

Safety Data Sheet

Date of issue: 30/11/2015 Revision date: : Version: 1.0

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

1.1. Product identifie

Product form : Mixture

Product name : Custom Revised 8260 Additions Mix

Product code : AL0-130018
Product group : Trade product

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

#### 1.2.1. Relevant identified uses

Main use category : Laboratory Use Industrial/Professional use spec : Industrial

For professional use only

#### 1.2.2. Uses advised against

No additional information available

#### 1.3. Details of the supplier of the safety data sheet

Phenova

6390 Joyce Dr. Suite 100

80403 Golden, CO - United States

T 1-866-942-2978 - F 1-866-283-0269

info@phenova.com - www.phenova.com

# 1.4. Emergency telephone number

Emergency number : ChemTel Assistance (US/Canada) 1-800-255-3924

ChemTel Assistance (International) +1 813-248-0585

#### **SECTION 2: Hazards identification**

#### 2.1. Classification of the substance or mixture

#### Classification according to Regulation (EC) No. 1272/2008 [CLP]

Flam. Liq. 2 H225
Acute Tox. 3 (Oral) H301
Acute Tox. 3 (Dermal) H311
Eye Dam. 1 H318
Skin Sens. 1 H317
Carc. 1B H350
STOT SE 1 H370
Aquatic Chronic 3 H412

#### Classification according to Directive 67/548/EEC [DSD] or 1999/45/EC [DPD]

Carc.Cat.2; R45

F; R11

T; R23/24/25

T; R39/23/24/25

Xi; R36

R43 R19

R52/53

Full text of R-phrases: see section 16

#### Adverse physicochemical, human health and environmental effects

No additional information available

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#### 2.2. Label elements

#### Labeling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP) :









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Signal word (CLP) : Danger

Hazardous ingredients : Isobutanol; methanol; methacrylonitrile; propionitrile; acetonitrile; 1,4-dichloro-2-butene, (Z)-

Hazard statements (CLP) : H225 - Highly flammable liquid and vapor

H301+H311 - Toxic if swallowed or in contact with skin

H317 - May cause an allergic skin reaction H318 - Causes serious eye damage H350 - May cause cancer H370 - Causes damage to organs

H412 - Harmful to aquatic life with long lasting effects

Precautionary statements (CLP) : P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No

smoking

P233 - Keep container tightly closed

P260 - Do not breathe dust/fume/gas/mist/vapors/spray

P264 - Wash ... thoroughly after handling

P270 - Do not eat, drink or smoke when using this product

P272 - Contaminated work clothing should not be allowed out of the workplace

P273 - Avoid release to the environment

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

P308+P313 - IF exposed or concerned: Get medical advice/attention

P361+P364 - Take off immediately all contaminated clothing and wash it before reuse

P403+P235 - Store in a well-ventilated place. Keep cool

EUH phrases : EUH019 - May form explosive peroxides

No labeling applicable

#### 2.3. Other hazards

No additional information available

#### SECTION 3: Composition/information on ingredients

#### 3.1. Substance

Not applicable

# 3.2. Mixture

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
methanol (Component)	(CAS No) 67-56-1 (EC no) 200-659-6 (EC index no) 603-001-00-X	79.2	Flam. Liq. 2, H225 Acute Tox. 3 (Oral), H301 Acute Tox. 3 (Dermal), H311 Acute Tox. 3 (Inhalation), H331 STOT SE 1, H370
1,4-dioxane (Component)	(CAS No) 123-91-1 (EC no) 204-661-8 (EC index no) 603-024-00-5	4	Flam. Liq. 2, H225 Eye Irrit. 2, H319 Carc. 2, H351 STOT SE 3, H335
Isobutanol (Component)	(CAS No) 78-83-1 (EC no) 201-148-0 (EC index no) 603-108-00-1	4	Flam. Liq. 3, H226 Skin Irrit. 2, H315 Eye Dam. 1, H318 STOT SE 3, H335 STOT SE 3, H336
Isopropanol (Component)	(CAS No) 67-63-0 (EC no) 200-661-7 (EC index no) 603-117-00-0	2	Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336
methacrylonitrile (Component)	(CAS No) 126-98-7 (EC no) 204-817-5 (EC index no) 608-010-00-2	2	Flam. Liq. 2, H225 Acute Tox. 3 (Oral), H301 Acute Tox. 3 (Dermal), H311 Acute Tox. 3 (Inhalation), H331 Skin Sens. 1, H317
propionitrile (Component)	(CAS No) 107-12-0 (EC no) 203-464-4	2	Flam. Liq. 2, H225 Acute Tox. 2 (Oral), H300 Acute Tox. 2 (Dermal), H310 Eye Irrit. 2, H319
acetonitrile (Component)	(CAS No) 75-05-8 (EC no) 200-835-2 (EC index no) 608-001-00-3	2	Flam. Liq. 2, H225 Acute Tox. 4 (Oral), H302 Acute Tox. 3 (Dermal), H311 Acute Tox. 4 (Inhalation), H332 Eye Irrit. 2, H319

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Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
cyclohexane (Component)	(CAS No) 110-82-7 (EC no) 203-806-2 (EC index no) 601-017-00-1	0.2	Flam. Liq. 2, H225 Skin Irrit. 2, H315 STOT SE 3, H336 Asp. Tox. 1, H304 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
methylcyclohexane (Component)	(CAS No) 108-87-2 (EC no) 203-624-3 (EC index no) 601-018-00-7	0.2	Flam. Liq. 2, H225 Asp. Tox. 1, H304 Skin Irrit. 2, H315 STOT SE 3, H336 Aquatic Chronic 2, H411
allyl chloride (Component)	(CAS No) 107-05-1 (EC no) 203-457-6 (EC index no) 602-029-00-X	0.2	Flam. Liq. 2, H225 Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Demal), H312 Acute Tox. 4 (Inhalation), H332 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Muta. 2, H341 Carc. 2, H351 STOT SE 3, H335 STOT RE 2, H373 Aquatic Acute 1, H400
1,4-dichloro-2-butene, (Z)- (Component)	(CAS No) 1476-11-5 (EC no) 216-021-5 (EC index no) 602-073-00-X	0.2	Flam. Liq. 3, H226 Acute Tox. 3 (Oral), H301 Acute Tox. 3 (Dermal), H311 Skin Corr. 1B, H314 Carc. 1B, H350 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
Name	Product identifier	Specific	concentration limits
methanol (Component)	(CAS No) 67-56-1 (EC no) 200-659-6 (EC index no) 603-001-00-X	(3 = <c 10)="" 2,="" <="" h371<br="" se="" stot="">(C &gt;= 10) STOT SE 1, H370</c>	
methacrylonitrile (Component)	(CAS No) 126-98-7 (EC no) 204-817-5 (EC index no) 608-010-00-2	(C >= 0.2) Skin Sens. 1, H317	
1,4-dichloro-2-butene, (Z)- (Component)	(CAS No) 1476-11-5 (EC no) 216-021-5 (EC index no) 602-073-00-X		) Carc. 1B, H350 TOT SE 3, H335

#### SECTION 4: First aid measures

4.1. Description of first aid m	easures
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First-aid measures general : Never give anything by mouth to an unconscious person. Call a POISON CENTER or

doctor/physician. IF exposed or concerned: Get medical advice/attention.

First-aid measures after inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing.

First-aid measures after skin contact : Rinse skin with water/shower. Remove/Take off immediately all contaminated clothing.

Immediately call a poison center or doctor/physician. Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get medical

advice/attention.

First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to

do. Continue rinsing. Immediately call a poison center or doctor/physician.

First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention. Immediately call a

poison center or doctor/physician.

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

Symptoms/injuries after inhalation : May cause an allergic skin reaction.

Symptoms/injuries after skin contact : Repeated exposure to this material can result in absorption through skin causing significant

health hazard. Toxic in contact with skin.

Symptoms/injuries after eye contact : Causes serious eye damage.

Symptoms/injuries after ingestion : Toxic if swallowed. Swallowing a small quantity of this material will result in serious health

hazard.

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

No additional information available

#### **SECTION 5: Firefighting measures**

# 5.1. Extinguishing media

Suitable extinguishing media : Use extinguishing media appropriate for surrounding fire.

Unsuitable extinguishing media : Do not use a heavy water stream.

#### 5.2. Special hazards arising from the substance or mixture

Fire hazard : Highly flammable liquid and vapor.

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Explosion hazard : May form flammable/explosive vapor-air mixture. Heat may build pressure, rupturing closed containers, spreading fire and increasing risk of burns and injuries. May form explosive

peroxides.

5.3. Advice for firefighters

Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any

chemical fire. Prevent fire-fighting water from entering environment. DO NOT fight fire when fire

reaches explosives. Evacuate area.

Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

#### SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

#### 6.1.1. For non-emergency personnel

Emergency procedures : Evacuate unnecessary personnel.

#### 6.1.2. For emergency responders

Protective equipment : Equip cleanup crew with proper protection. Avoid breathing dust/fume/gas/mist/vapors/spray.

Emergency procedures : Ventilate area.

#### 6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters. Avoid release to the environment.

#### 6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Take up in absorbent material. Collect spillage.

#### 6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

#### **SECTION 7: Handling and storage**

#### 7.1. Precautions for safe handling

Additional hazards when processed : Handle empty containers with care because residual vapors are flammable. Hazardous waste

due to potential risk of explosion.

Precautions for safe handling : Wash hands and other exposed areas with mild soap and water before eating, drinking or

smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapor. No open flames. No smoking. Use only non-sparking tools. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep

away from sources of ignition - No smoking.

Hygiene measures : Do not eat, drink or smoke when using this product. Contaminated work clothing should not be

allowed out of the workplace. Wash contaminated clothing before reuse. Gently wash with plenty of soap and water. Remove/Take off immediately all contaminated clothing.

#### 7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Proper grounding procedures to avoid static electricity should be followed. Ground/bond

container and receiving equipment.

Storage conditions : Keep in fireproof place. Keep container tightly closed. Keep container tightly closed and in a

well-ventilated place. Keep away from any flames or sparking source.

Incompatible products : Oxidizing agent.

Incompatible materials : Direct sunlight. Heat sources.

#### 7.3. Specific end use(s)

No additional information available

# SECTION 8: Exposure controls/personal protection

# 8.1. Control parameters

No additional information available

#### 8.2. Exposure controls

Appropriate engineering controls : Either local exhaust or general room ventilation is usually required.

Personal protective equipment : Avoid all unnecessary exposure. Gloves. Protective clothing. Protective goggles. Safety

glasses.







Hand protection : Wear chemically resistant protective gloves. Wear suitable gloves resistant to chemical

penetration.

Eye protection : Chemical goggles or safety glasses. Safety glasses.

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Skin and body protection : Wear chemically protective gloves, lab coat or apron to prevent prolonged or repeated skin

contact.

Respiratory protection : Where exposure through inhalation may occur from use, respiratory protection equipment is

recommended.

Other information : Do not eat, drink or smoke during use.

# SECTION 9: Physical and chemical properties

#### 9.1. Information on basic physical and chemical properties

Physical state : Liquid Color : Colorless. Odor : characteristic. No data available рΗ Melting point No data available No data available Freezing point Boiling point No data available Flash point No data available Auto-ignition temperature No data available Decomposition temperature : No data available

Flammability (solid, gas) : Highly flammable liquid and vapor

Relative density : No data available Solubility : No data available

Explosive properties : May form explosive peroxides.

Oxidizing properties : No data available Explosion limits : No data available

#### 9.2. Other information

No additional information available

# **SECTION 10: Stability and reactivity**

#### 10.1. Reactivity

No additional information available

# 10.2. Chemical stability

Highly flammable liquid and vapor. May form flammable/explosive vapor-air mixture.

#### 10.3. Possibility of hazardous reactions

Reacts vigorously with strong oxidizers and acids.

# 10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures. Open flame. Heat. Sparks. Overheating.

#### 10.5. Incompatible materials

Oxidizing agent.

#### 10.6. Hazardous decomposition products

May release flammable gases. May form explosive peroxides.

# **SECTION 11: Toxicological information**

#### 11.1. Information on toxicological effects

Acute toxicity : Oral: Toxic if swallowed. Dermal: Toxic in contact with skin.

Custom Revised 8260 Additions Mix		
ATE CLP (oral)	113.568 mg/kg body weight	
ATE CLP (dermal)	349.595 mg/kg body weight	
Isopropanol (67-63-0)		
LD50 dermal rabbit	12870 mg/kg (Rabbit; Experimental value; Equivalent or similar to OECD 402; 16.4; Rabbit)	
LC50 inhalation rat (mg/l)	73 mg/l/4h (Rat)	
ATE CLP (dermal)	12870.000 mg/kg body weight	
ATE CLP (vapors)	73.000 mg/l/4h	
ATE CLP (dust, mist)	73.000 mg/l/4h	
cyclohexane (110-82-7)		
LD50 oral rat	> 12705 mg/kg (Rat; Equivalent or similar to OECD 401; Experimental value; >5000 mg/kg bodyweight; Rat)	
LD50 dermal rabbit	> 2000 mg/kg body weight (Rabbit; Experimental value; Equivalent or similar to OECD 402)	
LC50 inhalation rat (mg/l)	> 19.07 mg/l/4h (Rat; Experimental value)	

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cyclohexane (110-82-7)	
LC50 inhalation rat (ppm)	> 5540 ppm/4h (Rat)
methylcyclohexane (108-87-2)	
LD50 oral rat	> 5840 mg/kg body weight (Rat; OECD 401: Acute Oral Toxicity; Read-across)
LD50 dermal rat	> 2800 mg/kg body weight (Rat; Read-across)
LD50 dermal rabbit	86700 mg/kg (Rabbit; Literature study)
1,4-dioxane (123-91-1)	
LD50 oral rat	> 5000 mg/kg (Rat)
LD50 dermal rabbit	7600 mg/kg (Rabbit)
LC50 inhalation rat (mg/l)	51 mg/l/4h (Rat)
LC50 inhalation rat (ppm)	14250 ppm/4h (Rat)
ATE CLP (dermal)	7600.000 mg/kg body weight
ATE CLP (gases)	14250.000 ppmV/4h
ATE CLP (vapors)	51.000 mg/l/4h
ATE CLP (dust, mist)	51.000 mg/l/4h
Isobutanol (78-83-1)	
LD50 oral rat	> 2830 mg/kg body weight (Rat; OECD 401: Acute Oral Toxicity; Experimental value; 3350
LD50 Graffat	mg/kg bodyweight; Rat; OECD 401: Acute Oral Toxicity; Experimental value, 5350
LD50 dermal rabbit	2460 mg/kg body weight (Rabbit; Experimental value; OECD 402: Acute Dermal Toxicity; >
	2000 mg/kg bodyweight; Rabbit; Experimental value; OECD 402: Acute Dermal Toxicity)
ATE CLP (dermal)	2460.000 mg/kg body weight
methacrylonitrile (126-98-7)	
LD50 oral rat	64 - 73 mg/kg (Rat)
LD50 dermal rabbit	280 mg/kg (Rabbit)
LC50 inhalation rat (mg/l)	0.66 mg/l/4h (Rat)
LC50 inhalation rat (ppm)	328 ppm/4h (Rat)
ATE CLP (oral)	64.000 mg/kg body weight
ATE CLP (dermal)	280.000 mg/kg body weight
ATE CLP (gases)	328.000 ppmV/4h
ATE CLP (gases)	0.660 mg/l/4h
ATE CLP (dust, mist)	0.660 mg/l/4h
	0.000 mg/n-m
propionitrile (107-12-0)	00 (1 (2 )
LD50 oral rat	39 mg/kg (Rat)
LD50 dermal rabbit	164 mg/kg (Rabbit)
LC50 inhalation rat (mg/l)	1.6 mg/l/4h (Rat)
LC50 inhalation rat (ppm)	730 ppm/4h (Rat)
ATE CLP (oral)	39.000 mg/kg body weight
ATE CLP (dermal)	164.000 mg/kg body weight
ATE CLP (gases)	730.000 ppmV/4h
ATE CLP (vapors)	1.600 mg/l/4h
ATE CLP (dust, mist)	1.600 mg/l/4h
acetonitrile (75-05-8)	
LD50 oral rat	> 1327 mg/kg (Rat)
LD50 dermal rabbit	980 mg/kg (Rabbit)
LC50 inhalation rat (mg/l)	27 mg/l/4h (Rat)
LC50 inhalation rat (ppm)	16000 ppm/4h (Rat)
ATE CLP (oral)	500.000 mg/kg body weight
ATE CLP (dermal)	980.000 mg/kg body weight
ATE CLP (gases)	16000.000 ppmV/4h
ATE CLP (vapors)	11.000 mg/l/4h
ATE CLP (dust, mist)	1.500 mg/l/4h
allyl chloride (107-05-1)	
LD50 oral rat	425 mg/kg (Rat; OECD 401: Acute Oral Toxicity; Experimental value; 275-455 mg/kg bodyweight; Rat; OECD 401: Acute Oral Toxicity; Experimental value; 379 - 419 mg/kg bodyweight; Rat)
LD50 dermal rabbit	2066 mg/kg (Rabbit; Experimental value; Equivalent or similar to OECD 402; 398 mg/kg bodyweight; Rabbit)
LC50 inhalation rat (mg/l)	6.7 mg/l/4h (Rat)
LC50 inhalation rat (ppm)	2100 ppm/4h (Rat)
ATE CLP (oral)	425.000 mg/kg body weight
ATE CLP (dermal)	1100.000 mg/kg body weight
23/42/204E	The cook many body weight

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allyl chloride (107-05-1)			
ATE CLP (gases)	2100.000 ppmV/4h		
ATE CLP (vapors)	6.700 mg/l/4h		
ATE CLP (dust, mist)	1.500 mg/l/4h		
1,4-dichloro-2-butene, (Z)- (1476-11-5)	1,4-dichloro-2-butene, (Z)- (1476-11-5)		
ATE CLP (oral)	100.000 mg/kg body weight		
ATE CLP (dermal)	300.000 mg/kg body weight		
methanol (67-56-1)	methanol (67-56-1)		
LD50 oral rat	> 5000 mg/kg (Rat; BASF test; Literature study; 1187-2769 mg/kg bodyweight; Rat; Weight of evidence)		
LD50 dermal rabbit	15800 mg/kg (Rabbit; Literature study)		
LC50 inhalation rat (mg/l)	85 mg/l/4h (Rat; Literature study)		
LC50 inhalation rat (ppm)	64000 ppm/4h (Rat; Literature study)		
ATE CLP (oral)	100.000 mg/kg body weight		
ATE CLP (dermal)	300.000 mg/kg body weight		
ATE CLP (gases)	700.000 ppmV/4h		
ATE CLP (vapors)	3.000 mg/l/4h		
ATE CLP (dust, mist)	0.500 mg/l/4h		

Skin corrosion/irritation : Not classified

Based on available data, the classification criteria are not met

Serious eye damage/irritation : Causes serious eye damage.

Respiratory or skin sensitization : May cause an allergic skin reaction.

Germ cell mutagenicity : Not classified

Based on available data, the classification criteria are not met

Carcinogenicity : May cause cancer.
May cause cancer

Reproductive toxicity : Not classified

Based on available data, the classification criteria are not met : Causes damage to organs.

Specific target organ toxicity (single exposure)

Specific target organ toxicity (repeated :

exposure)

: Not classified

Based on available data, the classification criteria are not met

Aspiration hazard : Not classified

Based on available data, the classification criteria are not met

Potential Adverse human health effects and

symptoms

: Toxic if swallowed. Toxic in contact with skin.

# SECTION 12: Ecological information

40.4	
14.1.	IUXICILY

Ecology - water : Harmful to aquatic life with long lasting effects.

Isopropanol (67-63-0)	
LC50 fish 2	9640 mg/l (LC50; OECD 203: Fish, Acute Toxicity Test; 96 h; Pimephales promelas; Flow-through system; Fresh water; Experimental value)
EC50 Daphnia 2	13299 mg/l (EC50; Other; 48 h; Daphnia magna)
Threshold limit algae 1	> 1000 mg/l (EC50; UBA; 72 h; Scenedesmus subspicatus)
cyclohexane (110-82-7)	
LC50 fish 1	4.53 mg/l (LC50; OECD 203: Fish, Acute Toxicity Test; 96 h; Pimephales promelas; Flow-through system; Fresh water; Experimental value)
EC50 Daphnia 1	0.9 mg/l (EC50; OECD 202: Daphnia sp. Acute Immobilisation Test; 48 h; Daphnia magna; Static system; Fresh water; Experimental value)
Threshold limit algae 1	3.428 mg/l (EbC50; OECD 201: Alga, Growth Inhibition Test; 72 h; Selenastrum capricornutum)
Threshold limit algae 2	0.925 mg/l (NOEC; OECD 201: Alga, Growth Inhibition Test; 72 h; Selenastrum capricornutum)
methylcyclohexane (108-87-2)	
LC50 fish 2	5.4 mg/l (LC50; 96 h; Salmo gairdneri; Semi-static system)
Threshold limit algae 2	29 mg/l (ErC50; OECD 201: Alga, Growth Inhibition Test; 72 h; Selenastrum capricornutum; Static system; Fresh water; Read-across)
1,4-dioxane (123-91-1)	
EC50 Daphnia 1	8450 mg/l (EC50; 24 h)
LC50 fish 2	13000 mg/l (LC50; 96 h)

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1,4-dioxane (123-91-1)	
Threshold limit algae 2	5600 mg/l (EC0; 192 h)
sobutanol (78-83-1)	
_C50 fish 1	1430 mg/l (LC50; Other; 96 h; Pimephales promelas; Flow-through system; Fresh water; Experimental value)
EC50 Daphnia 1	1100 mg/l (EC50; ASTM; 48 h; Daphnia pulex; Static system; Fresh water; Experimental value)
Threshold limit algae 1	593 mg/l (EC50; OECD 201: Alga, Growth Inhibition Test; 72 h; Pseudokirchneriella subcapitata; Static system; Fresh water; Experimental value)
Threshold limit algae 2	< 53 mg/l (NOEC; OECD 201: Alga, Growth Inhibition Test; 72 h; Pseudokirchneriella subcapitata; Static system; Fresh water; Experimental value)
methacrylonitrile (126-98-7)	
_C50 fish 1	100 - 1000 mg/l (LC50; 96 h)
propionitrile (107-12-0)	
_C50 fish 1	1520 mg/l (LC50; 96 h; Pimephales promelas)
acetonitrile (75-05-8)	
_C50 fish 1	1640 mg/l (LC50; Other; 96 h; Pimephales promelas; Flow-through system; Fresh water; Experimental value)
EC50 Daphnia 1	> 1000 mg/l (EC50; OECD 202: Daphnia sp. Acute Immobilisation Test; 48 h; Daphnia magna Semi-static system; Fresh water; Experimental value)
Threshold limit algae 1	9696 mg/l (EC50; ISO 10253; 72 h; Phaeodactylum; Static system; Salt water; Experimental value)
Threshold limit algae 2	> 1000 mg/l (EC50; OECD 201: Alga, Growth Inhibition Test; 72 h; Pseudokirchneriella subcapitata; Static system; Fresh water; Experimental value)
allyl chloride (107-05-1)	
_C50 fish 2	0.32 mg/l (LC50; 96 h; Pimephales promelas; Static system)
EC50 Daphnia 2	0.25 - 0.4 mg/l (LC50; 96 h; Daphnia magna; Static system)
methanol (67-56-1)	
_C50 fish 1	15400 mg/l (LC50; EPA 660/3 - 75/009; 96 h; Lepomis macrochirus; Flow-through system; Fresh water; Experimental value)
EC50 Daphnia 1	> 10000 mg/l (EC50; DIN 38412-11; 48 h; Daphnia magna; Static system; Fresh water; Experimental value)
_C50 fish 2	10800 mg/l (LC50; 96 h; Salmo gairdneri)

12.2. Persistence and degradability		
Custom Revised 8260 Additions Mix		
Persistence and degradability	May cause long-term adverse effects in the environment.	
Isopropanol (67-63-0)		
Persistence and degradability	Readily biodegradable in water. Biodegradable in the soil. Biodegradable in the soil under anaerobic conditions. No (test)data on mobility of the substance available.	
Biochemical oxygen demand (BOD)	1.19 g O /g substance	
Chemical oxygen demand (COD)	2.23 g O /g substance	
ThOD	2.40 g O /g substance	
cyclohexane (110-82-7)		
Persistence and degradability	Readily biodegradable in water. Non degradable in the soil. Low potential for adsorption in soil.	
Biochemical oxygen demand (BOD)	0.22 g O /g substance	
ThOD	3.425 g O /g substance	
BOD (% of ThOD)	< 0.5 (Literature study)	
methylcyclohexane (108-87-2)		
Persistence and degradability	Not readily biodegradable in water. Low potential for adsorption in soil.	
1,4-dioxane (123-91-1)		
Persistence and degradability	Not readily biodegradable in water. Non degradable in the soil. Photooxidation in the air.	
Biochemical oxygen demand (BOD)	0 g O /g substance	
ThOD	1.8 g O /g substance	
BOD (% of ThOD)	0	
Isobutanol (78-83-1)		
Persistence and degradability	Readily biodegradable in water. Biodegradable in the soil. Low potential for adsorption in soil. Photodegradation in the air.	
methacrylonitrile (126-98-7)		
Persistence and degradability	Biodegradable in the soil.	

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propionitrile (107-12-0)	
Persistence and degradability	Biodegradability in water: no data available.
acetonitrile (75-05-8)	
Persistence and degradability	Readily biodegradable in water. No (test)data on mobility of the substance available.
Biochemical oxygen demand (BOD)	0.17 g O /g substance
ThOD	3.12 g O /g substance
BOD (% of ThOD)	0.055
allyl chloride (107-05-1)	
Persistence and degradability	Readily biodegradable in water. Biodegradable in the soil. Highly mobile in soil. Photodegradation in the air.
Biochemical oxygen demand (BOD)	0.23 g O /g substance
Chemical oxygen demand (COD)	0.86 g O /g substance
ThOD	1.7 g O /g substance
BOD (% of ThOD)	0.14 (5 days; Calculated value)
methanol (67-56-1)	
Persistence and degradability	Readily biodegradable in water. Biodegradable in the soil. Highly mobile in soil.
Biochemical oxygen demand (BOD)	0.6 - 1.12 g O /g substance
Chemical oxygen demand (COD)	1.42 g O /g substance
ThOD	1.5 g O /g substance
BOD (% of ThOD)	0.8 (Literature study)
12.3. Bioaccumulative potential	
Custom Revised 8260 Additions Mix	
Bioaccumulative potential	Not established.
Isopropanol (67-63-0)	
Log Pow	0.05 (Weight of evidence approach; Other; 25 °C)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).
cyclohexane (110-82-7)	
BCF fish 2	31 - 129 (BCF; 8 weeks; Cyprinus carpio)
Log Pow	3.44 (Experimental value; 25 °C)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).
methylcyclohexane (108-87-2)	
BCF fish 1	95 - 321 (BCF; 8 weeks; Cyprinus carpio)
Log Pow	3.88 (Literature)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).
'	25.11 potential for production (2.5.1
1,4-dioxane (123-91-1)  BCF fish 1	0.2 - 0.7 (BCF)
Log Pow	-0.27 (Experimental value)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).
· .	25.1 Pototinal for prodocentialistic (por 1000).
Isobutanol (78-83-1) Log Pow	1 (Practical experience/observation; 25 °C)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).
·	Low potential for bloaccumulation (Log Now < 4).
methacrylonitrile (126-98-7)	
Bioaccumulative potential	Not bioaccumulative.
propionitrile (107-12-0)	
Log Pow	0.16
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).
acetonitrile (75-05-8)	
BCF other aquatic organisms 1	3.162 (BCF; BCFWIN)
Log Pow	0.29 (Weight of evidence approach; Equivalent or similar to OECD 107; 25 °C)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).
allyl chloride (107-05-1)	
BCF fish 1	< 5.6 (BCF; OECD 305: Bioconcentration: Flow-Through Fish Test; 42 days; Cyprinus carpio)
Log Pow	2.1 (Experimental value; OECD 117: Partition Coefficient (n-octanol/water), HPLC method; 25
	°C)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).
1,4-dichloro-2-butene, (Z)- (1476-11-5)	
Log Pow	2.6 (Estimated value)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).

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Salety Data Sileet		
methanol (67-56-1)		
BCF fish 1	< 10 (BCF; 72 h; Leuciscus idus)	
Log Pow	-0.77 (Experimental value; Other)	
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).	
12.4. Mobility in soil		
Isopropanol (67-63-0)		
Surface tension	0.021 N/m (25 °C)	
cyclohexane (110-82-7)		
Surface tension	0.025 N/m (20 °C)	
Log Koc	log Koc,Other; 2.89; QSAR; Koc; Other; 770; QSAR	
methylcyclohexane (108-87-2)		
Log Koc	log Koc,SRC PCKOCWIN v2.0; 2.369; Calculated value	
1,4-dioxane (123-91-1)		
Surface tension	0.037 N/m (20 °C)	
Isobutanol (78-83-1)		
Surface tension	0.0697 N/m (20 °C)	
Log Koc	log Koc,SRC PCKOCWIN v1.66; 0.31; Calculated value	
methacrylonitrile (126-98-7)		
Surface tension	0.024 N/m (20 °C)	
propionitrile (107-12-0)		
Surface tension	0.027 N/m (25 °C)	
acetonitrile (75-05-8)		
Surface tension	0.029 N/m (20 °C)	
allyl chloride (107-05-1)		
Surface tension	0.023 N/m (20 °C)	
Log Koc	log Koc,SRC PCKOCWIN v2.0; 1.67; Calculated value	
1,4-dichloro-2-butene, (Z)- (1476-11-5)		
Surface tension	0.024 N/m (20 °C)	
Log Koc	log Koc,2.33; Experimental value	
methanol (67-56-1)		
Surface tension	0.023 N/m (20 °C)	
Log Koc	Koc,PCKOCWIN v1.66; 1; Calculated value	
12.5. Results of PBT and vPvB assessmer	12.5. Results of PBT and vPvB assessment	
No additional information available		

12.6. Other adverse effects

Additional information : Avoid release to the environment

# SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.

Additional information : Handle empty containers with care because residual vapors are flammable. Hazardous waste

due to potential risk of explosion.

Ecology - waste materials : Avoid release to the environment. Hazardous waste due to toxicity.

# SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

14.1. UN number

UN-No. (ADR) : 1992 UN-No. (IATA) : 1992

14.2. UN proper shipping name

Proper Shipping Name (ADR) : FLAMMABLE LIQUID, TOXIC, N.O.S. Proper Shipping Name (IATA) : FLAMMABLE LIQUID, TOXIC, N.O.S.

Transport document description (ADR) : UN 1992 FLAMMABLE LIQUID, TOXIC, N.O.S., 3 (6.1), II, (D/E)

14.3. Packing group

Class (ADR) : 3
Classification code (ADR) : FT1

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Class (IATA) : 3
Subsidiary risks (ADR) : 6.1
Hazard labels (ADR) : 3, 6.1



Hazard labels (IATA) : 3, 6.1



14.4. Packing group

Packing group (ADR) : II Packing group (IATA) : II

14.5. Environmental hazards

Other information : No supplementary information available.

14.6. Special precautions for user

14.6.1. Overland transport

Hazard identification number (Kemler No.) : 336 Classification code (ADR) : FT1

Orange plates : 336

1992

Special provision (ADR) : 274

Transport category (ADR) : 2

Tunnel restriction code (ADR) : D/E

Limited quantities (ADR) : 11

Excepted quantities (ADR) : E2

14.6.2. Transport by sea

No additional information available

14.6.3. Air transport

CAO packing instructions (IATA) : 364 CAO max net quantity (IATA) : 60L PCA packing instructions (IATA) : 352 PCA Limited quantities (IATA) : Y341 PCA limited quantity max net quantity (IATA) : 1L PCA max net quantity (IATA) : 1L PCA Excepted quantities (IATA) : E2 ERG code (IATA) : 3HP

14.6.4. Inland waterway transport

Carriage prohibited (ADN) : No

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

Not applicable

# **SECTION 15: Regulatory information**

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

#### 15.1.1. EU-Regulations

Contains no substances with Annex XVII restrictions

Contains no REACH candidate substance

Contains no REACH Annex XIV substances.

#### 15.1.2. National regulations

No additional information available

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15.2. Chemical safety assessment

No chemical safety assessment has been carried out

# SECTION 16: Other information

Data sources : REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE

COUNCIL of 16 December 2008 on classification, labeling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending

Regulation (EC) No 1907/2006.

Other information : None.

PHV SDS EU

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