



SAFETY DATA SHEET

according to regulation (EU) No 2015/830

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

1.1. Product identifier

Trade name or designation of the mixture Flange Sealant - Anaerobic LP-IMP
Registration number -
Synonyms None.
SDS number 8060
Product code Ford Internal Ref.: 183588
Issue date 23-October-2014
Version number 3.0
Revision date 20-April-2016
Supersedes date 23-October-2014
Product use Professional use

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

Identified uses Sealers and Adhesives
Uses advised against None known.

1.3. Details of the supplier of the safety data sheet

Company name Ford Motor Company Ltd.
Address Parts Distribution Centre
Royal Oak Way South
NN11 8NT Daventry, Northants
United Kingdom
Telephone number +44 1327 305 198
Address Ford-Werke GmbH
Edsel-Ford-Str. 2-14
50769 Köln
Germany
Telephone number +49 221 90-33333
E-mail sdseu@ford.com
1.4 Emergency telephone number +49 (0) 6132-84463 (GBK GmbH – 24/7)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

The mixture has been assessed and/or tested for its physical, health and environmental hazards and the following classification applies.

Classification according to Regulation (EC) No 1272/2008 as amended

Health hazards

Skin corrosion/irritation	Category 2	H315 - Causes skin irritation.
Serious eye damage/eye irritation	Category 2	H319 - Causes serious eye irritation.
Skin sensitisation	Category 1A	H317 - May cause an allergic skin reaction.
Specific target organ toxicity - single exposure	Category 3 respiratory tract irritation	H335 - May cause respiratory irritation.

Environmental hazards

Hazardous to the aquatic environment, long-term aquatic hazard	Category 3	H412 - Harmful to aquatic life with long lasting effects.
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2.2. Label elements

Label according to Regulation (EC) No. 1272/2008 as amended

Contains: [2-[(2-methyl-1-oxoallyl)oxy]ethyl] hydrogen succinate, 2-hydroxyethyl methacrylate, 2-phenoxyethyl acrylate, 2'-phenylacetohydrazide, exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl methacrylate, Hydroxypropyl Methacrylate

Hazard pictograms



Signal word

Warning

Hazard statements

H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H335 May cause respiratory irritation.
H412 Harmful to aquatic life with long lasting effects.

Precautionary statements

Prevention

P261 Avoid breathing vapours.
P273 Avoid release to the environment.
P280 Wear protective gloves and eye/face protection.

Response

P337 + P313 If eye irritation persists: Get medical advice/attention.
P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
P333 + P313 If skin irritation or rash occurs: Get medical advice/attention.

Storage

None.

Disposal

None.

Supplemental label information None.

2.3. Other hazards The mixture contains no substance that fulfils the criteria of a PBT- or vPvB substance.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

General information

Chemical name	%	CAS-No. / EC No.	REACH Registration No.	Index No.	Notes
exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl methacrylate	10 - 20	7534-94-3 231-403-1	-	-	
Classification:	Skin Irrit. 2;H315, Eye Irrit. 2;H319, STOT SE 3;H335, Aquatic Chronic 2;H411				
2-hydroxyethyl methacrylate	5 - < 10	868-77-9 212-782-2	01-2119490169-29-XXXX	607-124-00-X	Note D
Classification:	Skin Irrit. 2;H315, Skin Sens. 1;H317, Eye Irrit. 2;H319				
2-phenoxyethyl methacrylate	5 - < 10	10595-06-9 234-201-1	-	-	
Classification:	Skin Irrit. 2;H315, Eye Irrit. 2;H319, Aquatic Chronic 3;H412				
2-phenoxyethyl acrylate	5 - < 10	48145-04-6 256-360-6	01-2119980532-35-XXXX	-	
Classification:	Skin Sens. 1A;H317, Aquatic Chronic 2;H411				

Chemical name	%	CAS-No. / EC No.	REACH Registration No.	Index No.	Notes
Cumene hydroperoxide	1 - < 2.5	80-15-9 201-254-7	-	617-002-00-8	STOT SE 3; H335: C < 10%, Eye Dam. 1; H318: 3% ≤ C < 10%, Skin Corr. 1B; H314: C ≥ 10%, Skin Irrit. 2; H315: 3% ≤ C < 10%, Eye Irrit. 2; H319: 1% ≤ C < 3%, Seveso P6b, E2, H2
Classification:	Org. Perox. E;H242, Acute Tox. 4;H302, Acute Tox. 4;H312, Skin Corr. 1B;H314, Acute Tox. 3;H331, STOT RE 2;H373, Aquatic Chronic 2;H411				
[2-[(2-methyl-1-oxoallyl)oxy]ethyl] hydrogen succinate	0.1 - < 1	20882-04-6 244-096-4	-	-	
Classification:	Skin Irrit. 2;H315, Skin Sens. 1;H317, Eye Dam. 1;H318				
2'-phenylacetohydrazide	0.1 - < 1	114-83-0 204-055-3	-	-	
Classification:	Acute Tox. 3;H301, Skin Irrit. 2;H315, Skin Sens. 1;H317, Eye Irrit. 2;H319, STOT SE 3;H335, Carc. 2;H351				
Acrylic acid	0.1 - < 1	79-10-7 201-177-9	01-2119452449-31-XXXX	607-061-00-8	Note D, STOT SE 3; H335: C ≥ 1%, Seveso P5a, P5b, P5c, E1
Classification:	Flam. Liq. 3;H226, Acute Tox. 4;H302, Acute Tox. 4;H312, Skin Corr. 1A;H314, Acute Tox. 4;H332, STOT SE 3;H335, Aquatic Acute 1;H400, Aquatic Chronic 2;H411				
Hydroxypropyl Methacrylate	0.1 - < 1	27813-02-1 248-666-3	01-2119490226-37-XXXX	-	Note D
Classification:	Skin Sens. 1;H317, Eye Irrit. 2;H319				
methacrylic acid	0.1 - < 1	79-41-4 201-204-4	01-2119463884-26-XXXX	607-088-00-5	Note D, STOT SE 3; H335: C ≥ 1%
Classification:	Acute Tox. 4;H302, Acute Tox. 3;H311, Skin Corr. 1A;H314, Acute Tox. 4;H332, STOT SE 3;H335				
1,4-naphthoquinone	0.01 - < 0.1	130-15-4 204-977-6	-	-	M (acute) = 10
Classification:	Acute Tox. 3;H301, Skin Irrit. 2;H315, Skin Sens. 1;H317, Eye Irrit. 2;H319, Acute Tox. 1;H330, STOT SE 3;H335, Aquatic Acute 1;H400, Aquatic Chronic 1;H410				

List of abbreviations and symbols that may be used above:

M: M-factor

Note: Regulation No. 1272/2008 - Annex VI

Composition comments The full text for all H-statements is displayed in section 16.

SECTION 4: First aid measures

General information If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Wash contaminated clothing before reuse.

4.1. Description of first aid measures

Inhalation	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTRE or doctor/physician if you feel unwell.
Skin contact	Remove contaminated clothing immediately and wash skin with soap and water. In case of eczema or other skin disorders: Seek medical attention and take along these instructions. Wash contaminated clothing before reuse.
Eye contact	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.
Ingestion	Rinse mouth. Drink 1 or 2 glasses of water. Get medical attention if symptoms occur.

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

Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision.
May cause respiratory irritation. Coughing. Skin irritation. May cause redness and pain. May cause an allergic skin reaction. Dermatitis. Rash.

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

Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.

SECTION 5: Firefighting measures

General fire hazards No unusual fire or explosion hazards noted.

5.1. Extinguishing media

Suitable extinguishing media Foam. Dry chemical powder. Carbon dioxide (CO₂).

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

During fire, gases hazardous to health may be formed.: Carbon monoxide, carbon dioxide and other hydrocarbon fragments. Carbon dioxide (CO₂).

5.3. Advice for firefighters

Special protective equipment for firefighters Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Special fire fighting procedures Move containers from fire area if you can do so without risk.

Specific methods

Use standard firefighting procedures and consider the hazards of other involved materials.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. Wear appropriate protective equipment and clothing during clean-up. Avoid breathing mist or vapour. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8.

For emergency responders Keep unnecessary personnel away. Use personal protection recommended in Section 8 of the SDS.

6.2. Environmental precautions

Avoid release to the environment. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground. Inform appropriate managerial or supervisory personnel of all environmental releases.

6.3. Methods and material for containment and cleaning up

The product is immiscible with water and will spread on the water surface.

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Absorb in vermiculite, dry sand or earth and place into containers. Prevent product from entering drains. Following product recovery, flush area with water.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use.

6.4. Reference to other sections

For personal protection, see section 8. For waste disposal, see section 13 of the SDS.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Avoid breathing mist or vapour. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. Provide adequate ventilation. Wear appropriate personal protective equipment. Avoid release to the environment.

Observe good industrial hygiene practices. Do not eat, drink or smoke when using the product. Wash hands after handling and before eating.

7.2. Conditions for safe storage, including any incompatibilities

Store locked up. Store in original tightly closed container. Do not return residual materials to containers as contamination may reduce the shelf life of the bulk product. Keep out of the reach of children. Do not return residual materials to containers as contamination may reduce the shelf life of the bulk product. Store away from incompatible materials (see Section 10 of the SDS). Storage temperature: between 8 °C (46,4 °F) and 21 °C (69,8 °F).

7.3. Specific end use(s) Not available.

SECTION 8: Exposure controls/personal protection**8.1. Control parameters****Occupational exposure limits****UK. EH40 Workplace Exposure Limits (WELs)**

Components	Type	Value
Cumene (CAS 98-82-8)	STEL	375 mg/m3 75 ppm
	TWA	125 mg/m3 25 ppm
methacrylic acid (CAS 79-41-4)	STEL	143 mg/m3 40 ppm
	TWA	72 mg/m3 20 ppm

EU. Indicative Exposure Limit Values in Directives 91/322/EEC, 2000/39/EC, 2006/15/EC, 2009/161/EU

Components	Type	Value
Cumene (CAS 98-82-8)	STEL	250 mg/m3 50 ppm
	TWA	100 mg/m3 20 ppm

Biological limit values No biological exposure limits noted for the ingredient(s).

Recommended monitoring procedures Follow standard monitoring procedures.

Derived no-effect level (DNEL)

Components	Type	Route	Value	Form
2-hydroxyethyl methacrylate (CAS 868-77-9)	Consumer	Dermal	0.83 mg/kg/BW/day	
		Inhalation	2.9 mg/m3	
		Oral	0.83 mg/kg/BW/day	
2-phenoxyethyl acrylate (CAS 48145-04-6)	Professional	Dermal	1.3 mg/kg/BW/day	
		Inhalation	4.9 mg/m3	
		Dermal	1.5 mg/kg/BW/day	
Acrylic acid (CAS 79-10-7)	Consumer	Inhalation	77 mg/m3	
		Inhalation	10 mg/m3	
		Dermal	1 mg/cm2	
Acrylic acid (CAS 79-10-7)	Professional	Inhalation	3.6 mg/m3	
		Inhalation	3.6 mg/m3	
		Dermal	1 mg/cm2	

Components	Type	Route	Value	Form
		Inhalation	30 mg/m3	
Comments:	Short term exposure - local effects			
		Inhalation	30 mg/m3	
Comments:	Long term exposure - local effects			
Hydroxypropyl Methacrylate (CAS 27813-02-1)	Consumer	Dermal	2.5 mg/kg/BW/day	
Comments:	Long term exposure systemic effects			
		Inhalation	8.8 mg/m3	
Comments:	Long term exposure systemic effects			
		Oral	2.5 mg/kg/BW/day	
Comments:	Long term exposure systemic effects			
	Professional	Dermal	4.2 mg/kg/BW/day	
Comments:	Long term exposure systemic effects			
		Inhalation	14.7 mg/m3	
Comments:	Long term exposure systemic effects			
methacrylic acid (CAS 79-41-4)	Consumer	Dermal	2.55 mg/kg/BW/day	
Comments:	Long term exposure systemic effects			
		Inhalation	6.55 mg/m3	-
Comments:	Long term exposure - local effects			
		Inhalation	6.3 mg/m3	
Comments:	Long term exposure systemic effects			
	Professional	Dermal	4.25 mg/kg/BW/day	
Comments:	Long term exposure systemic effects			
		Inhalation	88 mg/m3	-
Comments:	Long term exposure - local effects			
		Inhalation	29.6 mg/m3	
Comments:	Long term exposure systemic effects			

Predicted no effect concentrations (PNECs)

Components	Type	Route	Value	Form
2-hydroxyethyl methacrylate (CAS 868-77-9)	Not applicable	Freshwater	0.482 mg/l	
		Seawater	0.482 mg/l	
		Sediment	3.79 mg/kg	
Comments:	Seawater			
		Sediment	3.79 mg/kg	
Comments:	Fresh water			
		Soil	0.476 mg/kg	
		STP	10 mg/l	
		Water	1 mg/l	
Comments:	Intermittent release			
2-phenoxyethyl acrylate (CAS 48145-04-6)	Not applicable	Freshwater	2 µg/l	
		Seawater	0.2 µg/l	
		Sediment	0.02 mg/kg	
Comments:	Freshwater			
		Sediment	0.002 mg/kg	
Comments:	Seawater			
		Soil	0.006 mg/kg	
		STP	1.77 mg/l	
		Water	0.0121 mg/l	
Comments:	Intermittent release			
Acrylic acid (CAS 79-10-7)	Not applicable	Freshwater	0.003 mg/l	
		Oral	30 mg/kg	
Comments:	food, predators			
		Seawater	0 mg/l	
		Sediment	0.024 mg/kg	
Comments:	Freshwater			
		Sediment	0.002 mg/kg	
Comments:	Seawater			

Components	Type	Route	Value	Form
		Soil	1 mg/kg	
		STP	0.9 mg/l	
		Water	0.001 mg/l	
Comments:	Intermittent release			
Hydroxypropyl Methacrylate (CAS 27813-02-1)	Not applicable	Freshwater	0.904 mg/l	
		Seawater	0.904 mg/l	
		Sediment	6.28 mg/kg	
Comments:	Seawater			
		Sediment	6.28 mg/kg	
Comments:	Freshwater			
		Soil	0.727 mg/kg	
		STP	10 mg/l	
		Water	0.972 mg/l	
Comments:	Intermittent release			
methacrylic acid (CAS 79-41-4)	Not applicable	Freshwater	0.82 mg/l	
		Seawater	0.82 mg/l	
		Soil	1.2 mg/kg	
		STP	10 mg/l	
		Water	0.82 mg/l	
Comments:	Intermittent release			

8.2. Exposure controls

Appropriate engineering controls

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eye wash facilities and emergency shower must be available when handling this product.

Individual protection measures, such as personal protective equipment

General information

Use personal protective equipment as required. Personal protection equipment should be chosen according to the CEN standards and in discussion with the supplier of the personal protective equipment.

Eye/face protection

Wear safety glasses with side shields (or goggles).

Skin protection

- Hand protection

Wear protective gloves.
Nitrile rubber

Glove thickness 0,4 mm.
Break through time >= 480 min.

Glove recommendation: Camatril Velours® 730 (Kächele-Cama GmbH, source of supply see www.kcl.de) or comparable product.

Hand protection in case of splash contact:
Nitrile rubber

Glove thickness 0,4 mm.
Break through time >= 480 min.

Glove recommendation: Camatril Velours® 730 (Kächele-Cama GmbH, source of supply see www.kcl.de) or comparable product.

The protective gloves to be used must comply with the specification of EU directive 89/686/EC and the resultant standard EN374. The above given information is based on laboratory test in line with EN374. The recommendation is only valid for the supplied product and the stated application. Special working conditions, like heat or mechanical strain, which deviate from the test conditions, can reduce the protective effect provided by the recommended glove.

- Other

Wear appropriate chemical resistant clothing.

Respiratory protection

In case of insufficient ventilation, wear suitable respiratory equipment. Chemical respirator with organic vapour cartridge. Filter A (organic gases and vapours) to standard DIN EN 141.

Thermal hazards

Wear appropriate thermal protective clothing, when necessary.

Hygiene measures

Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Contaminated work clothing should not be allowed out of the workplace.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance

Physical state	Liquid.
Form	Liquid. Viscous.
Colour	Red.
Odour	Mild.
Odour threshold	Not available.
pH	Not available.
Melting point/freezing point	Not available.
Initial boiling point and boiling range	Not available.
Flash point	> 110.0 °C (> 230.0 °F) Setflash Closed cup
Evaporation rate	Not available.
Flammability (solid, gas)	Not available.
Upper/lower flammability or explosive limits	
Flammability limit - lower (%)	Not available.
Flammability limit - upper (%)	Not available.
Vapour pressure	Not available.
Vapour density	Not available.
Relative density	Not available.
Solubility(ies)	
Solubility (water)	Insoluble
Solubility (other)	Acetone Soluble
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	Not available.
Explosive properties	Not available.
Oxidising properties	Not available.

9.2. Other information

VOC (EU)	< 3 %
VOC (CH)	< 3 %

SECTION 10: Stability and reactivity

10.1. Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
10.2. Chemical stability	Material is stable under normal conditions.
10.3. Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
10.4. Conditions to avoid	Contact with incompatible materials.
10.5. Incompatible materials	Strong oxidising agents.
10.6. Hazardous decomposition products	Irritating and/or toxic fumes and gases may be emitted upon the products decomposition.

SECTION 11: Toxicological information

General information	Occupational exposure to the substance or mixture may cause adverse effects.
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Information on likely routes of exposure

Inhalation	May cause irritation to the respiratory system. Prolonged inhalation may be harmful.
Skin contact	Causes skin irritation. May cause an allergic skin reaction.
Eye contact	Causes serious eye irritation.

Ingestion	May cause discomfort if swallowed.
Symptoms	Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. May cause respiratory irritation. Skin irritation. May cause redness and pain. May cause an allergic skin reaction. Dermatitis. Rash.

11.1. Information on toxicological effects

Product	Species	Test results
Flange Sealant - Anaerobic LP-IMP		
<u>Acute</u>		
Dermal		> 5000 mg/kg (calcd. ATE)
Inhalation		> 20 mg/l/4h (calcd. ATE)
Oral		> 5000 mg/kg (calcd. ATE)
Components	Species	Test results
1,4-naphthoquinone (CAS 130-15-4)		
<u>Acute</u>		
Inhalation		
<i>Vapour</i>		0.05 mg/l/4h (acc.CLP 3.1.2)
Oral		100 mg/kg (acc.CLP 3.1.2)
2'-phenylacetohydrazide (CAS 114-83-0)		
<u>Acute</u>		
Oral		100 mg/kg (acc.CLP 3.1.2)
Cumene hydroperoxide (CAS 80-15-9)		
<u>Acute</u>		
Dermal		1100 mg/kg (acc.CLP 3.1.2)
Inhalation		
<i>Vapour</i>		3 mg/l/4h (acc.CLP 3.1.2)
Oral		
LD50	Rat	550 mg/kg
methacrylic acid (CAS 79-41-4)		
<u>Acute</u>		
Dermal		300 mg/kg (acc.CLP 3.1.2)
Inhalation		
		11 mg/l/4h (acc. CLP 3.1.2)
Oral		
LD50	Rat	1320 mg/kg (OECD 401)
Skin corrosion/irritation	Causes skin irritation.	
Serious eye damage/eye irritation	Causes serious eye irritation.	
Respiratory sensitisation	Based on available data, the classification criteria are not met.	
Skin sensitisation	May cause an allergic skin reaction.	
Germ cell mutagenicity	Based on available data, the classification criteria are not met.	
Carcinogenicity	Based on available data, the classification criteria are not met.	
Reproductive toxicity	Based on available data, the classification criteria are not met.	
Specific target organ toxicity - single exposure	May cause respiratory irritation.	

Specific target organ toxicity - repeated exposure	Based on available data, the classification criteria are not met.
Aspiration hazard	Not available.
Mixture versus substance information	No information available.
Other information	Not available.

SECTION 12: Ecological information

12.1. Toxicity Harmful to aquatic life with long lasting effects.

Components	Species	Test results
1,4-naphthoquinone (CAS 130-15-4)		
Algae	EC50 Dunaliella bioculata	0.011 mg/l, 72 hours (OECD 201)
2-phenoxyethyl acrylate (CAS 48145-04-6)		
Aquatic		
<i>Acute</i>		
Crustacea	EC50 Daphnia magna	1.21 mg/l, 48 h (OECD 202)
Fish	LC50 Leuciscus idus	10 mg/l, 96 h (OECD 203)
Acrylic acid (CAS 79-10-7)		
<i>Acute</i>		
Algae	EC50 Scenedesmus subspicatus	0.13 mg/l, 72 hours (OECD 201)
<i>Chronic</i>		
Algae	EC10 Scenedesmus subspicatus	0.03 mg/l, 72 hours
Aquatic		
<i>Acute</i>		
Fish	LC50 Salmo gairdneri (new name Oncorhynchus mykiss)	27 mg/l, 96 hours (EPA OTS 797.1400)
<i>Chronic</i>		
Crustacea	NOEC Daphnia magna	19 mg/l, 21 days (EPA OTS 797.1330)
exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl methacrylate (CAS 7534-94-3)		
<i>Acute</i>		
Fish	LC50 Fish	1.79 mg/l, 96 hours (OECD 203)
Aquatic		
<i>Acute</i>		
Algae	EC50 Algae	2.66 mg/l, 96 hours (OECD 201)
Crustacea	EC50 Daphnia magna	1.1 mg/l, 48 hours (OECD 202)

12.2. Persistence and degradability No data is available on the degradability of this product.

Biodegradability

Percent degradation (Aerobic biodegradation)

2-phenoxyethyl acrylate	22.3 % (OECD 301 D) Test Duration: 28 days
Acrylic acid	81 % (OECD 301 D) Test Duration: 22 days
exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl methacrylate	26.8 % (OECD 301 D)

12.3. Bioaccumulative potential

Partition coefficient n-octanol /water (log Kow)

Acrylic acid	0.46
exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl methacrylate	5.09 (OECD 117)
methacrylic acid	0.93

Bioconcentration factor (BCF)

Acrylic acid	3.16
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12.4. Mobility in soil No data available.

12.5. Results of PBT and vPvB assessment The mixture contains no substance that fulfils the criteria of a PBT- or vPvB substance.

12.6. Other adverse effects No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this product.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Residual waste	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
Contaminated packaging	Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.
EU waste code	The Waste code should be assigned in discussion between the user, the producer and the waste disposal company. 08 04 09 15 01 10
Disposal methods/information	Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.
Special precautions	Dispose in accordance with all applicable regulations.

SECTION 14: Transport information

ADR

Not regulated as dangerous goods.

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

SECTION 15: Regulatory information

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

EU regulations

Not applicable.

Restrictions on use

Not applicable.

Other regulations

This Safety Data Sheet complies with the requirements of Regulation (EC) No 2015/830.

Other EU regulations

Directive 94/33/EC on the protection of young people at work, as amended

1,4-naphthoquinone (CAS 130-15-4)
2-hydroxyethyl methacrylate (CAS 868-77-9)
2'-phenylacetohydrazide (CAS 114-83-0)
Acrylic acid (CAS 79-10-7)
Cumene hydroperoxide (CAS 80-15-9)
methacrylic acid (CAS 79-41-4)

Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work, as amended

2-hydroxyethyl methacrylate (CAS 868-77-9)
Acrylic acid (CAS 79-10-7)
Cumene (CAS 98-82-8)
Cumene hydroperoxide (CAS 80-15-9)
exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl methacrylate (CAS 7534-94-3)
methacrylic acid (CAS 79-41-4)

VOC (EU): < 3 %

Directive 2012/18/EU on major accident hazards involving dangerous substances

Not applicable

National regulations

Young people under 18 years old are not allowed to work with this product according to EU Directive 94/33/EC on the protection of young people at work. Follow national regulation for work with chemical agents.

15.2. Chemical safety assessment

No Chemical Safety Assessment has been carried out.

SECTION 16: Other information

List of abbreviations

AC: Article category.
acc., acc.to: according, according to.
ACGIH: American Conference of Governmental Industrial Hygienists.
AFNOR: French Institute for Standards (Association Française de Normalisation).
ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways (Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieures).
ADR: European agreement concerning the international carriage of dangerous goods by road (Accord européen relatif transport des marchandises dangereuses par route).
AGW: Occupational threshold limit value (Arbeitsplatzgrenzwert – Germany).
AICS: Australian Inventory of Chemical Substances.
ANSI: American National Standards Institute.
AOEL: Acceptable Operator Exposure Level.
AOX: adsorbable organic halogen compounds.
approx.: approximately.
ASTM: ASTM International.
ATE: Acute Toxicity Estimate according to REGULATION (EC) No 1272/2008 (CLP).
BAM: Federal Institute for Materials Research and Testing, Germany (Bundesanstalt für Materialforschung und -prüfung).
Maximum permissible concentration of biological working substances (BAT: Biologische Arbeitsstofftoleranzwerte).
BAuA: Federal Institute for Occupational Health and Safety, Germany (Bundesanstalt für Arbeitsschutz und Arbeitsmedizin).
BCF: Bio-concentration factor.
BET: Brunauer-Emmett-Teller.
BLV: Biological Limit Value.
BLV: Biological Limit Value (BGW: Biologischer Grenzwert, Austria).
BMGV: Biological Monitoring Guidance Value (EH40,UK).
BSI: British Standards Institution.
BS: British Standard.
BOD5: Biochemical oxygen demand within 5 days.
BOD: Biochemical oxygen demand.
bw: Body weight.
calcd.: calculated.
CAS: Chemical Abstract Service.
CEN: European Committee for Standardization (Comité Européen de Normalisation).
CESIO: European Committee on Organic Surfactants and their Intermediates (Comité Européen des Agents de Surface et de leurs Intermédiaires Organiques).
ChemRRV: Ordinance on the risk reduction related to chemical products (ChemRRV: Chemikalien-Risikoreduktions-verordnung, Switzerland).
CLP: Classification, Labeling and Packaging REGULATION (EC) No 1272/2008 on classification, labeling and packaging of substances and mixtures.
CMR: Substances classified as Carcinogenic, Mutagenic or toxic for Reproduction.
CNS: Central Nervous System.
CNT: Carbon nanotubes.
COD: Chemical Oxygen Demand.
CSA: Chemical Safety Assessment.
CSR: Chemical Safety Report.
DETEC: Swiss Federal Department of the Environment, Transport, Energy and Communications.
DIN: German Standards Institute / German industrial norm (Deutsches Institut für Normung / Deutsche Industrienorm).
DMEL: Derived Minimum Effect Level.
DNEL: Derived No Effect Level.
DOC: Dissolved organic carbon.
DPD: Directive 1999-45-EC / Dangerous Preparations Directive.
DSD: Directive 67/548-EC / Dangerous Substances Directive.
DSL: Canada, Domestic Substances List.
DU: Downstream User.
dw: dry weight.
e.g.: For example, for instance.
EBW: Exposure Based Waiving.
EC: European Community.
EC50: Effective Concentration 50%.
ECHA: European Chemical Agency.
EINECS: European Inventory of Existing Commercial Chemical Substances.
ELINCS: European List of Notified Chemical Substances.
EN: European norm.
ENCS: Japan, Inventory of Existing and New Chemical Substances.
EPA: United States Environmental Protection Agency.

ERC: Environmental release category.
 ES: Exposure scenario.
 EUSES: European Union System for the Evaluation of Substances.
 EWC/EWL: European Waste Catalogue.
 GCL: General concentration limit.
 gen.: general.
 GHS: Globally Harmonized System of Classification and Labeling of Chemicals.
 GLP: Good Laboratory Practice.
 GW/VL: Occupational exposure limit value.
 GW-kw: Occupational exposure limit value - short term.
 GW-M/VL-M: Occupational exposure limit value – "Ceiling".
 GWP: Global Warming Potential.
 HPV: High Production Volume Chemicals.
 HEPA: High Efficiency Particulate Air.
 IARC: International Agency for Research on Cancer.
 IATA: International Air Transport Association.
 IBC: Intermediate Bulk Container.
 IBC Code: International Bulk Chemical (Code) (International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk).
 ICAO: International Civil Aviation Organization.
 IC50: Inhibition Concentration 50%.
 IECSC: Inventory of Existing Chemical Substances in China.
 IMDG Code: International Maritime Dangerous Goods Code.
 IMO: International Maritime Organization.
 incl.: including, inclusive.
 ISO: International Standards Organization.
 IUCLID: International Uniform Chemical Information Database.
 IUPAC: International Union for Pure Applied Chemistry.
 KECI: Korea Existing Chemicals Inventory.
 LCA: Life Cycle Assessment.
 LC: Lethal Concentration.
 LC50: Lethal Concentration 50%.
 LCLo: Lowest published lethal concentration.
 LD50: Lethal Dose 50%.
 LEV: Local exhaust ventilation.
 LOAEL: Lowest observed adverse effect level.
 LOEC: Lowest observable effect concentration.
 LOEL: Lowest observable effect level.
 LPV: Low Production Volume Chemicals.
 LQ: Limited Quantities.
 Air Quality Control Regulation (LRV: Luftreinhalteverordnung, Switzerland).
 TLV-STEL: Threshold limit value - Short-term exposure limit / Technical reference concentration - short-time value (TRK-Kzw = Technische Richtkonzentration - Kurzzeitwert).
 Maximum allowable workplace concentration – instantaneous value (MAK-Mow: Maximale Arbeitsplatzkonzentration – Momentanwert, Austria)
 Maximum allowable workplace concentration – daily mean value / Technical standard concentration – daily mean value (MAK-Tmw, TRK-Tmw : Maximale Arbeitsplatzkonzentration - Tagesmittelwert / TRK-Tmw = Technische Richtkonzentration – Tagesmittelwert, Austria).
 MAK: Threshold limit values Germany (Maximale Arbeitsplatzkonzentration - DFG).
 MARPOL: International Convention for the Prevention of Pollution From Ships.
 MTD: Maximum tolerated dose.
 MWCNT: Multi-walled carbon nanotubes.
 n.a.: not applicable.
 N/A: Not available.
 n.d.: not determined.
 NLP: No Longer Polymers.
 NDSL: Canada, Non-Domestic Substances List.
 NF: French Norm (See AFNOR).
 NFPA: National Fire Protection Association.
 NIOSH: National Institute for Occupational Safety & Health.
 NOAEC: No Observed Adverse Effect Concentration.
 NOAEL: No observed adverse effect level.
 NOEC: No observed effect concentration.
 NOEL: No observed effect level.
 NTP: National Toxicology Program.
 NZIoC: New Zealand Inventory of Chemicals.
 ODP: Ozone Depletion Potential.
 OECD: Organization for Economic Cooperation and Development.

OEL: Occupational Exposure Limit.
 org.: organic.
 OSHA: Occupational Safety & Health Administration.
 PAH: Polycyclic Aromatic Hydrocarbons.
 PBT: Persistent, bioaccumulative, toxic.
 PC: Product category.
 PE: Polyethylene.
 PEC: Predicted Environmental Concentration.
 PEL: Permissible Exposure Limit.
 PIC: Prior Informed Consent.
 PICCS: Philippines Inventory of Commercial Chemical Substances.
 PNEC: Predicted No Effect Concentration.
 POCP: Photochemical ozone creation potential (Photochemisches Ozonbildungspotenzial).
 POP: Persistent Organic Pollutant.
 PPORD: Product and Process Oriented Research and Development.
 PPE: Personal Protective Equipment.
 PROC: Process category.
 RA: Risk Assessment.
 RAR: Risk Assessment Report.
 RCRA: Resource Conservation Recovery Act.
 REACH: Registration, Evaluation and Authorization of Chemicals (REGULATION (EC) No 1907/2006 concerning Registration, Evaluation Authorization and Restriction of Chemicals).
 RID: Regulations concerning the international carriage of dangerous goods by rail (Règlement International concernant le transport de marchandises dangereuses par chemin de fer).
 RMM: Risk Management Measure.
 RTECS: Registry of Toxic Effects of Chemical Substances.
 QSAR: Quantitative Structure Activity Relation.
 SARA: Superfund Amendments and Reauthorization Act.
 SADT: Self-Accelerating Decomposition Temperature.
 SCL: Specific concentration limit.
 SEA: socio economic analysis.
 STEL: Short-term Exposure Limit.
 STP: Sewage treatment plant.
 SU: Sector of use.
 SVHC: Substance of Very High Concern.
 SWCNT: single-walled carbon nanotubes.
 ThOD: Theoretical oxygen demand.
 TOC: Total Organic Carbon.
 TLV: Threshold Limit Value.
 TRA: Targeted Risk Assessment.
 TSCA: Toxic Substance Control Act.
 TWA: Time Weighted Average.
 UC: Use category.
 UDS: Use descriptor system.
 UEC: Use and exposure categories.
 UN: United Nations.
 UN RTDG: United Nations Recommendations on the Transport of Dangerous Goods.
 UVCB: Unknown or Variable Composition, Complex Reaction Products, and Biological Materials. Regulation on combustible liquids (VbF: Verordnung über brennbare Flüssigkeiten, Austria). Regulation of the Austria Minister for Labor and Social Affairs regarding health surveillance at the workplace (VGÜ = Verordnung des Bundesministers für Arbeit und Soziales über die Gesundheitsüberwachung am Arbeitsplatz).
 VOC: Volatile organic compounds.
 vPvB: very Persistent, very Bioaccumulative.
 WEL-TWA: Workplace Exposure Limit-Long term exposure limit (8-hour TWA(=time weighted average)reference period).
 WEL-STEL: Workplace Exposure Limit-Short term exposure limit (15-minute reference period).
 WoE: Weight of evidence.
 WHMIS: Workplace Hazardous Materials Information System.
 WHO: World Health Organization.
 wwt: wet weight.
 Not available.

References

Information on evaluation method leading to the classification of mixture

The classification for health and environmental hazards is derived by a combination of calculation methods and test data, if available.

**Full text of any H-statements
not written out in full under
Sections 2 to 15**

H226 Flammable liquid and vapour.
H242 Heating may cause a fire.
H301 Toxic if swallowed.
H302 Harmful if swallowed.
H311 Toxic in contact with skin.
H312 Harmful in contact with skin.
H314 Causes severe skin burns and eye damage.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.
H319 Causes serious eye irritation.
H330 Fatal if inhaled.
H331 Toxic if inhaled.
H332 Harmful if inhaled.
H335 May cause respiratory irritation.
H351 Suspected of causing cancer.
H373 May cause damage to organs through prolonged or repeated exposure.
H400 Very toxic to aquatic life.
H410 Very toxic to aquatic life with long lasting effects.
H411 Toxic to aquatic life with long lasting effects.
H412 Harmful to aquatic life with long lasting effects.

Revision information

This document has undergone significant changes and should be reviewed in its entirety.

Training information

Follow training instructions when handling this material.

Disclaimer

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

Attachment to the Safety Data Sheet



Product Name: Flange Sealant - Anaerobic LP-IMP
Ford Int. Ref. No.: 183588

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Print Date: 20.04.2016

Involved Products:

	Finiscode	Part number	Container Size:
1.	1 761 780	BU7J M2G348 AA	50 ml