 | |

Further information : Sk: Can be absorbed through skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity.

STEL 300 ppm

1,060 mg/m³ 2007-08-01 GB EH40

Further information : Sk: Can be absorbed through skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity.

STEL: Short term exposure limit

TWA: Time Weighted Average (TWA)

Component: Dichloromethane

DNEL/DMEL : Workers Inhalation

Acute systemic effects 706 mg/m³

Workers Inhalation

Long-term systemic effects 353 mg/m³

Workers Skin contact

Long-term systemic effects 4750 mg/kg bw/day

Consumers Inhalation

Acute systemic effects 353 mg/m³

Consumers Inhalation

Long-term systemic effects

88.3 mg/m³

Consumers Skin contact

Long-term systemic effects 2395 mg/kg bw/day

Consumers Ingestion

Long-term systemic effects

0.06 mg/kg bw/day

Component: Dichloromethane

PNEC : Fresh water

0.54 mg/l

Marine water

0.194 mg/l

Intermittent water

0.27 mg/l

Sewage treatment plant

26 mg/l

Fresh water sediment

4.47 mg/kg

Marine sediment

1.61 mg/kg

Soil

0.583 mg/kg

8.2 Exposure controls

Engineering Controls

Effective exhaust ventilation system

Ensure that eyewash stations and safety showers are close to the workstation location.

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Personal protective equipment

Respiratory protection : In the case of vapour formation use a respirator with an approved filter.

Hand protection : Fluorinated rubber

Break through time: > 120 min Glove thickness: > 0.4 mm

Fluorinated rubber

Break through time: > 480 min Glove thickness: > 0.8 mm

PVA

Break through time: > 480 min Glove thickness: > 0.8 mm

butyl-rubber

Break through time: > 10 min Glove thickness: > 0.4 mm

Protective gloves complying with EN 374.

Eye protection : Safety glasses with side-shields conforming to EN166 or

Face-shield

Skin and body protection : Wear suitable protective clothing.

Boots

Hygiene measures : Handle in accordance with good industrial hygiene and safety practice.

When using do not eat or drink. When using do not smoke.

Wash hands before breaks and at the end of workday.

Environmental exposure controls

General advice : Do not flush into surface water or sanitary sewer system.

If the product contaminates rivers and lakes or drains inform respective authorities.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties Appearance

Form : Clear liquid

Colour : colourless

Odour : sweet

Odour Threshold : no data available

Safety data

pH : not applicable

Melting point : ca. -97 °C

at 1,013 hPa

Boiling point : 40 °C

at 1,013 hPa

Flash point : does not flash

Evaporation rate : no data available Flammability (solid, gas) : The product is not flammable. Lower explosion limit : 13 %(V)

Upper explosion limit : 22 %(V)

Vapour pressure : 476 hPa at 20 °C 584 hPa at 25 °C

709 hPa at 30 °C

Relative vapor density : 2.93 at 25 °C

Relative density: 1.359 at 20 °C

Water solubility: ca. 20 g/l at 20 °C

Solubility in other solvents : miscible with most organic solvents

Partition coefficient: n- octanol/water

: log Pow: 1.25 at 20 °C

Auto-ignition temperature : 605 °C

at 1,013 hPa



Decomposition temperature : > 120 °C

Viscosity, dynamic : 0.42 mPa.s at 25 °C

Viscosity, kinematic : no data available

Explosive properties : Not explosive

Oxidizing properties : Not classified as oxidising.

9.2 Other information

Peroxide content : not applicable

This safety datasheet only contains information relating to safety and does not replace any product information or product specification.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity

Stable under normal conditions.

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

No dangerous reaction known under conditions of normal use.

10.4 Conditions to avoid

Conditions to avoid : Avoid elevated temperatures

10.5 Incompatible materials

Materials to avoid : Zinc Magnesium

Finely divided aluminium Strong bases

Alkali metals

Strong oxidizing agents Alkaline earth metals

10.6 Hazardous decomposition products

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Hazardous decomposition products

: Hydrogen chloride Carbon monoxide Phosgene

Thermal decomposition : > 120 °C

SECTION 11: TOXICOLOGICAL INFORMATION

Product information:

Hazard Summary

Inhalation : Inhalation of vapours is irritating to the respiratory system, may cause throat pain and cough.

Thermal decomposition can lead to release of irritating gases and vapours.

Inhalation may cause central nervous system effects.

Skin : Causes skin irritation.

Eyes : Causes serious eye irritation.

Ingestion : May be harmful if swallowed.

11.1 Information on toxicological effects Toxicology data for the components:

Toxicology Assessment Dichloromethane

CMR effects : Carcinogenicity: Limited evidence of carcinogenicity in animal studies

Test result Dichloromethane

Acute oral toxicity : LD50: > 2,000 mg/kg Species: rat

Method: OECD Test Guideline 401

Acute inhalation toxicity : LC50: 86 mg/l

Exposure time: 4 h Species: rat

Acute dermal toxicity : LD50: > 2,000 mg/kg

Species: rat

Method: OECD Test Guideline 402

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Skin irritation : Species: rabbit Irritating to skin.

Method: OECD Test Guideline 404

Eye irritation : Species: rabbit Irritating to eyes.

Sensitisation : Species: mouse Not sensitizing.

Method: OECD Guide-line 429 - Skin Sensitization: Local Lymph Node Assay

Repeated dose toxicity : Species: rat

Application Route: Oral Exposure time: 104 weeks () NOEL: 6

Method: OECD Test Guideline 453

Species: rat

Application Route: Inhalation Exposure time: 104 weeks () NOEL: 200

Method: OECD Test Guideline 453

Germ cell mutagenicity

Genotoxicity in vitro : In vitro cytogenetic test in CHO cells:
positive

Method: OECD guide-line 476 - In vitro Mammalian Cell Gene Mutation Test

In vitro gene mutation study in mammalian cells negative

Method: Other guidelines

Ames test positive

Method: Mutagenicity (Salmonella typhimurium - reverse mutation assay)

Genotoxicity in vivo : Chromosome aberration test in vivo

Species: mouse

Method: Mutagenicity (micronucleus test) negative

Reproductive toxicity/Fertility : Method: OECD Test Guideline 416

Species: rat



Application Route: Inhalation

Reproductive toxicity/Development/Teratogenicity

: Method: OECD Test Guideline 414 Species: mouse

Application Route: Inhalation

Method: OECD Test Guideline 414 Species: rat

Application Route: Inhalation

Target Organ Systemic Toxicant - Single exposure

: May cause respiratory irritation.

May cause drowsiness or dizziness.

Target Organ Systemic Toxicant - Repeated exposure

: Species: rat Application Route: Oral

Exposure time: 104 weeks () NOEL: 6

Method: OECD Test Guideline 453 Species: rat

Application Route: Inhalation Exposure time: 104 weeks () NOEL: 200

Method: OECD Test Guideline 453 Exposure routes: Inhalation

Target Organs: Blood, Central nervous system

May cause damage to organs through prolonged or repeated exposure.

Exposure routes: Ingestion Target Organs: Blood, Liver

May cause damage to organs through prolonged or repeated exposure.

SECTION 12: ECOLOGICAL INFORMATION

Product information: Ecotoxicology Assessment

Additional ecological information

12.1 Toxicity

Components: Ecotoxicology Assessment Dichloromethane

: None known.

Results of PBT assessment : Not classified as PBT or vPvB

Test result Dichloromethane

Toxicity to fish : LC50: 193 mg/l Exposure time: 96 h

Species: Pimephales promelas (fathead minnow) flow-through test Method: Other guidelines

LC50: 97 mg/l Exposure time: 48 h

Species: Fundulus heteroclitus

Marine water Method: Other guidelines

Toxicity to daphnia and other aquatic invertebrates

: LC50: 27 mg/l Exposure time: 48 h

Species: Daphnia magna (Water flea) Fresh water Method: EPA-660/3-75-009

LC50: 109 mg/l Exposure time: 48 h

Species: Palaemonetes pugio

Marine water Method: Other guidelines

Toxicity to algae : NOEC: 550 mg/l Exposure time: 192 h

Species: Microcystis aeruginosa - Algae, blue, cyanobacteria Cell multiplication inhibition test

Toxicity to bacteria : EC50: 2,590 mg/l Exposure time: 0.67 h Respiration inhibition

Method: OECD Guide-line 209

Toxicity to fish (Chronic toxicity)

: NOEC: 83 mg/l Exposure time: 28 d

Species: Pimephales promelas (fathead minnow) flow-through test

Method: Other guidelines

12.2 Persistence and degradability

Components:

Dichloromethane

Biodegradability : aerobic

Readily biodegradable. 66 %

Method: OECD Test Guideline 301D

12.3 Bioaccumulative potential

Components:

Dichloromethane

Bioaccumulation : No bioaccumulation is to be expected (log Pow <= 4).

12.4 Mobility in soil Components:

Dichloromethane

Mobility : Medium: Soil

no data available

12.5 Results of PBT and vPvB assessment Components:

Dichloromethane

PBT and vPvB assessment : Not classified as PBT or vPvB

12.6 Other adverse effects

Components: Dichloromethane Biochemical Oxygen Demand (BOD)

: no data available

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product: Dispose of as hazardous waste in compliance with local and national regulations.

Where possible recycling is preferred to disposal or incineration.

Contaminated packaging : Dispose of contents/container in accordance with local regulation.

SECTION 14: TRANSPORT INFORMATION

14.1 UN number



Everything for Inflatables

ADR : 1593

RID : 1593

IMDG : 1593

IATA : 1593

14.2 Proper shipping name

ADR : DICHLOROMETHANE

RID : DICHLOROMETHANE

IMDG : DICHLOROMETHANE

IATA : Dichloromethane

14.3 Transport hazard class

ADR : 6.1

RID : 6.1

IMDG : 6.1

IATA : 6.1

14.4 Packing group ADR

Packaging group : III

Classification Code : T1

Hazard identification No : 60

Labels : 6.1

Tunnel restriction code : (E)

RID

Packaging group : III

Classification Code : T1

Hazard identification No : 60

Labels : 6.1

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Everything for Inflatables

IMDG

Packaging group : III

Labels : 6.1

EmS Number : F-A, S-A

IATA

Packing instruction (cargo aircraft)

: 663

Packaging group : III

Labels : 6.1

14.5 Environmental hazards ADR

Environmentally hazardous : no

RID

Environmentally hazardous : no

IMDG

Marine Pollutant : no

IATA

Environmentally hazardous : no

14.6 Special precautions for user

Handle with care.

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

no data available

SECTION 15: REGULATORY INFORMATION

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

Major Accident Hazard Legislation

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: 96/82/EC Update: 2003 Directive 96/82/EC does not apply

Water contaminating class (Germany)

: WGK 2 water endangering

Notification status

CH INV : YES. The formulation contains substances listed on the Swiss Inventory US.TSCA :
YES. All chemical substances in this product are either listed on the
TSCA Inventory or in compliance with a TSCA Inventory exemption.

DSL : YES. All components of this product are on the Canadian DSL. AICS : YES. On the
inventory, or in compliance with the inventory NZIoC : YES. On the inventory, or in compliance
with the inventory ENCS : YES. On the inventory, or in compliance with the inventory ISHL
: YES. On the inventory, or in compliance with the inventory KECl : YES. On the
inventory, or in compliance with the inventory PICCS : YES. On the inventory, or in compliance
with the inventory IECSC : YES. On the inventory, or in compliance with the inventory

For explanation of abbreviation see section 16.

15.2 Chemical Safety Assessment

Dichloromethane : A Chemical Safety Assessment has been carried out for this
substance.

SECTION 16: OTHER INFORMATION

Full text of H-Statements referred to under sections 2 and 3.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H335 May cause respiratory irritation.

H336 May cause drowsiness or dizziness.

H351 Suspected of causing cancer.

H373 May cause damage to organs through prolonged or repeated exposure.

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Full text of R-phrases referred to under sections 2 and 3 R36/37/38 Irritating to eyes,
respiratory system and skin. R40 Limited evidence of a carcinogenic effect.

R67 Vapours may cause drowsiness and dizziness.

Full list of P-statements.

Prevention:

P201 Obtain special instructions before use.

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

P260 Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.

P264 Wash skin thoroughly after handling.

P271 Use only outdoors or in a well-ventilated area.

P280 Wear protective gloves/ eye protection/ face protection.

Response:

P302 + P352 IF ON SKIN: Wash with plenty of soap and water.

P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P308 + P313 IF exposed or concerned: Get medical advice/ attention. P362 Take off contaminated clothing and wash before reuse. Storage:

P403 + P233 Store in a well-ventilated place. Keep container tightly closed. P405 Store locked up.

Disposal:

P501 Dispose of contents/ container to an approved waste disposal plant.

Explanations for possible abbreviations mentioned in section 2

PBT : PBT: Persistent, bioaccumulative and toxic. vPvB: vPvB: Very persistent and very bioaccumulative. OEL : OEL: Occupational exposure limit.