



Safety Data Sheet
According to EC Regulation 1907/2006
(REACH) & 1272/2008 (CLP) & 453/2010/
Version 2

Revision: 20/06/2019

IKO ARMOURPLAN Seam Sealant

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

1.1. Product identifier

Product name ArmourPlan Seam Sealant
Product number 48003000
Product UFI 7N7H-AAEG-HF4Q-QXFD

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

Identified uses Adhesive.
Uses advised against No specific uses advised against are identified.

1.3. Details of the supplier of the safety data sheet

Supplier IKO PLC
 Appley Lane North
 Appley Bridge
 Wigan
 Lancashire
 WN6 9AB

 uktechnical@iko.com

1.4. Emergency telephone number

Emergency telephone +44 (0) 1257 256864 Opening Times: 0900 - 1700 Monday to Friday

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification

Physical hazards Flam. Liq. 2 - H225
Health hazards Acute Tox. 4 - H332 Eye Irrit. 2 - H319 Carc. 2 - H351 STOT SE 3 - H335
Environmental hazards Not Classified

Physicochemical

The product is highly flammable. Vapours may form explosive mixtures with air. Vapours are heavier than air and may travel along the floor and accumulate in the bottom of containers. Vapours may be ignited by a spark, a hot surface or an ember.

2.2. Label elements

Pictogram



Signal word

Danger



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Hazard statements	H225 Highly flammable liquid and vapour. H319 Causes serious eye irritation. H332 Harmful if inhaled. H335 May cause respiratory irritation. H351 Suspected of causing cancer.
Precautionary statements	P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P280 Wear protective gloves/protective clothing/eye protection/face protection. P260 Do not breathe dust/fume/gas/mist/vapours/spray. P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P308+P313 IF exposed or concerned: Get medical advice/attention. P403+P233 Store in a well-ventilated place. Keep container tightly closed. P501 Dispose of contents/container in accordance with national regulations.
Contains	TETRAHYDROFURAN
Supplementary precautionary statements	P201 Obtain special instructions before use. P202 Do not handle until all safety precautions have been read and understood. P240 Ground/bond container and receiving equipment. P241 Use explosion-proof electrical equipment. P242 Use only non-sparking tools. P243 Take precautionary measures against static discharge. P261 Avoid breathing vapour/spray. P264 Wash contaminated skin thoroughly after handling. P271 Use only outdoors or in a well-ventilated area. P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing. P312 Call a POISON CENTER/doctor if you feel unwell. P337+P313 If eye irritation persists: Get medical advice/attention. P370+P378 In case of fire: Use foam, carbon dioxide, dry powder or water fog to extinguish. P403+P235 Store in a well-ventilated place. Keep cool. P405 Store locked up.

2.3. Other hazards

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

SECTION 3: Composition/information on ingredients

3.2. Mixtures

TETRAHYDROFURAN	60-100%
CAS number: 109-99-9	EC number: 203-726-8
	REACH registration number: 01-2119444314-46-0000
Classification	
Flam. Liq. 2 - H225	
Acute Tox. 4 - H302	
Acute Tox. 4 - H312	
Acute Tox. 4 - H332	
Eye Irrit. 2 - H319	
Carc. 2 - H351	
STOT SE 3 - H335	

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CYCLOHEXANONE 1-5% CAS number: 108-94-1 EC number: 203-631-1
Classification Flam. Liq. 3 - H226 Acute Tox. 4 - H332
PHENOL <1% CAS number: 108-95-2 EC number: 203-632-7
Classification Skin Corr. 1B - H314 Muta. 2 - H341 Acute Tox. 3 - H301 Acute Tox. 3 - H311 Acute Tox. 3 - H331 STOT RE 2 - H373 Eye Dam. 1 - H318

The Full Text for all Hazard Statements are Displayed in Section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information	Get medical attention if any discomfort continues.
Inhalation	Remove affected person from source of contamination. Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing.
Ingestion	Rinse mouth thoroughly with water. Get medical attention.
Skin contact	Remove contaminated clothing immediately and wash skin with soap and water.
Eye contact	Rinse immediately with plenty of water. Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes. Get medical attention immediately.

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

General information	The severity of the symptoms described will vary dependent on the concentration and the length of exposure.
Inhalation	Vapours may cause headache, fatigue, dizziness and nausea.
Ingestion	May cause discomfort if swallowed. May cause stomach pain or vomiting.
Skin contact	Prolonged skin contact may cause redness and irritation.
Eye contact	May cause temporary eye irritation.

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

Notes for the doctor	No specific recommendations. If in doubt, get medical attention promptly.
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SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	Use fire-extinguishing media suitable for the surrounding fire. Extinguish with alcohol-resistant foam, carbon dioxide or dry powder.
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Unsuitable extinguishing media Do not use water jet as an extinguisher, as this will spread the fire.

5.2. Special hazards arising from the substance or mixture

Specific hazards The product is flammable. Heating may generate flammable vapours. Protection against nuisance dust must be used when the airborne concentration exceeds 10 mg/m³. The product is highly flammable.

Hazardous combustion products Does not decompose when used and stored as recommended.

5.3. Advice for firefighters

Protective actions during firefighting Control run-off water by containing and keeping it out of sewers and watercourses. Avoid breathing fire gases or vapours. Keep up-wind to avoid fumes.

Special protective equipment for firefighters Wear chemical protective suit.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions Wear protective clothing as described in Section 8 of this safety data sheet.

6.2. Environmental precautions

Environmental precautions Spillages or uncontrolled discharges into watercourses must be reported immediately to the Environmental Agency or other appropriate regulatory body. Do not discharge into drains or watercourses or onto the ground.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up Eliminate all sources of ignition. No smoking, sparks, flames or other sources of ignition near spillage. Provide adequate ventilation. Absorb in vermiculite, dry sand or earth and place into containers.

6.4. Reference to other sections

Reference to other sections Wear protective clothing as described in Section 8 of this safety data sheet. For waste disposal, see section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Usage precautions Keep away from heat, sparks and open flame. Static electricity and formation of sparks must be prevented. Good personal hygiene procedures should be implemented. Wash hands and any other contaminated areas of the body with soap and water before leaving the work site.

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions Keep away from heat, sparks and open flame. Keep container tightly closed. Keep only in the original container.

Storage class Flammable liquid storage.

7.3. Specific end use(s)

Specific end use(s) The identified uses for this product are detailed in Section 1.2.

SECTION 8: Exposure Controls/personal protection

8.1. Control parameters

Occupational exposure limits

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TETRAHYDROFURAN

Long-term exposure limit (8-hour TWA): WEL 50 ppm(Sk) 150 mg/m³(Sk)
 Short-term exposure limit (15-minute): WEL 100 ppm(Sk) 300 mg/m³(Sk)

CYCLOHEXANONE

Long-term exposure limit (8-hour TWA): WEL 10 ppm(Sk)
 Short-term exposure limit (15-minute): WEL 20 ppm(Sk)

PHENOL

Long-term exposure limit (8-hour TWA): WEL 2 ppm(Sk)
 Short-term exposure limit (15-minute): WEL

WEL = Workplace Exposure Limit

Ingredient comments WEL = Workplace Exposure Limits

TETRAHYDROFURAN (CAS: 109-99-9)

DNEL Workers - Dermal; Short term systemic effects: 25 mg/kg bw/day
 Workers - Inhalation; Long term systemic effects: 150 mg/m³
 Workers - Inhalation; Long term local effects: 150 mg/m³

PNEC - Fresh water; 4.32 mg/l
 - Marine water; 0.432 mg/l
 - Intermittent release; 21.6 mg/l
 - Sediment; 23.3 mg/kg
 - Soil; 2.13 mg/kg
 - STP; 4.6 mg/l

8.2. Exposure controls

Protective equipment



Appropriate engineering controls Provide adequate ventilation. Avoid inhalation of vapours. Observe any occupational exposure limits for the product or ingredients.

Eye/face protection The following protection should be worn: Chemical splash goggles.

Hand protection Chemical-resistant, impervious gloves complying with an approved standard should be worn if a risk assessment indicates skin contact is possible. It is recommended that gloves are made of the following material: Nitrile rubber. It should be noted that liquid may penetrate the gloves. Frequent changes are recommended.

Other skin and body protection Wear appropriate clothing to prevent any possibility of liquid contact and repeated or prolonged vapour contact. Wear apron or protective clothing in case of contact.

Hygiene measures Use engineering controls to reduce air contamination to permissible exposure level. Provide eyewash station. Wash contaminated clothing before reuse. Wash hands after handling. Eating, smoking and water fountains prohibited in immediate work area.

Respiratory protection In confined or poorly-ventilated spaces, a supplied-air respirator must be worn. Wear a respirator fitted with the following cartridge: Gas filter, type AX.

Environmental exposure controls 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.

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SECTION 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Appearance	Coloured liquid.
Colour	Grey.
Odour	Characteristic.
Odour threshold	Not available.
pH	Not available.
Melting point	Not available.
Initial boiling point and range	Not determined.
Flash point	-14°C CC (Closed cup).
Evaporation rate	Not determined.
Evaporation factor	Not available.
Flammability (solid, gas)	Not available.
Other flammability	Not available.
Vapour pressure	Not available.
Vapour density	Not available.
Relative density	0.97 @ 20°C
Bulk density	Not available.
Solubility(ies)	Insoluble in water.
Partition coefficient	Not available.
Decomposition Temperature	Not available.
Viscosity	3000 cP @ 20°C
Explosive properties	Not available.
Explosive under the influence of a flame	Not considered to be explosive.
Oxidising properties	Not available.
Comments	Information given is applicable to the product as supplied.

9.2. Other information

Other information	No information required.
Refractive index	Not available.
Particle size	Not available.
Molecular weight	Not available.
Volatility	Not available.
Saturation concentration	Not available.
Critical temperature	Not available.
Volatile organic compound	This product contains a maximum VOC content of 776 g/l.

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SECTION 10: Stability and reactivity

10.1. Reactivity

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

10.2. Chemical stability

Stability No particular stability concerns. Stable at normal ambient temperatures and when used as recommended.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions Not applicable. Not relevant.

10.4. Conditions to avoid

Conditions to avoid Avoid heat, flames and other sources of ignition.

10.5. Incompatible materials

Materials to avoid Strong oxidising agents. Strong acids. Strong alkalis.

10.6. Hazardous decomposition products

Hazardous decomposition products Does not decompose when used and stored as recommended. Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours. Oxides of carbon. Oxides of nitrogen.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity - oral

ATE oral (mg/kg) 2,054.8

Acute toxicity - dermal

ATE dermal (mg/kg) 2,368.58

Acute toxicity - inhalation

ATE inhalation (vapours mg/l) 19.34

Toxicological information on ingredients.

TETRAHYDROFURAN

Acute toxicity - oral

Acute toxicity oral (LD₅₀ mg/kg) 1,650.0

Species Rat

Acute toxicity - dermal

Acute toxicity dermal (LD₅₀ mg/kg) 2,000.0

Species Rat

ATE dermal (mg/kg) 2,000.0

Acute toxicity - inhalation

Acute toxicity inhalation (LC₅₀ vapours mg/l) 14.7



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Species	Rat
ATE inhalation (vapours mg/l)	14.7

CYCLOHEXANONE

Acute toxicity - oral

Acute toxicity oral (LD ₅₀ mg/kg)	1,535.0
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Species	Rat
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ATE oral (mg/kg)	1,535.0
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Acute toxicity - dermal

Acute toxicity dermal (LD ₅₀ mg/kg)	948.0
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Species	Rabbit
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ATE dermal (mg/kg)	948.0
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Acute toxicity - inhalation

Acute toxicity inhalation (LC ₅₀ vapours mg/l)	8,000.0
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Species	Rat
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ATE inhalation (vapours mg/l)	8,000.0
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PHENOL

Acute toxicity - oral

Acute toxicity oral (LD ₅₀ mg/kg)	650.0
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Species	Rat
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ATE oral (mg/kg)	650.0
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Acute toxicity - dermal

Acute toxicity dermal (LD ₅₀ mg/kg)	707.0
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Species	Rat
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ATE dermal (mg/kg)	707.0
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Acute toxicity - inhalation

Acute toxicity inhalation (LC ₅₀ vapours mg/l)	0.9
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Species	Rat
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ATE inhalation (vapours mg/l)	0.9
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12.1. Toxicity

Ecological information on ingredients.

TETRAHYDROFURAN

Acute toxicity - fish	LC ₅₀ , 96 hours: 2160 mg/l, Fish
Acute toxicity - aquatic invertebrates	EC ₅₀ , 48 hours: 3485 ppm, Daphnia magna
Acute toxicity - aquatic plants	NOEC, 8 days: 3700 mg/l, Algae

PHENOL

Acute toxicity - fish	LC ₅₀ , 48 hours: 5.4 mg/l, Fish LC ₅₀ , 96 hours: 0.00175 mg/l, Cyprinus carpio (Common carp)
Acute toxicity - aquatic invertebrates	EC ₅₀ , 48 hours: 4.2 mg/l, Daphnia magna LC ₅₀ , 48 hours: 0.8 mg/l, Archaeomysis Kokuboi
Acute toxicity - aquatic plants	EC ₅₀ , 96 hours: 94 mg/l, Freshwater plants EC ₅₀ , 72 hours: 36 mg/l, Marinewater algae EC ₅₀ , 96 hours: 0.0611 mg/l, Pseudokirchneriella subcapitata
Chronic toxicity - fish early life stage	NOEC, 90 days: 0.118 mg/l, Onchorhynchus mykiss (Rainbow trout)
Chronic toxicity - aquatic invertebrates	NOEC, 21 days: 1.5 mg/l, Daphnia magna

12.2. Persistence and degradability

12.3. Bioaccumulative potential

Partition coefficient Not available.

Ecological information on ingredients.

TETRAHYDROFURAN

Bioaccumulative potential	BCF: 3.16,
Partition coefficient	log Kow: 0.45

PHENOL

Bioaccumulative potential	BCF: 647,
Partition coefficient	log Pow: 1.47

12.4. Mobility in soil

Mobility The product contains volatile organic compounds (VOCs) which will evaporate easily from all surfaces.

12.5. Results of PBT and vPvB assessment

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

12.6. Other adverse effects

Other adverse effects None known.

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SECTION 13: Disposal considerations

13.1. Waste treatment methods

General information	Waste should be treated as controlled waste. Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.
Disposal methods	Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

SECTION 14: Transport information

14.1. UN number

UN No. (ADR/RID)	1133
UN No. (IMDG)	1133
UN No. (ICAO)	1133
UN No. (ADN)	1133

14.2. UN proper shipping name

Proper shipping name (ADR/RID)	ADHESIVES
Proper shipping name (IMDG)	ADHESIVES
Proper shipping name (ICAO)	ADHESIVES
Proper shipping name (ADN)	ADHESIVES

14.3. Transport hazard class(es)

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

Transport labels



14.4. Packing group

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

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant
No.



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14.6. Special precautions for user

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

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

SECTION 15: Regulatory information

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

National regulations	Health and Safety at Work etc. Act 1974 (as amended). The Control of Substances Hazardous to Health Regulations 2002 (SI 2002 No. 2677) (as amended). The Chemicals (Hazard Information and Packaging for Supply) Regulations 2009 (SI 2009 No. 716). Control of Substances Hazardous to Health Regulations 2002 (as amended).
EU legislation	Commission Directive 91/322/EEC of 29 May 1991 on establishing indicative limit values by implementing Council Directive 80/1107/EEC on the protection of workers from the risks related to exposure to chemical, physical and biological agents at work. Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended).

15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

SECTION 16: Other information

Issued by	Supplier
Revision date	12/03/2018
Revision	1.0
SDS number	48003000
Hazard statements in full	H225 Highly flammable liquid and vapour. H226 Flammable liquid and vapour. H302 Harmful if swallowed. H311 Toxic in contact with skin. H312 Harmful in contact with skin. H314 Causes severe skin burns and eye damage. H318 Causes serious eye damage. H319 Causes serious eye irritation. H330 Fatal if inhaled. H332 Harmful if inhaled. H335 May cause respiratory irritation. H341 Suspected of causing genetic defects. H351 Suspected of causing cancer. H373 May cause damage to organs through prolonged or repeated exposure.
Store Between	Store Between 5'c - 25'c



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Version 2

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Version History

Version 1	May 2018	New Document for CLP Regualtions
Version 2	June 2019	Amended logo, added UFI Code (page 1)

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