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

1.1. Product identifier

Mixture identification:

Trade name: HAPPY COLOR ACQUA cod. 88145?

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

Recommended use:

Spray Paint

Uses advised against:

This product is not recommended for all those uses not specifically identified on the label.

1.3. Details of the supplier of the safety data sheet

Company:

SARATOGA INT.SFORZA SPA
Via Edison 76 20090 Trezzano s/Naviglio (MI) - Italia
Fax +39 02 445731 Tel.+39 02 4452742

Competent person responsible for the safety data sheet:

trading@saratogasforza.com

1.4. Emergency telephone number

CAV - Ospedale Pediatrico "Bambino Gesù" - Roma - Tel. +39 06 68593726 (h24)
CAV - Azienda Ospedaliero-Universitaria Foggia - Foggia - Tel. +39 0881 732326 (h24)
CAV - Azienda Ospedaliera "A. Cardarelli" - Napoli - Tel. +39 081 7472870 (h24)
CAV - Policlinico "Umberto I" - Roma - Tel. +39 06 4450618 (h24)
CAV - Policlinico "A. Gemelli" - Roma - Tel. +39 06 3054343 (h24)
CAV - Azienda Ospedaliera "Careggi" U.O. Tossicologia Medica - Firenze - Tel. +39 055 7947819(h24)
CAV - Centro Nazionale di Informazione Tossicologica - Pavia - Tel. +39 0382 24444 (h24)
CAV - Ospedale "Niguarda Ca' Granda" - Milano - Tel. +39 02 66101029 (h24)
CAV - Azienda Ospedaliera "Papa Giovanni XXIII" - Bergamo - Tel. +39 800 883300 (h24)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

EC regulation criteria 1272/2008 (CLP)

Danger, Aerosols 1, Extremely flammable aerosol. Pressurized container: may burst if heated.

Warning, Eye Irrit. 2, Causes serious eye irritation.

Adverse physicochemical, human health and environmental effects:

No other hazards

2.2. Label elements

Hazard pictograms:

Danger

Hazard statements:

H222+H229 Extremely flammable aerosol. Pressurized container: may burst if heated.
H319 Causes serious eye irritation.

Precautionary statements:

P101 If medical advice is needed, have product container or label at hand.
P102 Keep out of reach of children.
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P211 Do not spray on an open flame or other ignition source.
P251 Do not pierce or burn, even after use.
P261 Avoid breathing spray.

P271 Use only outdoors or in a well-ventilated area.
P280 Wear protective gloves/protective clothing/eye protection/face 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.
P405 Store locked up.
P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122°F.
P501 Dispose of contents/container in authorized collection centers.

In case of insufficient ventilation highly flammable mixtures may develop.

Special Provisions:

None

Contains:

2,4,7,9-tetramethyldec-5-yne-4,7-diol: May produce an allergic reaction.

Special provisions according to Annex XVII of REACH and subsequent amendments:

None

2.3. Other hazards

vPvB Substances: None - PBT Substances: None

Other Hazards:

No other hazards

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Hazardous components within the meaning of the CLP regulation and related classification:

>= 50% - < 60% dimethyl ether

REACH No.: 01-2119472128-37, Index number: 603-019-00-8, CAS: 115-10-6, EC: 204-065-8
2.2/1 Flam. Gas 1 H220
2.5 Press. Gas H280
DECLK (CLP)*

>= 10% - < 15% propan-2-ol; isopropyl alcohol; isopropanol

REACH No.: 01-2119457558-25, Index number: 603-117-00-0, CAS: 67-63-0, EC: 200-661-7
2.6/2 Flam. Liq. 2 H225
3.3/2 Eye Irrit. 2 H319
3.8/3 STOT SE 3 H336

>= 1% - < 3% 2-butoxyethanol; ethylene glycol monobutyl ether

REACH No.: 01-2119475108-36, Index number: 603-014-00-0, CAS: 111-76-2, EC: 203-905-0
3.3/2 Eye Irrit. 2 H319
3.2/2 Skin Irrit. 2 H315
3.1/4/Oral Acute Tox. 4 H302
3.1/4/Dermal Acute Tox. 4 H312
3.1/4/Inhal Acute Tox. 4 H332

>= 0.1% - < 0.25% ammonia 30%

Index number: 007-001-01-2, CAS: 1336-21-6, EC: 215-647-6
3.2/1B Skin Corr. 1B H314
4.1/A1 Aquatic Acute 1 H400

Specific Concentration Limits:
C >= 5%: STOT SE 3 H335

>= 0.1% - < 0.25% ethanediol; ethylene glycol

REACH No.: 01-2119456816-28, Index number: 603-027-00-1, CAS: 107-21-1, EC: 203-473-3
3.1/4/Oral Acute Tox. 4 H302

3.9/2 STOT RE 2 H373

>= 0.1% - < 0.25% 2,4,7,9-tetramethyldec-5-yne-4,7-diol
REACH No.: 01-2119954390-39, CAS: 126-86-3, EC: 204-809-1
3.3/1 Eye Dam. 1 H318
3.4.2/1B Skin Sens. 1B H317
4.1/C3 Aquatic Chronic 3 H412

61 ppm (2-methoxymethylethoxy)propanol
REACH No.: 01-2119450011-60, CAS: 34590-94-8, EC: 252-104-2
Substance with a Union workplace exposure limit.

*DECLK (CLP): Substance classified in accordance with Note K, Annex VI of EC Regulation (EC) 1272/2008. The classification as a carcinogen or mutagen need not apply if it can be shown that the substance contains less than 0,1 % w/w 1,3-butadiene (Einecs No 203-450-8). If the substance is not classified as a carcinogen or mutagen, at least the precautionary statements (P102-)P210-P403 should apply. This note applies only to certain complex oil-derived substances in Part 3.

SECTION 4: First aid measures

4.1. Description of first aid measures
In case of skin contact:
Immediately take off all contaminated clothing.
Areas of the body that have - or are only even suspected of having - come into contact with the product must be rinsed immediately with plenty of running water and possibly with soap. Wash thoroughly the body (shower or bath).
Remove contaminated clothing immediately and dispose off safely.
After contact with skin, wash immediately with soap and plenty of water.
In case of eyes contact:
After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an opthalmologist immediately.
Protect uninjured eye.
In case of Ingestion:
Do not under any circumstances induce vomiting. OBTAIN A MEDICAL EXAMINATION IMMEDIATELY.
In case of Inhalation:
Remove casualty to fresh air and keep warm and at rest.
4.2. Most important symptoms and effects, both acute and delayed
None
4.3. Indication of any immediate medical attention and special treatment needed
In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).
Treatment:
None

SECTION 5: Firefighting measures

5.1. Extinguishing media
Suitable extinguishing media:
CO2 or Dry chemical fire extinguisher.
Extinguishing media which must not be used for safety reasons:
None in particular.
5.2. Special hazards arising from the substance or mixture
Do not inhale explosion and combustion gases.
Burning produces heavy smoke.
5.3. Advice for firefighters

The heat provokes an increase of the pressure inside the container with danger of burst. In case of fire the aerosols bursting can be projected to distance with violence, with risk of propagation of the fire.
Use suitable breathing apparatus .
Collect contaminated fire extinguishing water separately. This must not be discharged into drains.
Move undamaged containers from immediate hazard area if it can be done safely.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures
Wear personal protection equipment.
Remove all sources of ignition.
Remove persons to safety.
See protective measures under point 7 and 8.
6.2. Environmental precautions
Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains.
Retain contaminated washing water and dispose it.
In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.
Suitable material for taking up: absorbing material, organic, sand
6.3. Methods and material for containment and cleaning up
Wash with plenty of water.
6.4. Reference to other sections
See also section 8 and 13

SECTION 7: Handling and storage

7.1. Precautions for safe handling
Avoid contact with skin and eyes, inhalation of vapours and mists.
Don't use empty container before they have been cleaned.
Before making transfer operations, assure that there aren't any incompatible material residuals in the containers.
Contamined clothing should be changed before entering eating areas.
Do not eat or drink while working.
See also section 8 for recommended protective equipment.
7.2. Conditions for safe storage, including any incompatibilities
Vapours are more weighty then air. Vapours may form explosive mixture with air.
Store at below 20 °C. Keep away from unguarded flame and heat sources. Avoid direct exposure to sunlight.
Keep away from unguarded flame, sparks, and heat sources. Avoid direct exposure to sunlight.
Keep away from food, drink and feed.
Incompatible materials:
None in particular.
Instructions as regards storage premises:
Cool and adequately ventilated.
7.3. Specific end use(s)
None in particular

SECTION 8: Exposure controls/personal protection

8.1. Control parameters
dimethyl ether - CAS: 115-10-6
EU - TWA(8h): 1920 mg/m3, 1000 ppm
MAK - TWA(8h): 1910 mg/m3, 1000 ppm - Notes: SWISS
TLV TWA - 1000 ppm - 1920 mg/m3
propan-2-ol; isopropyl alcohol; isopropanol - CAS: 67-63-0
ACGIH - TWA(8h): 200 ppm - STEL: 400 ppm - Notes: A4, BEI - Eye and URT irr, CNS impair

MAK - TWA(8h): 500 mg/m3, 200 ppm - STEL: 1000 mg/m3, 400 ppm - Notes: SWISS
GVI - TWA(8h): 999 mg/m3, 400 ppm - STEL: 1250 mg/m3, 500 ppm - Notes: CROATIA
VLA - TWA(8h): 500 mg/m3, 200 ppm - STEL: 1000 mg/m3, 440 ppm - Notes: SPAIN - VLB, s
TLV - TWA(8h): 500 mg/m3 - STEL: 1000 mg/m3 - Notes: CZECH REPUBLIC
MAK - TWA(8h): 500 mg/m3, 200 ppm - STEL: 1000 mg/m3, 400 ppm - Notes: GERMANY
VLEP - STEL: 980 mg/m3, 400 ppm - Notes: FRANCE
National - TWA(8h): 999 mg/m3, 400 ppm - STEL: 1250 mg/m3, 500 ppm - Notes: UNITED KINGDOM

2-butoxyethanol; ethylene glycol monobutyl ether - CAS: 111-76-2
EU - TWA(8h): 98 mg/m3, 20 ppm - STEL: 246 mg/m3, 50 ppm - Notes: Skin
ACGIH - TWA(8h): 20 ppm - Notes: A3, BEI - Eye and URT irr
MAK - TWA(8h): 49 mg/m3, 10 ppm - STEL: 98 mg/m3, 20 ppm - Notes: SWISS
MAK - TWA(8h): 98 mg/m3, 20 ppm - STEL(): 200 mg/m3, 40 ppm - Notes: AUSTRIA
TLV - TWA(8h): 100 mg/m3 - STEL(): 200 mg/m3 - Notes: CZECH REPUBLIC
MAK - TWA(8h): 49 mg/m3, 10 ppm - STEL(): 98 mg/m3, 20 ppm - Notes: GERMANY
VLEP - TWA(8h): 49 mg/m3, 10 ppm - STEL(): 246 mg/m3, 50 ppm - Notes: FRANCE
National - TWA(8h): 25 ppm - STEL(): 50 ppm - Notes: UNITED KINGDOM: Skin

ethanediol; ethylene glycol - CAS: 107-21-1
EU - TWA(8h): 52 mg/m3, 20 ppm - STEL: 104 mg/m3, 40 ppm - Notes: Skin
ACGIH - STEL: 10 mg/m3 - Notes: (I, H), A4 - URT irr
ACGIH - TWA(8h): 25 ppm - STEL: 50 ppm - Notes: (V), A4 - URT irr
MAK - TWA(8h): 26 mg/m3, 10 ppm - STEL: 52 mg/m3, 20 ppm - Notes: SWISS

(2-methoxymethylethoxy)propanol - CAS: 34590-94-8
EU - TWA(8h): 308 mg/m3, 50 ppm - Notes: Skin
ACGIH - TWA(8h): 100 ppm - STEL: 150 ppm - Notes: Skin - Eye and URT irr, CNS impair
MAK - TWA(8h): 300 mg/m3, 50 ppm - STEL: 300 mg/m3, 50 ppm - Notes: SWISS

DNEL Exposure Limit Values

dimethyl ether - CAS: 115-10-6
Worker Professional: 1894 mg/m3 - Consumer: 471 - Exposure: Human Inhalation - Frequency: Long Term, systemic effects

propan-2-ol; isopropyl alcohol; isopropanol - CAS: 67-63-0
Worker Industry: 500 mg/m3 - Worker Professional: 500 mg/m3 - Consumer: 89 mg/m3 - Exposure: Human Inhalation - Frequency: Long Term, systemic effects
Worker Industry: 888 mg/kg - Worker Professional: 888 mg/kg - Consumer: 319 mg/kg - Exposure: Human Dermal - Frequency: Long Term, systemic effects
Consumer: 26 mg/kg - Exposure: Human Oral - Frequency: Long Term, systemic effects

2-butoxyethanol; ethylene glycol monobutyl ether - CAS: 111-76-2
Worker Industry: 89 mg/kg - Consumer: 89 mg/kg - Exposure: Human Dermal - Frequency: Short Term, systemic effects
Worker Industry: 1091 mg/m3 - Consumer: 426 mg/m3 - Exposure: Human Inhalation - Frequency: Short Term, systemic effects
Worker Industry: 246 mg/m3 - Exposure: Human Inhalation - Frequency: Short Term, local effects
Worker Industry: 125 mg/kg - Consumer: 75 mg/kg - Exposure: Human Dermal - Frequency: Long Term, systemic effects
Worker Industry: 98 mg/m3 - Consumer: 59 mg/m3 - Exposure: Human Inhalation - Frequency: Long Term, systemic effects
Consumer: 147 mg/m3 - Exposure: Human Inhalation - Frequency: Long Term, local effects
Consumer: 26.7 mg/kg - Exposure: Human Oral - Frequency: Short Term, systemic effects
Consumer: 6.3 mg/kg - Exposure: Human Oral - Frequency: Long Term, systemic effects

ethanediol; ethylene glycol - CAS: 107-21-1
Worker Professional: 35 mg/m3 - Consumer: 7 mg/m3 - Exposure: Human Inhalation - Frequency: Long Term, local effects

Worker Professional: 106 mg/kg - Consumer: 53 mg/kg - Exposure: Human Dermal - Frequency: Long Term, systemic effects

(2-methoxymethylethoxy)propanol - CAS: 34590-94-8

Consumer: 1.67 mg/kg - Exposure: Human Oral - Frequency: Long Term, systemic effects

Worker Professional: 310 mg/m3 - Consumer: 37.2 mg/m3 - Exposure: Human Inhalation - Frequency: Long Term, systemic effects

Worker Professional: 65 mg/kg - Consumer: 15 mg/kg - Exposure: Human Dermal - Frequency: Long Term, systemic effects

PNEC Exposure Limit Values

dimethyl ether - CAS: 115-10-6

Target: Fresh Water - Value: 0.155 mg/l
Target: Marine water - Value: 0.016 mg/l
Target: Soil (agricultural) - Value: 0.045 mg/kg
Target: Freshwater sediments - Value: 0.681 mg/kg
Target: Marine water sediments - Value: 0.069 mg/kg

propan-2-ol; isopropyl alcohol; isopropanol - CAS: 67-63-0

Target: Food chain - Value: 160 mg/kg
Target: Fresh Water - Value: 140.9 mg/l
Target: Marine water - Value: 140.9 mg/l
Target: Freshwater sediments - Value: 552 mg/kg
Target: Soil (agricultural) - Value: 28 mg/kg

2-butoxyethanol; ethylene glycol monobutyl ether - CAS: 111-76-2

Target: Freshwater sediments - Value: 34.6 mg/kg
Target: Marine water sediments - Value: 3.46 mg/kg
Target: Soil (agricultural) - Value: 2.8 mg/kg
Target: Fresh Water - Value: 8.8 mg/l
Target: Marine water - Value: 0.88 mg/l

ethanediol; ethylene glycol - CAS: 107-21-1

Target: Fresh Water - Value: 10 mg/l
Target: Marine water - Value: 1 mg/l
Target: Freshwater sediments - Value: 37 mg/kg
Target: Soil (agricultural) - Value: 1.53 mg/kg

(2-methoxymethylethoxy)propanol - CAS: 34590-94-8

Target: Fresh Water - Value: 19 mg/l
Target: Marine water - Value: 1.9 mg/l
Target: Freshwater sediments - Value: 7.02 mg/kg
Target: Microorganisms in sewage treatments - Value: 4168 mg/l
Target: Soil (agricultural) - Value: 2.74 mg/kg

8.2. Exposure controls

Eye protection:

Use close fitting safety goggles, don't use eye lens.

Protection for skin:

Use clothing that provides comprehensive protection to the skin, e.g. cotton, rubber, PVC or viton.

Protection for hands:

Use protective gloves that provides comprehensive protection, e.g. P.V.C., neoprene or rubber.

Respiratory protection:

Not needed for normal use.

Thermal Hazards:

None

Environmental exposure controls:

None

Appropriate engineering controls:

None

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Properties	**Value**	**Method:**	**Notes:**
Appearance and colour:	Aerosol	--	--
Odour:	Slight ethereal	--	--
Odour threshold:	N.A.	--	--
pH:	N.A.	--	--
Melting point / freezing point:	N.A.	--	--
Initial boiling point and boiling range:	N.A.	--	--
Flash point:	< 0 °C	--	--
Evaporation rate:	N.A.	--	--
Gas flammability:	<- 40 °C	--	--
Upper/lower flammability or explosive limits:	3.0 ÷ 18.6 % Vol.	--	--
Vapour pressure:	3.6 bar +/- 0. 5 20 °C	--	--
Vapour density:	>1 (air=1)	--	--
Relative density:	0.77 +/- 0.05	--	--
Solubility in water:	YES	--	--
Solubility in oil:	N.A.	--	--
Partition coefficient (n-octanol/water):	N.A.	--	--
Auto-ignition temperature:	>220 °C	--	--
Decomposition temperature:	N.A.	--	--
Viscosity:	N.A.	--	--
Explosive properties:	N.A.	--	--
Oxidizing properties:	N.A.	--	--

9.2. Other information

Properties	Value	Method:	Notes:
Miscibility:	N.A.	--	--
Fat Solubility:	N.A.	--	--
Conductivity:	N.A.	--	--
Deformation Pressure:	15 bar	--	--
Explosion Pressure:	16 ÷ 20 bar	--	--
Volatile organic compounds - VOC	555 g/l	--	--
Volatile organic compounds - VOC	72 %	--	--
Substance Groups relevant properties	N.A.	--	--

SECTION 10: Stability and reactivity

10.1. Reactivity
Stable under normal conditions
10.2. Chemical stability
Stable under normal conditions
10.3. Possibility of hazardous reactions
None
10.4. Conditions to avoid
Stable under normal conditions.
10.5. Incompatible materials
Avoid contact with combustible materials. The product could catch fire.
10.6. Hazardous decomposition products
None.

SECTION 11: Toxicological information

11.1. Information on toxicological effects
Toxicological information of the product:
WATER-BASED PAINT
a) acute toxicity
Not classified
Based on available data, the classification criteria are not met
b) skin corrosion/irritation
Not classified
Based on available data, the classification criteria are not met
c) serious eye damage/irritation
The product is classified: Eye Irrit. 2 H319
d) respiratory or skin sensitisation
Not classified
Based on available data, the classification criteria are not met
e) germ cell mutagenicity
Not classified
Based on available data, the classification criteria are not met
f) carcinogenicity

Not classified
Based on available data, the classification criteria are not met
g) reproductive toxicity
Not classified
Based on available data, the classification criteria are not met
h) STOT-single exposure
Not classified
Based on available data, the classification criteria are not met
i) STOT-repeated exposure
Not classified
Based on available data, the classification criteria are not met
j) aspiration hazard
Not classified
Based on available data, the classification criteria are not met

Toxicological information of the main substances found in the product:

dimethyl ether - CAS: 115-10-6
a) acute toxicity:
Test: LC50 - Route: Inhalation - Species: Rat = 309018 mg/m3 - Duration: 4h

propan-2-ol; isopropyl alcohol; isopropanol - CAS: 67-63-0
a) acute toxicity:
Test: LD50 - Route: Oral - Species: Rat = 5840 mg/kg
Test: LD50 - Route: Skin - Species: Rabbit = 13900 ml/kg
Test: LC50 - Route: Inhalation - Species: Rat > 25000 mg/m3 - Duration: 8h
b) skin corrosion/irritation:
Test: Skin Irritant - Species: Rabbit No
c) serious eye damage/irritation:
Test: Eye Irritant - Species: Rabbit Yes
g) reproductive toxicity:
Test: Reproductive Toxicity - Route: Oral - Species: Rabbit = 480 mg/kg

2-butoxyethanol; ethylene glycol monobutyl ether - CAS: 111-76-2
a) acute toxicity:
Test: LC50 - Route: Inhalation - Species: Rat = 20 ppm - Duration: 4h
Test: LD50 - Route: Oral - Species: Rat = 1746 mg/kg
Test: LD50 - Route: Skin - Species: Rabbit > 2000 mg/kg

ethanediol; ethylene glycol - CAS: 107-21-1
a) acute toxicity:
Test: LC50 - Route: Inhalation - Species: Rat > 2.5 mg/l - Duration: 8h

(2-methoxymethylethoxy)propanol - CAS: 34590-94-8
a) acute toxicity:
Test: LD50 - Route: Oral - Species: Rat > 5000 mg/kg
Test: LD50 - Route: Skin - Species: Rabbit = 13000 mg/kg

SECTION 12: Ecological information

12.1. Toxicity

Adopt good working practices, so that the product is not released into the environment.

WGK: 1

WATER-BASED PAINT
Not classified for environmental hazards
Based on available data, the classification criteria are not met

dimethyl ether - CAS: 115-10-6
a) Aquatic acute toxicity:
Endpoint: LC50 - Species: Fish > 4100 mg/l - Duration h: 96 - Notes: (NEN 6504)
Endpoint: EC50 - Species: Algae = 154.9 mg/l - Duration h: 96 - Notes: (ECOSAR v1.00)

propan-2-ol; isopropyl alcohol; isopropanol - CAS: 67-63-0

a) Aquatic acute toxicity:
Endpoint: LC50 - Species: Fish = 9640 mg/l - Duration h: 96
Endpoint: EC50 - Species: Daphnia > 10000 mg/l - Duration h: 24
c) Bacteria toxicity:
Endpoint: EC50 = 1050 mg/l
e) Plant toxicity:
Endpoint: EC50 - Species: Algae > 1800 mg/l - Duration h: 168

2-butoxyethanol; ethylene glycol monobutyl ether - CAS: 111-76-2
a) Aquatic acute toxicity:
Endpoint: EC50 - Species: Daphnia = 1550 mg/l - Duration h: 48
Endpoint: EC50 - Species: Algae = 911 mg/l - Duration h: 72
Endpoint: LC50 - Species: Fish = 1474 mg/l - Duration h: 96
b) Aquatic chronic toxicity:
Endpoint: NOEC - Species: Fish > 100 mg/l - Notes: 21 d
Endpoint: NOEC - Species: Daphnia = 100 mg/l - Notes: 21 d

ethanediol; ethylene glycol - CAS: 107-21-1
a) Aquatic acute toxicity:
Endpoint: LC50 - Species: Fish = 72860 mg/l - Duration h: 96
Endpoint: EC50 - Species: Daphnia > 100 mg/l - Duration h: 48
b) Aquatic chronic toxicity:
Endpoint: NOEC - Species: Fish = 15830 mg/l - Notes: 7 days
Endpoint: NOEC - Species: Daphnia = 8590 mg/l - Notes: 7 days

(2-methoxymethylethoxy)propanol - CAS: 34590-94-8
a) Aquatic acute toxicity:
Endpoint: LC50 - Species: Fish > 10000 mg/l - Duration h: 96

12.2. Persistence and degradability
None
dimethyl ether - CAS: 115-10-6
Biodegradability: Non-readily biodegradable
propan-2-ol; isopropyl alcohol; isopropanol - CAS: 67-63-0
Biodegradability: Readily biodegradable
2-butoxyethanol; ethylene glycol monobutyl ether - CAS: 111-76-2
Biodegradability: Readily biodegradable
ethanediol; ethylene glycol - CAS: 107-21-1
Biodegradability: Readily biodegradable
(2-methoxymethylethoxy)propanol - CAS: 34590-94-8
Biodegradability: Readily biodegradable

12.3. Bioaccumulative potential
2-butoxyethanol; ethylene glycol monobutyl ether - CAS: 111-76-2
Test: Kow - Partition coefficient 0.81 - Notes: 1-OCTANOL/WATER

12.4. Mobility in soil
N.A.

12.5. Results of PBT and vPvB assessment
vPvB Substances: None - PBT Substances: None

12.6. Other adverse effects
None

SECTION 13: Disposal considerations

13.1. Waste treatment methods
Recover, if possible. Send to authorised disposal plants or for incineration under controlled conditions. In so doing, comply with the local and national regulations currently in force.

Additional disposal information:
WASTE CODE = 160504

SECTION 14: Transport information

14.1. UN number

ADR-UN number:	1950
IATA-Un number:	1950
IMDG-Un number:	1950

14.2. UN proper shipping name

ADR-Shipping Name:	AEROSOLS
IATA-Technical name:	AEROSOLS, flammable
IMDG-Technical name:	AEROSOLS

14.3. Transport hazard class(es)

ADR-Class:	2 - 5F
ADR-Label:	2.1
IATA-Class:	2.1
IATA-Label:	2.1
IMDG-Class:	2.1

14.4. Packing group

ADR-Packing Group:	-
IATA-Packing group:	-
IMDG-Packing group:	-

14.5. Environmental hazards

Marine pollutant:	No

14.6. Special precautions for user

ADR-Tunnel Restriction Code:	D
ADR-Limited Quantity (LQ):	1 L
IATA-Passenger Aircraft:	Forbidden
IATA-Cargo Aircraft:	203
IMDG-Technical name:	AEROSOLS
IMDG-EMS:	F-D S-U

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code
N.A.

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture
Dir. 98/24/EC (Risks related to chemical agents at work)
Dir. 2000/39/EC (Occupational exposure limit values)
Regulation (EC) n. 1907/2006 (REACH)
Regulation (EC) n. 1272/2008 (CLP)
Regulation (EC) n. 790/2009 (ATP 1 CLP) and (EU) n. 758/2013
Regulation (EU) 2015/830
Regulation (EU) n. 286/2011 (ATP 2 CLP)
Regulation (EU) n. 618/2012 (ATP 3 CLP)
Regulation (EU) n. 487/2013 (ATP 4 CLP)
Regulation (EU) n. 944/2013 (ATP 5 CLP)
Regulation (EU) n. 605/2014 (ATP 6 CLP)
Regulation (EU) n. 2015/1221 (ATP 7 CLP)
Regulation (EU) n. 2016/918 (ATP 8 CLP)
Regulation (EU) n. 2016/1179 (ATP 9 CLP)
Regulation (EU) n. 2017/776 (ATP 10 CLP)

Restrictions related to the product or the substances contained according to Annex XVII Regulation (EC) 1907/2006 (REACH) and subsequent modifications:
Restrictions related to the product:
Restriction 3
Restriction 40
Restrictions related to the substances contained:
No restriction.

Where applicable, refer to the following regulatory provisions :
Directive 2012/18/EU (Seveso III)

Regulation (EC) nr 648/2004 (detergents).
Dir. 2004/42/EC (VOC directive)

Provisions related to directive EU 2012/18 (Seveso III):
Seveso III category according to Annex 1, part 1
Product belongs to category: P3a

15.2. Chemical safety assessment
No Chemical Safety Assessment has been carried out for the mixture.
Substances for which a Chemical Safety Assessment has been carried out:
dimethyl ether
propan-2-ol; isopropyl alcohol; isopropanol
2-butoxyethanol; ethylene glycol monobutyl ether
ethanediol; ethylene glycol

15.3. VOC

Volatile organic compounds - VOCs = 555 g/l
Volatile organic compounds - VOCs = 72 %

SECTION 16: Other information

Full text of phrases referred to in Section 3:
H220 Extremely flammable gas.
H280 Contains gas under pressure; may explode if heated.
H225 Highly flammable liquid and vapour.
H319 Causes serious eye irritation.
H336 May cause drowsiness or dizziness.
H315 Causes skin irritation.
H302 Harmful if swallowed.
H312 Harmful in contact with skin.
H332 Harmful if inhaled.
H314 Causes severe skin burns and eye damage.
H400 Very toxic to aquatic life.
H335 May cause respiratory irritation.
H373 May cause damage to organs through prolonged or repeated exposure.
H318 Causes serious eye damage.
H317 May cause an allergic skin reaction.
H412 Harmful to aquatic life with long lasting effects.

Hazard class and hazard category	**Code**	**Description**
Flam. Gas 1	2.2/1	Flammable gas, Category 1
Aerosols 1	2.3/1	Aerosol, Category 1
Press. Gas	2.5	Gases under pressure
Flam. Liq. 2	2.6/2	Flammable liquid, Category 2
Acute Tox. 4	3.1/4/Dermal	Acute toxicity (dermal), Category 4
Acute Tox. 4	3.1/4/Inhal	Acute toxicity (inhalation), Category 4
Acute Tox. 4	3.1/4/Oral	Acute toxicity (oral), Category 4
Skin Corr. 1B	3.2/1B	Skin corrosion, Category 1B

Skin Irrit. 2	3.2/2	Skin irritation, Category 2
Eye Dam. 1	3.3/1	Serious eye damage, Category 1
Eye Irrit. 2	3.3/2	Eye irritation, Category 2
Skin Sens. 1B	3.4.2/1B	Skin Sensitisation, Category 1B
STOT SE 3	3.8/3	Specific target organ toxicity - single exposure, Category 3
STOT RE 2	3.9/2	Specific target organ toxicity - repeated exposure, Category 2
Aquatic Acute 1	4.1/A1	Acute aquatic hazard, category 1
Aquatic Chronic 3	4.1/C3	Chronic (long term) aquatic hazard, category 3

Paragraphs modified from the previous revision:

SECTION 2: Hazards identification
SECTION 3: Composition/information on ingredients
SECTION 8: Exposure controls/personal protection
SECTION 9: Physical and chemical properties
SECTION 11: Toxicological information
SECTION 12: Ecological information
SECTION 13: Disposal considerations
SECTION 15: Regulatory information
SECTION 16: Other information

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

Classification according to Regulation (EC) Nr. 1272/2008	**Classification procedure**
Aerosols 1, H222+H229	On basis of test data
Eye Irrit. 2, H319	Calculation method

This document was prepared by a competent person who has received appropriate training.
Main bibliographic sources:

ECDIN - Environmental Chemicals Data and Information Network - Joint Research Centre, Commission of the European Communities
SAX's DANGEROUS PROPERTIES OF INDUSTRIAL MATERIALS - Eight Edition - Van Nostrand Reinold

The information contained herein is based on our state of knowledge at the above-specified date. It refers solely to the product indicated and constitutes no guarantee of particular quality.
It is the duty of the user to ensure that this information is appropriate and complete with respect to the specific use intended.
This MSDS cancels and replaces any preceding release.

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.
ATE: Acute Toxicity Estimate
ATEmix: Acute toxicity Estimate (Mixtures)

CAS:	Chemical Abstracts Service (division of the American Chemical Society).
CLP:	Classification, Labeling, Packaging.
DNEL:	Derived No Effect Level.
EINECS:	European Inventory of Existing Commercial Chemical Substances.
GefStoffVO:	Ordinance on Hazardous Substances, Germany.
GHS:	Globally Harmonized System of Classification and Labeling of Chemicals.
IATA:	International Air Transport Association.
IATA-DGR:	Dangerous Goods Regulation by the "International Air Transport Association" (IATA).
ICAO:	International Civil Aviation Organization.
ICAO-TI:	Technical Instructions by the "International Civil Aviation Organization" (ICAO).
IMDG:	International Maritime Code for Dangerous Goods.
INCI:	International Nomenclature of Cosmetic Ingredients.
KSt:	Explosion coefficient.
LC50:	Lethal concentration, for 50 percent of test population.
LD50:	Lethal dose, for 50 percent of test population.
PNEC:	Predicted No Effect Concentration.
RID:	Regulation Concerning the International Transport of Dangerous Goods by Rail.
STEL:	Short Term Exposure limit.
STOT:	Specific Target Organ Toxicity.
TLV:	Threshold Limiting Value.
TWA:	Time-weighted average
WGK:	German Water Hazard Class.