



SAFETY DATA SHEET

CYCLOHEXANE/ ISOPROPANOL BLEND

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

1.1. Product identifier

Product name CYCLOHEXANE/ ISOPROPANOL BLEND

Product number 12070

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

Identified uses Industrial Solvent

1.3. Details of the supplier of the safety data sheet

Supplier Univar
 Aquarius House
 6 Mid Point Business Park
 Bradford
 BD3 7AY
 +44 1274 267300
 sds@univar.com
 +44 1274 267306

1.4. Emergency telephone number

Emergency Contact Number +44 1274 267346
 (Office Hours)

Emergency Contact Number +441865 407333
 (Outside Office Hours)

Sds No. 12070

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification

Physical hazards Flam. Liq. 2 - H225

Health hazards Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 STOT SE 3 - H336 Asp. Tox. 1 - H304

Environmental hazards Aquatic Acute 1 - H400 Aquatic Chronic 1 - H410

Classification (67/548/EEC or 1999/45/EC) F; R11. Xn; R65. Xi; R36/38. N; R50/53. R67

2.2. Label elements

Pictogram



Signal word

Danger

CYCLOHEXANE/ ISOPROPANOL BLEND

Hazard statements

H225 Highly flammable liquid and vapour.
 H304 May be fatal if swallowed and enters airways.
 H315 Causes skin irritation.
 H319 Causes serious eye irritation.
 H336 May cause drowsiness or dizziness.
 H410 Very toxic to aquatic life with long lasting effects.

Precautionary statements

P243 Take precautionary measures against static discharge.
 P261 Avoid breathing vapour/spray.
 P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/doctor.
 P304+P340 IF INHALED: Remove person to fresh air and keep 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.
 P501 Dispose of contents/container in accordance with national regulations.

Contains

CYCLOHEXANE, PROPAN-2-OL

2.3. Other hazards

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

SECTION 3: Composition/information on ingredients

3.2. Mixtures

CYCLOHEXANE		60-100%
CAS number: 110-82-7	EC number: 203-806-2	REACH registration number: 01-2119463273-41
M factor (Acute) = 1	M factor (Chronic) = 1	

Classification

Flam. Liq. 2 - H225
 Skin Irrit. 2 - H315
 STOT SE 3 - H336
 Asp. Tox. 1 - H304
 Aquatic Acute 1 - H400
 Aquatic Chronic 1 - H410

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

F; R11. Xn; R65. Xi; R38. N; R50/53. R67

PROPAN-2-OL		30-60%
CAS number: 67-63-0	EC number: 200-661-7	REACH registration number: 01-2119457558-25

Classification

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

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

F; R11. Xi; R36. R67

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

Composition comments

The data shown are in accordance with the latest EC Directives.

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation

Move affected person to fresh air at once. Get medical attention.

CYCLOHEXANE/ ISOPROPANOL BLEND

Ingestion	Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Get medical attention immediately. Do not induce vomiting. If vomiting occurs, the head should be kept low so that stomach vomit doesn't enter the lungs.
Skin contact	Remove contaminated clothing immediately and wash skin with soap and water. Get medical attention if any discomfort continues.
Eye contact	Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes. Get medical attention immediately. Continue to rinse.

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

Inhalation	Upper respiratory irritation. Vapours may cause drowsiness and dizziness.
Ingestion	May be fatal if swallowed and enters airways.
Skin contact	Causes skin irritation.
Eye contact	May cause severe eye irritation.

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

Notes for the doctor	Treat symptomatically.
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SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	Extinguish with alcohol-resistant 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	Oxides of the following substances: Carbon.
Hazardous combustion products	Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours.

5.3. Advice for firefighters

Special protective equipment for firefighters	Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.
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SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions	Wear protective clothing as described in Section 8 of this safety data sheet. Take precautionary measures against static discharges. No smoking, sparks, flames or other sources of ignition near spillage. Avoid inhalation of vapours and contact with skin and eyes. Provide adequate ventilation.
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6.2. Environmental precautions

Environmental precautions	Spillages or uncontrolled discharges into watercourses must be reported immediately to the Environmental Agency or other appropriate regulatory body.
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6.3. Methods and material for containment and cleaning up

Methods for cleaning up	Absorb spillage with inert, damp, non-combustible material. Flush contaminated area with plenty of water. Collect and place in suitable waste disposal containers and seal securely. For waste disposal, see Section 13.
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6.4. Reference to other sections

CYCLOHEXANE/ ISOPROPANOL BLEND

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

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Usage precautions Avoid inhalation of vapours/spray and contact with skin and eyes. Keep away from heat, sparks and open flame. Provide adequate ventilation. Use approved respirator if air contamination is above an acceptable level. Use explosion proof electric equipment. Static electricity and formation of sparks must be prevented. Storage tanks and other containers must be earthed.

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions Keep away from heat, sparks and open flame. Take precautionary measures against static discharges. Store in tightly-closed, original container in a dry, cool and well-ventilated place.

Storage class Flammable liquid storage.

7.3. Specific end use(s)

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

Occupational exposure limits

CYCLOHEXANE

Long-term exposure limit (8-hour TWA): WEL 100 ppm 350 mg/m³

Short-term exposure limit (15-minute): WEL 300 ppm 1050 mg/m³

PROPAN-2-OL

Short-term exposure limit (15-minute): WEL 500 ppm 1250 mg/m³

Long-term exposure limit (8-hour TWA): WEL 400 ppm 999 mg/m³

WEL = Workplace Exposure Limit

CYCLOHEXANE (CAS: 110-82-7)

Ingredient comments	WEL = Workplace Exposure Limits
DNEL	Workers - Inhalation; Long term systemic effects: 700 mg/m³ Workers - Inhalation; Short term systemic effects: 700 mg/m³ Workers - Inhalation; Long term local effects: 700 mg/m³ Workers - Inhalation; Long term local effects: 700 mg/m³ Workers - Dermal; Long term systemic effects: 2016 mg/kg/day General population - Inhalation; Long term systemic effects: 206 mg/m³ General population - Inhalation; Short term systemic effects: 412 mg/m³ General population - Inhalation; Long term local effects: 206 mg/m³ General population - Inhalation; Short term local effects: 412 mg/m³ General population - Dermal; Long term systemic effects: 1186 mg/kg/day General population - Oral; Long term systemic effects: 59.4 mg/kg/day
PNEC	- Fresh water; 0.207 mg/l - Marine water; 0.207 mg/l - Intermittent release; 0.207 mg/l - STP; 3.24 mg/l - Sediment (Freshwater); 3.627 mg/kg - Sediment (Marinewater); 3.627 mg/kg - Soil; 2.99 mg/kg

CYCLOHEXANE/ ISOPROPANOL BLEND

PROPAN-2-OL (CAS: 67-63-0)

DNEL

Industry - Dermal; Long term systemic effects: 888 mg/kg/day
 Industry - Inhalation; Long term systemic effects: 500 mg/m³
 Consumer - Dermal; Long term systemic effects: 319 mg/kg/day
 Consumer - Inhalation; Long term systemic effects: 89 mg/m³
 Consumer - Oral; Long term systemic effects: 26 mg/kg/day

PNEC

- Fresh water; 140.9 mg/l
 - Marine water; 140.9 mg/l
 - Intermittent release; 140.9 mg/l
 - STP; 2251 mg/l
 - Sediment (Freshwater); 552 mg/kg
 - Sediment (Marinewater); 552 mg/kg
 - Soil; 28 mg/kg

8.2. Exposure controls

Protective equipment



Appropriate engineering controls

This product must not be handled in a confined space without adequate ventilation.

Eye/face protection

The following protection should be worn: Chemical splash goggles.

Hand protection

Use protective gloves. The most suitable glove should be chosen in consultation with the glove supplier/manufacturer, who can provide information about the breakthrough time of the glove material.

Other skin and body protection

Provide eyewash station. Wear suitable protective clothing as protection against splashing or contamination.

Hygiene measures

Do not smoke in work area. Wash hands at the end of each work shift and before eating, smoking and using the toilet. Wash promptly with soap and water if skin becomes contaminated. Promptly remove any clothing that becomes contaminated. When using do not eat, drink or smoke.

Respiratory protection

If ventilation is inadequate, suitable respiratory protection must be worn. Chemical respirator with organic vapour cartridge. EN 136/140/145/143/149

SECTION 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Appearance	Clear liquid.
Colour	Colourless.
Odour	Mild. Sweetish.
Odour threshold	Data lacking.
pH	Data lacking.
Melting point	6.6°C
Initial boiling point and range	79 - 82°C @
Flash point	-7°C

CYCLOHEXANE/ ISOPROPANOL BLEND

Evaporation rate	Data lacking.
Upper/lower flammability or explosive limits	Data lacking.
Vapour pressure	Data lacking.
Vapour density	Data lacking.
Relative density	0.78 @ °C
Solubility(ies)	Soluble in the following materials: Organic solvents.
Partition coefficient	Data lacking.
Auto-ignition temperature	>250°C
Decomposition Temperature	Data lacking.
Viscosity	Data lacking.
Explosive properties	Data lacking.
Oxidising properties	Data lacking.

9.2. Other information

Other information	Not available.
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SECTION 10: Stability and reactivity

10.1. Reactivity

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

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

Possibility of hazardous reactions	Not determined.
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10.4. Conditions to avoid

Conditions to avoid	Avoid heat, flames and other sources of ignition. Avoid excessive heat for prolonged periods of time.
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10.5. Incompatible materials

Materials to avoid	Strong oxidising agents. Strong acids.
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10.6. Hazardous decomposition products

Hazardous decomposition products	Oxides of the following substances: Carbon.
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SECTION 11: Toxicological information

11.1. Information on toxicological effects

Skin corrosion/irritation

Animal data	Data lacking.
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Serious eye damage/irritation

Serious eye damage/irritation	Irritating to eyes.
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Respiratory sensitisation

CYCLOHEXANE/ ISOPROPANOL BLEND

Respiratory sensitisation	Data lacking.
<u>Skin sensitisation</u>	
Skin sensitisation	Data lacking.
<u>Germ cell mutagenicity</u>	
Genotoxicity - in vivo	This substance has no evidence of mutagenic properties.
<u>Carcinogenicity</u>	
Carcinogenicity	There is no evidence that the product can cause cancer.
<u>Reproductive toxicity</u>	
Reproductive toxicity - fertility	This substance has no evidence of toxicity to reproduction.
<u>Aspiration hazard</u>	
Aspiration hazard	May be harmful if swallowed and enters airways.
Inhalation	Upper respiratory irritation. Vapours may cause drowsiness and dizziness.
Ingestion	Harmful: may cause lung damage if swallowed.
Skin contact	Irritating to skin.
Eye contact	Irritating to eyes.
<u>Toxicological information on ingredients.</u>	

CYCLOHEXANE

Inhalation	Vapours may cause drowsiness and dizziness. Vapours may irritate throat/respiratory system. Symptoms following overexposure may include the following: Coughing.
Ingestion	Harmful if swallowed.
Skin contact	Irritating to skin. Prolonged and frequent contact may cause redness and irritation.
Eye contact	May cause temporary eye irritation. Vapour or spray in the eyes may cause irritation and smarting.
Target organs	Central nervous system

PROPAN-2-OL

Acute toxicity - oral

Acute toxicity oral (LD₅₀ mg/kg)	5,000.0
Species	Rat
Notes (oral LD₅₀)	LD ₅₀ >5000 mg/kg, Oral, Rat

Acute toxicity - dermal

Acute toxicity dermal (LD₅₀ mg/kg)	5,000.0
Species	Rabbit

CYCLOHEXANE/ ISOPROPANOL BLEND

Notes (dermal LD₅₀) LD₅₀ >5000 mg/kg, Dermal, Rabbit

Skin corrosion/irritation

Animal data Not irritating.

Respiratory sensitisation

Respiratory sensitisation Not sensitising.

Skin sensitisation

Skin sensitisation Not sensitising.

Germ cell mutagenicity

Genotoxicity - in vivo Data lacking.

Carcinogenicity

Carcinogenicity There is no evidence that the product can cause cancer.

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

Reproductive toxicity

Reproductive toxicity - fertility Data lacking.

Specific target organ toxicity - single exposure

STOT - single exposure Data lacking.

Specific target organ toxicity - repeated exposure

STOT - repeated exposure Data lacking.

Inhalation May cause respiratory system irritation. Vapours may cause drowsiness and dizziness.

Ingestion Droplets of the product aspirated into the lungs through ingestion or vomiting may cause a serious chemical pneumonia.

Skin contact Prolonged contact may cause dryness of the skin.

Eye contact Irritating to eyes.

SECTION 12: Ecological Information

Ecotoxicity Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Ecological information on ingredients.

CYCLOHEXANE

Ecotoxicity The product contains a substance which is toxic to aquatic organisms and which may cause long-term adverse effects in the aquatic environment.

PROPAN-2-OL

Ecotoxicity The product is not expected to be toxic to aquatic organisms.

CYCLOHEXANE/ ISOPROPANOL BLEND

12.1. Toxicity

Toxicity Very toxic to aquatic life with long lasting effects.

Ecological information on ingredients.

CYCLOHEXANE

Toxicity	Very toxic to aquatic organisms.
<u>Acute aquatic toxicity</u>	
LE(C)₅₀	0.1 < L(E)C ₅₀ ≤ 1
M factor (Acute)	1
Acute toxicity - aquatic invertebrates	EC ₅₀ , 48 hours, 48 hours: 0.9 mg/l, Daphnia magna
Acute toxicity - aquatic plants	EC ₅₀ , 72 hours: >4 mg/l, Selenastrum capricornutum
<u>Chronic aquatic toxicity</u>	
M factor (Chronic)	1

PROPAN-2-OL

Toxicity	Not considered toxic to fish.
Acute toxicity - fish	LC ₅₀ , 48 hours: >100 mg/l, Leuciscus idus (Golden orfe)
Acute toxicity - aquatic invertebrates	EC ₅₀ , 48 hours: >100 mg/l, Daphnia magna
Acute toxicity - aquatic plants	EC ₅₀ , 72 hours: >100 mg/l, Scenedesmus subspicatus

12.2. Persistence and degradability

Persistence and degradability The product is readily biodegradable.

Ecological information on ingredients.

CYCLOHEXANE

Persistence and degradability	The substance is readily biodegradable.
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PROPAN-2-OL

Persistence and degradability	The substance is readily biodegradable.
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12.3. Bioaccumulative potential

Bioaccumulative potential The product does not contain any substances expected to be bioaccumulating.

Partition coefficient Data lacking.

Ecological information on ingredients.

CYCLOHEXANE/ ISOPROPANOL BLEND

CYCLOHEXANE

Bioaccumulative potential BCF: 167,

Partition coefficient : 3.44

PROPAN-2-OL

Bioaccumulative potential The product is not bioaccumulating.

Partition coefficient log Pow: 0.05

12.4. Mobility in soil

Mobility The product is miscible with water and may spread in water systems.

Ecological information on ingredients.

CYCLOHEXANE

Mobility The product is miscible with water and may spread in water systems.

PROPAN-2-OL

Mobility The product is soluble in water.

12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment This substance is not classified as PBT or vPvB according to current EU criteria.

Ecological information on ingredients.

CYCLOHEXANE

Results of PBT and vPvB assessment This product does not contain any substances classified as PBT or vPvB.

PROPAN-2-OL

Results of PBT and vPvB assessment This substance is not classified as PBT or vPvB according to current EU criteria.

12.6. Other adverse effects

Other adverse effects Not determined.

Ecological information on ingredients.

CYCLOHEXANE

Other adverse effects Not determined.

PROPAN-2-OL

Other adverse effects No data available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

CYCLOHEXANE/ ISOPROPANOL BLEND

General information

Waste is classified as hazardous waste. Disposal to licensed waste disposal site in accordance with the local Waste Disposal Authority. Do not puncture or incinerate, even when empty. Materials such as cleaning rags and paper wipes that are contaminated with flammable liquids may self-ignite after use and should be stored in designated fireproof containers with tight-fitting, self-closing lids.

Disposal methods

Dispose of waste and residues in accordance with local authority requirements.

SECTION 14: Transport information

14.1. UN number

UN No. (ADR/RID)	1993
UN No. (IMDG)	1993
UN No. (ICAO)	1993
UN No. (ADN)	1993

14.2. UN proper shipping name

Proper shipping name (ADR/RID) FLAMMABLE LIQUID, N.O.S. (CONTAINS CYCLOHEXANE, ISOPROPANOL)

Proper shipping name (IMDG) FLAMMABLE LIQUID, N.O.S. (CONTAINS CYCLOHEXANE, ISOPROPANOL)

Proper shipping name (ICAO) FLAMMABLE LIQUID, N.O.S. (CONTAINS CYCLOHEXANE, ISOPROPANOL)

Proper shipping name (ADN) FLAMMABLE LIQUID, N.O.S. (CONTAINS CYCLOHEXANE, ISOPROPANOL)

14.3. Transport hazard class(es)

ADR/RID class	3
ADR/RID classification code	F1
ADR/RID label	3
IMDG class	3
ICAO class/division	3
ADN class	3

Transport labels



14.4. Packing group

ADR/RID packing group	II
IMDG packing group	II
ADN packing group	II
ICAO packing group	II

14.5. Environmental hazards

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Environmentally hazardous substance/marine pollutant



14.6. Special precautions for user

EmS	F-E, S-E
ADR transport category	2
Emergency Action Code	•3YE
Hazard Identification Number (ADR/RID)	33
Tunnel restriction code	(D/E)

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

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code No information required.

SECTION 15: Regulatory information

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

National regulations	The Chemicals (Hazard Information and Packaging for Supply) Regulations 2009 (SI 2009 No. 716).
EU legislation	Dangerous Preparations Directive 1999/45/EC. 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 (as amended). 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). According to Regulation (EC) No 1907/2006, Annex II, as amended by Regulation (EU) No 453/2010 This product may impact SEVESO storage regulations.
Guidance	CHIP for everyone HSG228. Workplace Exposure Limits EH40. Safety Data Sheets for Substances and Preparations. Approved Classification and Labelling Guide (Sixth edition) L131. DSEAR

15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

SECTION 16: Other information

Revision comments	NOTE: Lines within the margin indicate significant changes from the previous revision.
Revision date	12/03/2015
Revision	02
Supersedes date	01/10/2011
SDS number	12070

CYCLOHEXANE/ ISOPROPANOL BLEND

SDS status	Approved.
Signature	Maxine Walker
Risk phrases in full	R11 Highly flammable. R36 Irritating to eyes. R38 Irritating to skin. R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. R65 Harmful: may cause lung damage if swallowed. R67 Vapours may cause drowsiness and dizziness.
Hazard statements in full	H225 Highly flammable liquid and vapour. H304 May be fatal if swallowed and enters airways. H315 Causes skin irritation. H319 Causes serious eye irritation. H336 May cause drowsiness or dizziness. H400 Very toxic to aquatic life. H410 Very toxic to aquatic life with long lasting effects.

TURKISH SIGNATURE