

SAFETY DATA SHEET

FRIGILENE COLOURLESS

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

1.1. Product identifier

Product name FRIGILENE COLOURLESS
Product No. 165596, 65150, SDS

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

Identified uses A preparation intended for use in industrial surface finishing. Solvent based lacquer

1.3. Details of the supplier of the safety data sheet

Supplier MacDermid Limited
198 Golden Hillock Road
Birmingham
B11 2PN
Tel: +44 (0) 121 606 8100

Contact Person sdsuk@macdermid.com

1.4. Emergency telephone number

24 Hour Emergency Incident Number +44 (0)1235 239 670 - NCEC (National Chemical Emergency Centre)

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Classification (EC 1272/2008)

Physical and Chemical Hazards Flam. Liq. 2 - H225
Human health Acute Tox. 4 - H332; Skin Irrit. 2 - H315; Eye Dam. 1 - H318; STOT SE 3 - H336, H335; STOT RE 2 - H373
Environment Not classified.

Classification (1999/45/EEC)

Xn; R20/21, R48/20. Xi; R36/37/38. F; R11.

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

2.2. Label elements

Contains XYLENE

Label In Accordance With (EC) No. 1272/2008



Signal Word

Danger

Hazard Statements

H225	Highly flammable liquid and vapour.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H373	May cause damage to organs through prolonged or repeated exposure.

Precautionary Statements

P210	Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P243	Take precautionary measures against static discharge.
P260	Do not breathe vapour/spray.

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P280	Wear protective clothing, gloves, eye and face protection.
P303+361+353	IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304+340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305+351+338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P315	Get immediate medical advice/attention.

Supplementary Precautionary Statements

P240	Ground/bond container and receiving equipment.
P241	Use explosion-proof electrical equipment.
P242	Use only non-sparking tools.
P332+313	If skin irritation occurs: Get medical advice/attention.
P370+378	In case of fire: Use foam, carbon dioxide, dry powder or water fog for extinction.
P403+233	Store in a well-ventilated place. Keep container tightly closed.
P501a	Dispose of contents/container in accordance with local, regional, national and/or international regulations

2.3. Other hazards

This product does not contain any PBT or vPvB substances.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2. Mixtures

BUTYL ACETATE -norm	40 - <60%
CAS-No.: 123-86-4	EC No.: 204-658-1
Classification (EC 1272/2008) Flam. Liq. 3 - H226 EUH066 STOT SE 3 - H336	Classification (67/548/EEC) R10 R66 R67
XYLENE	25 - <40%
CAS-No.: 1330-20-7	EC No.: 215-535-7
Classification (EC 1272/2008) Flam. Liq. 3 - H226 Acute Tox. 4 - H312 Acute Tox. 4 - H332 Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 STOT SE 3 - H335 STOT RE 2 - H373 Asp. Tox. 1 - H304	Classification (67/548/EEC) Xn;R20/21,R65,R48/20. Xi;R36/37/38. R10.
Butan-1-ol	1 - <10%
CAS-No.: 71-36-3	EC No.: 200-751-6
Classification (EC 1272/2008) Flam. Liq. 3 - H226 Acute Tox. 4 - H302 Skin Irrit. 2 - H315 Eye Dam. 1 - H318 STOT SE 3 - H335 STOT SE 3 - H336	Classification (67/548/EEC) R10 Xn;R22 Xi;R37/38,R41 R67

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Nitrocellulose		1 - <10%
CAS-No.: 9004-70-0	EC No.:	
Classification (EC 1272/2008) Flam. Sol. 1 - H228	Classification (67/548/EEC) F;R11.	

PROPAN-2-OL		1 - <5%
CAS-No.: 67-63-0	EC No.: 200-661-7	Registration Number: 01-2119457558-25
Classification (EC 1272/2008) Flam. Liq. 2 - H225 Eye Irrit. 2 - H319 STOT SE 3 - H336	Classification (67/548/EEC) F;R11 Xi;R36 R67	

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

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

General information

Remove affected person from source of contamination. CAUTION! First aid personnel must be aware of own risk during rescue! NOTE! Keep affected person away from heat, sparks and flames! NOTE! Effects may be delayed. Keep affected person under observation.

Inhalation

Move the exposed person to fresh air at once. Rinse nose and mouth with water. When breathing is difficult, properly trained personnel may assist affected person by administering oxygen. Get medical attention if any discomfort continues.

Ingestion

Promptly get affected person to drink large volumes of water to dilute the swallowed chemical. Rinse nose, mouth and throat with water. Do not induce vomiting. If vomiting occurs, the head should be kept low so that stomach vomit doesn't enter the lungs. NEVER MAKE AN UNCONSCIOUS PERSON VOMIT OR DRINK FLUIDS! Get medical attention immediately!

Skin contact

Remove contaminated clothing. Wash skin with soap and water. Get medical attention if any discomfort continues.

Eye contact

Promptly wash eyes with plenty of water while lifting the eye lids. Make sure to remove any contact lenses from the eyes before rinsing. Continue to rinse for at least 15 minutes and get medical attention. Immediately transport to hospital or eye specialist.

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

General information

See section 11 for more detailed information on health effects and symptoms. Prolonged exposure to the preparation may cause serious health effects. Prolonged and repeated contact with solvents over a long period may lead to permanent health problems.

Inhalation

Vapours irritate the respiratory system, and may cause coughing and difficulties in breathing. Spray mists irritate the respiratory system, and cause coughing and difficulties in breathing. May cause damage to mucous membranes in nose, throat, lungs and bronchial system. Drowsiness, dizziness, disorientation, vertigo. In case of overexposure, organic solvents may depress the central nervous system causing dizziness and intoxication, and at very high concentrations unconsciousness and death.

Ingestion

May irritate and cause stomach pain, vomiting and diarrhoea. May cause discomfort if swallowed. May cause nausea, headache, dizziness and intoxication. May cause liver and/or renal damage. Pneumonitis (inflammation of lung tissue).

Skin contact

Irritating to skin. Prolonged contact may cause redness, irritation and dry skin. Defatting, drying and cracking of skin. May be absorbed through the skin.

Eye contact

Extreme irritation of eyes and mucous membranes, including burning and tearing. Irritation, burning, lachrymation, blurred vision after liquid splash. Contact with concentrated chemical may very rapidly cause severe eye damage, possibly loss of sight. Risk of corneal damage.

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

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No specific first aid measures noted.

SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing media

Extinguishing media

Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water fog. Use fire-extinguishing media appropriate for surrounding materials.

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

Hazardous combustion products

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

Unusual Fire & Explosion Hazards

Beware, risk of formation of toxic and corrosive gases. HIGHLY FLAMMABLE! Heat may cause the containers to explode. Vapours are heavier than air and may spread near ground to sources of ignition. May travel considerable distance to source of ignition and flash back. Vapour explosion and poison hazard indoors, outdoors and in sewers. May produce dense black smoke.

Specific hazards

The product is highly flammable, and explosive vapours/air mixtures may be formed even at normal room temperatures. Fire or high temperatures create: Nitrous gases (NOx).

5.3. Advice for firefighters

Special Fire Fighting Procedures

Avoid breathing fire vapours. Keep up-wind to avoid fumes. Ventilate closed spaces before entering them. Be aware of danger of explosion. Use water to keep fire exposed containers cool and disperse vapours. Cool containers exposed to flames with water until well after the fire is out. Keep run-off water out of sewers and water sources. Dike for water control. If risk of water pollution occurs, notify appropriate authorities.

Protective equipment for fire-fighters

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

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Wear protective clothing as described in Section 8 of this safety data sheet. Avoid inhalation of vapours/spray and contact with skin and eyes. Eye contact MUST be prevented by means of suitable personal protection equipment. In case of inadequate ventilation, use respiratory protection. Ensure suitable personal protection (including respiratory protection) during removal of spillages in a confined area. In case of spills, beware of slippery floors and surfaces.

6.2. Environmental precautions

Collect and dispose of spillage as indicated in section 13. Do not discharge into drains, water courses or onto the ground. Avoid release to the environment. Do not allow ANY environmental contamination. Never use water by itself on spillage; this will spread the spill and cause further contamination.

6.3. Methods and material for containment and cleaning up

Wear necessary protective equipment. Stop leak if possible without risk. To prevent release, place container with damaged side up. Extinguish all ignition sources. Avoid sparks, flames, heat and smoking. Ventilate. Take precautionary measures against static discharges. Absorb spillage with non-combustible, absorbent material. Collect spillage in containers, seal securely and deliver for disposal according to local regulations. Containers with collected spillage must be properly labelled with correct contents and hazard symbol. Runoff or release to sewer, waterway or ground is forbidden. Inform Authorities if large amounts are involved. Contaminated rags and cloths must be put in fireproof containers for disposal.

6.4. Reference to other sections

Wear protective clothing as described in Section 8 of this safety data sheet. Collect and dispose of spillage as indicated in section 13.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

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Do not handle broken packages without protective equipment. Avoid inhalation of vapours/spray and contact with skin and eyes. Eye contact MUST be prevented by means of suitable personal protection equipment. Use mechanical ventilation in case of handling which causes formation of vapours. Keep away from heat, sparks and open flame. Eliminate all sources of ignition. Static electricity and formation of sparks must be prevented. Avoid contact with strong oxidisers. Do not use in confined spaces without adequate ventilation and/or respirator. Contaminated rags and cloths must be put in fireproof containers for disposal. Do not eat, drink or smoke when using the product. Observe good chemical hygiene practices.

7.2. Conditions for safe storage, including any incompatibilities

Store in tightly closed original container in a dry, cool and well-ventilated place. Keep separate from food, feedstuffs, fertilisers and other sensitive material. Protect from freezing. Flammable/combustible - Keep away from oxidisers, heat and flames. Take precautionary measures against static discharges. Do not store near heat sources or expose to high temperatures.

Storage Class

Flammable liquid storage.

7.3. Specific end use(s)

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

Min. Storage Temp (°C) 5

Max. Storage Temp (°C) 40

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Name	STD	TWA - 8 Hrs		STEL - 15 Min		Notes
Butan-1-ol	WEL			50 ppm	154 mg/m ³	Sk
BUTYL ACETATE -norm	WEL	150 ppm	724 mg/m ³	200 ppm	966 mg/m ³	
PROPAN-2-OL	WEL	400 ppm	999 mg/m ³	500 ppm	1250 mg/m ³	
XYLENE	WEL	50 ppm	220 mg/m ³	100 ppm	441 mg/m ³	Sk

WEL = Workplace Exposure Limit.

Sk = Can be absorbed through skin.

FRIGILENE COLOURLESS**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

REACH dossier information

PNEC

Freshwater	140.9	mg/l
Marinewater	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

REACH dossier information

BUTYL ACETATE -norm (CAS: 123-86-4)**DNEL**

Industry	Inhalation.	Short Term	Systemic Effects	960 mg/m3
Industry	Inhalation.	Short Term	Local Effects	960 mg/m3
Industry	Inhalation.	Long Term	Systemic Effects	480 mg/m3
Industry	Inhalation.	Long Term	Local Effects	480 mg/m3

REACH dossier information

PNEC

Freshwater	0.18	mg/l
Marinewater	0.018	mg/l
Intermittent release	0.36	mg/l
STP	35.6	mg/l
Sediment (Freshwater)	0.981	mg/kg
Sediment (Marinewater)	0.0981	mg/kg
Soil	0.0903	mg/kg

REACH dossier information

XYLENE (CAS: 1330-20-7)**DNEL**

Industry	Inhalation.	Short Term	Systemic Effects	289 mg/m3
Industry	Inhalation.	Short Term	Local Effects	289 mg/m3
Industry	Dermal	Long Term	Systemic Effects	180 mg/kg/day
Industry	Inhalation.	Long Term	Systemic Effects	77 mg/m3

REACH dossier information

PNEC

Freshwater	0.327	mg/l
Marinewater	0.327	mg/l
Intermittent release	0.327	mg/l
STP	6.58	mg/l
Sediment (Freshwater)	12.46	mg/kg
Sediment (Marinewater)	12.46	mg/kg
Soil	2.31	mg/kg

REACH dossier information

8.2. Exposure controls**Protective equipment****Process conditions**

Use engineering controls to reduce air contamination to permissible exposure level.

Engineering measures

Provide adequate ventilation, including appropriate local extraction, to ensure that the defined occupational exposure limit is not exceeded. Explosion-proof general and local exhaust ventilation. All handling to take place in well-ventilated area.

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Respiratory equipment

If ventilation is insufficient, suitable respiratory protection must be provided. At work in confined or poorly ventilated spaces, respiratory protection with air supply must be used. Seek advice from supervisor on the companies' respiratory protection standards.

Hand protection

Protective gloves must be used if there is a risk of direct contact or splash. Seek advice from local supervisor. Prolonged contact: (breakthrough time > 480 minutes). Polyethylene/Ethylene Vinyl Alcohol/Polyethylene (PE/EVAL/PE). (For material thickness = 0.5 mm minimum). Protective gloves should conform to EN 374. Be aware that the liquid may penetrate the gloves. Frequent change is advisable. The condition of gloves should be checked prior to each use. The selection of gloves should be made with consideration to working practises and the duration of exposure. Consideration should be given to other chemicals being handled and the working environment (e.g. sharps, fine work). Note: Observe manufacturers's recommendations, as the selection of suitable gloves does not only depend on glove material type, and permeability may vary between manufacturers.

Eye protection

Wear splash-proof eye goggles to prevent any possibility of eye contact. Contact lenses should not be worn when working with this chemical!

Other Protection

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

Hygiene measures

Wash promptly with soap & water if skin becomes contaminated. Promptly remove non-impervious clothing that becomes wet. Contaminated clothing to be placed in closed container until disposal or decontamination. Warn cleaning personnel of chemical's hazardous properties. Wash hands at the end of each work shift and before eating, smoking and using the toilet. **DO NOT SMOKE IN WORK AREA!** Eating, smoking and water fountains prohibited in immediate work area.

Environmental Exposure Controls

Keep container tightly sealed when not in use. Residues and empty containers should be taken care of as hazardous waste according to local and national provisions. Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Appearance	Clear liquid.
Colour	Yellowish / Straw.
Odour	Organic solvents.
Solubility	Immiscible with water
Initial boiling point and boiling range (°C)	> 35 °C (760 mm Hg)
Melting point (°C)	Not available.
Relative density	0.85 - 0.94 g/ml (20 °C)
Vapour density (air=1)	Not available.
Vapour pressure	Not available.
Evaporation rate	Not available.
pH-Value, Conc. Solution	Not applicable.
Viscosity	~ 100 cSt (20 °C)
Solubility Value (G/100G H2O@20°C)	Not available.
Decomposition temperature (°C)	Not available.
Odour Threshold, Lower	Not available.
Odour Threshold, Upper	Not available.
Flash point (°C)	15 °C CC (Closed cup).
Auto Ignition Temperature (°C)	Not available.

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Flammability Limit - Lower(%)

Not available.

Flammability Limit - Upper(%)

Not available.

**Partition Coefficient
(N-Octanol/Water)**

Not available.

Explosive properties

Not applicable.

Oxidising properties

Not applicable.

9.2. Other information**Volatile Organic Compound (VOC)** 94 %w/w

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity

Stable under normal temperature conditions and recommended use.

10.2. Chemical stability

Stable under normal temperature conditions and recommended use.

10.3. Possibility of hazardous reactions

Reacts violently with strong oxidising substances.

Hazardous Polymerisation

Will not polymerise.

10.4. Conditions to avoid

Avoid heat, flames and other sources of ignition. Take precautionary measures against static discharges. Do not store near heat sources or expose to high temperatures.

10.5. Incompatible materials**Materials To Avoid**

Strong oxidising substances.

10.6. Hazardous decomposition products

None under normal conditions. Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours. Fire or high temperatures create: Nitrous gases (NOx).

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects**Acute toxicity:**

Harmful if inhaled.

Skin Corrosion/Irritation:

Causes skin irritation.

Serious eye damage/irritation:

Causes serious eye damage.

Respiratory or skin sensitisation:

Does not contain any substances known to be sensitizing.

Germ cell mutagenicity:

Does not contain any substances known or suspected to be mutagenic.

Carcinogenicity:

FRIGILENE COLOURLESS

Does not contain any substances known or suspected to be carcinogenic.

Reproductive Toxicity:

Does not contain any substances known or suspected to be toxic to reproduction.

Specific target organ toxicity - single exposure:

May cause respiratory irritation. Respiratory irritant effects that impair function with symptoms such as cough, pain, choking, and breathing difficulties. May cause drowsiness or dizziness. Central nervous system depression including narcotic effects such as drowsiness, narcosis, reduced alertness, loss of reflexes, lack of coordination and vertigo.

Specific target organ toxicity - repeated exposure:

Target Organs

No specific target organs noted

Prolonged/repeated exposure may have specific toxic effect on organs. May cause damage to organs <<Organs>> through prolonged or repeated exposure.

Aspiration hazard:

Viscosity

Kinematic viscosity > 20.5 mm²/s.

Based on available data the classification criteria are not met.

Toxicological information on ingredients.

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XYLENE (CAS: 1330-20-7)

Acute toxicity:

Acute Toxicity (Oral LD50)

> 5250 mg/kg Mouse

REACH dossier information

Based on available data the classification criteria are not met.

Acute Toxicity (Dermal LD50)

12126 mg/kg Rabbit

REACH dossier information

Harmful in contact with skin.

Acute Toxicity (Inhalation LC50)

29 mg/l (vapours) Rat 4 hours

REACH dossier information

Harmful if inhaled.

Skin Corrosion/Irritation:

Causes skin irritation.

Serious eye damage/irritation:

Causes serious eye irritation.

Respiratory or skin sensitisation:

Based on available data the classification criteria are not met.

Germ cell mutagenicity:

This substance has no evidence of mutagenic properties.

Carcinogenicity:

This substance has no evidence of carcinogenic properties.

Reproductive Toxicity:

Does not contain any substances known to be toxic to reproduction.

Specific target organ toxicity - single exposure:

May cause respiratory irritation. Respiratory irritant effects that impair function with symptoms such as cough, pain, choking, and breathing difficulties.

Specific target organ toxicity - repeated exposure:

Target Organs

No specific target organs noted

May cause damage to organs <<Organs>> through prolonged or repeated exposure.

Aspiration hazard:

Viscosity

Kinematic viscosity <= 20.5 mm²/s.

REACH dossier information

May be fatal if swallowed and enters airways.

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity

The product is not expected to be hazardous to the environment. The product components are not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment. The product does not contain organically bound halogen.

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Ecological information on ingredients.

XYLENE (CAS: 1330-20-7)

Ecotoxicity

Based on available data the classification criteria are not met. The product is not expected to be hazardous to the environment.

12.1. Toxicity

Based on available data the classification criteria are not met.

Ecological information on ingredients.

XYLENE (CAS: 1330-20-7)

Acute Toxicity - Fish

LC50 96 hours 7.6 mg/l Onchorhynchus mykiss (Rainbow trout)

REACH dossier information

12.2. Persistence and degradability

Degradability

The product is expected to be biodegradable.

Ecological information on ingredients.

XYLENE (CAS: 1330-20-7)

Biodegradation

Water and Sediment Degradation ((of ThOD) 88%) 28 days

REACH dossier information

The substance is readily biodegradable.

12.3. Bioaccumulative potential

Bioaccumulative potential

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

Partition coefficient

Not available.

Ecological information on ingredients.

XYLENE (CAS: 1330-20-7)

Bioaccumulative potential

Will not bio-accumulate.

Partition coefficient

log Pow 3.15

12.4. Mobility in soil

Mobility:

The product contains volatile organic compounds (VOC) which will evaporate easily from all surfaces. The product is immiscible with water and will spread on the water surface.

Ecological information on ingredients.

XYLENE (CAS: 1330-20-7)

Mobility:

The product has poor water-solubility. The product contains volatile organic compounds (VOC) which will evaporate easily from all surfaces.

12.5. Results of PBT and vPvB assessment

This product does not contain any PBT or vPvB substances.

Ecological information on ingredients.

XYLENE (CAS: 1330-20-7)

Not Classified as PBT/vPvB by current EU criteria.

12.6. Other adverse effects

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None known.

Ecological information on ingredients.

XYLENE (CAS: 1330-20-7)

Not available.

SECTION 13: DISPOSAL CONSIDERATIONS

General information

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

13.1. Waste treatment methods

Environmental manager must be informed of all major spillages. Dispose of waste and residues in accordance with local authority requirements. Do not allow runoff to sewer, waterway or ground. Residues and empty containers should be taken care of as hazardous waste according to local and national provisions.

SECTION 14: TRANSPORT INFORMATION

14.1. UN number

UN No. (ADR/RID/ADN)	UN1263
UN No. (IMDG)	UN1263
UN No. (ICAO)	UN1263

14.2. UN proper shipping name

Proper Shipping Name	PAINT
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14.3. Transport hazard class(es)

ADR/RID/ADN Class	3
ADR/RID/ADN Class	Class 3: Flammable liquids.
IMDG Class	3
ICAO Class/Division	3
Transport Labels	



14.4. Packing group

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

14.5. Environmental hazards

Environmentally Hazardous Substance/Marine Pollutant
No.

14.6. Special precautions for user

IMDG Code Segregation Group	Not relevant
EMS	F-E, S-E

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Hazard No. (ADR) 33 Highly flammable liquid (flash-point below 23°C).

Tunnel Restriction Code (D/E)

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

Not relevant Material not supplied in bulk.

SECTION 15: REGULATORY INFORMATION

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

Statutory Instruments

The Chemicals (Hazard Information and Packaging for Supply) Regulations 2009 (S.I 2009 No. 716). Control of Substances Hazardous to Health.

Approved Code Of Practice

Safety Data Sheets for Substances and Preparations. Classification and Labelling of Substances and Preparations Dangerous for Supply.

Guidance Notes

Workplace Exposure Limits EH40.

EU Legislation

Dangerous Substance Directive 67/548/EEC. Dangerous Preparations Directive 1999/45/EC. Regulation (EC) No 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH). Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures (CLP), amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006. Regulation (EC) No 790/2009 amending, for the purposes of its adaptation to technical and scientific progress, Regulation (EC) No 1272/2008 of the European Parliament and of the Council on classification, labelling and packaging of substances and mixtures (CLP). Commission Regulation (EU) No 453/2010 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH). Regulation (EC) No 286/2011 amending Regulation (EC) No 1272/2008 of the European Parliament and of the Council on classification, labelling and packaging of substances and mixtures (CLP).

Authorisations (Title VII Regulation 1907/2006)

No specific authorisations are noted for this product.

Restrictions (Title VIII Regulation 1907/2006)

No specific restrictions of use are noted for this product.

Water hazard classification

WGK 2

15.2. Chemical Safety Assessment

No chemical safety assessment has been carried out.

SECTION 16: OTHER INFORMATION

General information

Physical data included in this SDS do not constitute the Product Specification -see separately supplied documentation. Supply classification prepared by calculation.

Revision Comments

NOTE: Lines within the margin indicate significant changes from the previous revision.

Revision Date 15/02/2016

Revision 2

Safety Data Sheet Status Approved.

Signature AA

FRIGILENE COLOURLESS

Risk Phrases In Full

R10	Flammable.
R20/21	Harmful by inhalation and in contact with skin.
R22	Harmful if swallowed.
R48/20	Harmful: danger of serious damage to health by prolonged exposure through inhalation.
R65	Harmful: may cause lung damage if swallowed.
R11	Highly flammable
R36/37/38	Irritating to eyes, respiratory system and skin.
R36	Irritating to eyes.
R37/38	Irritating to respiratory system and skin.
R66	Repeated exposure may cause skin dryness or cracking.
R41	Risk of serious damage to eyes.
R67	Vapours may cause drowsiness and dizziness.

Hazard Statements In Full

H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H226	Flammable liquid and vapour.
H228	Flammable solid.
H332	Harmful if inhaled.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H225	Highly flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
H373	May cause damage to organs <<Organs>> through prolonged or repeated exposure.
H336	May cause drowsiness or dizziness.
H335	May cause respiratory irritation.
EUH066	Repeated exposure may cause skin dryness or cracking.

Disclaimer

This information relates only to the specific material as supplied and may not be valid for such material if used in combination with any other material(s) or in any other process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. The data should not be construed as guaranteeing specific properties of the product described or its suitability for a particular application, nor does it make any warranty, either express or implied of merchantability for the product itself. It is the user's responsibility to satisfy himself as to the suitability and completeness of such information for his own particular use.