

SAFETY DATA SHEET  
according to Regulation (EC) No. 1907/2006  
**Sika-Trocal Welding Agent**



Revision Date 22.09.2014

Version 1.0

Print Date 22.09.2014

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

**1.1 Product identifier**

Trade name : Sika-Trocal Welding Agent  
Registration number : 01-2119444314-46-XXXX  
Substance name : tetrahydrofuran  
Substance No. : 203-726-8

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

At present there is no complete information available on identified uses. When the data becomes available, it will be integrated into the safety data sheet.

Product use : Special system.

**1.3 Details of the supplier of the safety data sheet**

Company : Sika Limited  
Watchmead  
Welwyn Garden City  
Hertfordshire AL7 1BQ  
United Kingdom  
Telephone : +44 (0)1707 394444

**1.4 Emergency telephone number**

Emergency telephone number : +44 (0)1707 363899 (available during office hours)

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**SECTION 2: Hazards identification**

**2.1 Classification of the substance or mixture**

Type of product : Substance

**Classification (REGULATION (EC) No 1272/2008)**

Flammable liquids, Category 2	H225: Highly flammable liquid and vapour.
Acute toxicity, Category 4	H302: Harmful if swallowed.
Eye irritation, Category 2	H319: Causes serious eye irritation.
Carcinogenicity, Category 2	H351: Suspected of causing cancer.
Specific target organ toxicity - single exposure, Category 3, Central nervous system	H336: May cause drowsiness or dizziness.
Specific target organ toxicity - single exposure, Category 3, Respiratory system	H335: May cause respiratory irritation.

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**Classification (67/548/EEC, 1999/45/EC)**

Highly flammable	R11: Highly flammable. R19: May form explosive peroxides.
Irritant	R36/37: Irritating to eyes and respiratory system.
Carcinogenic Category 3	R40: Limited evidence of a carcinogenic effect.
Harmful	R22: Harmful if swallowed. R67: Vapours may cause drowsiness and dizziness.

**2.2 Label elements**

**Labelling (REGULATION (EC) No 1272/2008)**

Hazard pictograms	:	  
Signal word	:	Danger
Hazard statements	:	H225 Highly flammable liquid and vapour. H302 Harmful if swallowed. H319 Causes serious eye irritation. H335 May cause respiratory irritation. H336 May cause drowsiness or dizziness. H351 Suspected of causing cancer.
Precautionary statements	:	<b>Prevention:</b> P201 Obtain special instructions before use. P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P233 Keep container tightly closed. P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray. P281 Use personal protective equipment as required. <b>Response:</b> P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.

**2.3 Other hazards**

This substance is not considered to be very persistent nor very bioaccumulating (vPvB).  
This substance is not considered to be persistent, bioaccumulating nor toxic (PBT).

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

**3.1 Substances**



Chemical Name	CAS-No. EINECS-No. / ELINCS No.	Concentration [%]
tetrahydrofuran Contains: methanol $\geq 0,1$ - $\leq 0,5$ %	109-99-9 203-726-8 01-2119444314-46-XXXX	$\geq 50$ - $\leq 100$

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

- General advice : Move out of dangerous area.  
Consult a physician.  
Show this safety data sheet to the doctor in attendance.
- If inhaled : Move to fresh air.  
Consult a physician after significant exposure.
- In case of skin contact : Take off contaminated clothing and shoes immediately.  
Wash off with soap and plenty of water.  
If symptoms persist, call a physician.
- In case of eye contact : Immediately flush eye(s) with plenty of water.  
Remove contact lenses.  
Keep eye wide open while rinsing.  
If eye irritation persists, consult a specialist.
- If swallowed : Clean mouth with water and drink afterwards plenty of water.  
Do not give milk or alcoholic beverages.  
Never give anything by mouth to an unconscious person.  
Obtain medical attention.

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

- Symptoms : Gastrointestinal discomfort  
Cough  
Respiratory disorder  
Excessive lachrymation  
Loss of balance  
Vertigo  
See Section 11 for more detailed information on health effects and symptoms.
- Risks : irritant effects

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

- Treatment : Treat symptomatically.

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

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Suitable extinguishing media : Alcohol-resistant foam, Carbon dioxide (CO<sub>2</sub>), Dry chemical

Unsuitable extinguishing media : Water

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

Hazardous combustion products : No hazardous combustion products are known

### 5.3 Advice for firefighters

Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus.

Further information : Use water spray to cool unopened containers.

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## SECTION 6: Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : Use personal protective equipment.  
Remove all sources of ignition.  
Deny access to unprotected persons.

Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.

### 6.2 Environmental precautions

Environmental precautions : Prevent product from entering drains.  
If the product contaminates rivers and lakes or drains inform respective authorities.

### 6.3 Methods and materials for containment and cleaning up

Methods for cleaning up : Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).

### 6.4 Reference to other sections

For personal protection see section 8.

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## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

Advice on safe handling : Do not breathe vapours or spray mist. Avoid exceeding of the given occupational exposure limits (see section 8). Do not get in eyes, on skin, or on clothing. For personal protection see

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section 8. Smoking, eating and drinking should be prohibited in the application area. Take precautionary measures against static discharge. Open drum carefully as content may be under pressure. Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapours). Follow standard hygiene measures when handling chemical products

Advice on protection against fire and explosion : Use explosion-proof equipment. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Take precautionary measures against electrostatic discharges.

Hygiene measures : Handle in accordance with good industrial hygiene and safety practice. When using do not eat or drink. When using do not smoke. Wash hands before breaks and at the end of workday.

**7.2 Conditions for safe storage, including any incompatibilities**

Requirements for storage areas and containers : Store in cool place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Store in accordance with local regulations.

Other data : No decomposition if stored and applied as directed.

**7.3 Specific end use(s)**

Specific use(s) : No data available

**SECTION 8: Exposure controls/personal protection**

**8.1 Control parameters**

**Components with workplace control parameters**

Components	CAS-No.	Value	Control parameters *	Basis *
tetrahydrofuran	109-99-9	TWA	50 ppm 150 mg/m3	2000/39/EC
		STEL	100 ppm 300 mg/m3	2000/39/EC
		TWA	50 ppm 150 mg/m3	GB EH40
		STEL	100 ppm 300 mg/m3	GB EH40

**8.2 Exposure controls**

**Personal protective equipment**

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- Eye protection : Safety glasses with side-shields  
Eye wash bottle with pure water
- Hand protection : Chemical-resistant, impervious gloves complying with an approved standard must be worn at all times when handling chemical products. Reference number EN 374. Follow manufacturer specifications.
- Suitable for short time use or protection against splashes:  
Butyl rubber/nitrile rubber gloves (0,4 mm),  
Contaminated gloves should be removed.  
Suitable for permanent exposure:  
Viton gloves (0.4 mm),  
breakthrough time >30 min.
- Skin and body protection : Protective clothing (e.g. Safety shoes acc. to EN ISO 20345, long-sleeved working clothing, long trousers). Rubber aprons and protective boots are additionally recommended for mixing and stirring work.
- Respiratory protection : Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.  
organic vapor filter (Type A)  
A1: < 1000 ppm; A2: < 5000 ppm; A3: < 10000 ppm  
Ensure adequate ventilation. This can be achieved by local exhaust extraction or by general ventilation. (EN 689 - Methods for determining inhalation exposure). This applies in particular to the mixing / stirring area. In case this is not sufficient to keep the concentrations under the occupational exposure limits then respiration protection measures must be used.

**Environmental exposure controls**

- General advice : Prevent product from entering drains.  
If the product contaminates rivers and lakes or drains inform respective authorities.

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**SECTION 9: Physical and chemical properties**

**9.1 Information on basic physical and chemical properties**

- Appearance : liquid  
Colour : colourless  
Odour : ether-like

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Odour Threshold	:	No data available
Flash point	:	-21 °C
Ignition temperature	:	No data available
Lower explosion limit	:	1 %(V)
Upper explosion limit	:	12 %(V)
Flammability (solid, gas)	:	No data available
Oxidizing properties	:	No data available
Auto-ignition temperature	:	No data available
pH	:	Note: not applicable
Melting point/range	:	ca. -108 °C
Boiling point/boiling range	:	ca. 66 °C
Vapour pressure	:	No data available
Density	:	ca.0,89 g/cm <sup>3</sup> at 20 °C
Water solubility	:	Note: soluble
Partition coefficient: n- octanol/water	:	No data available
Viscosity, dynamic	:	No data available
Viscosity, kinematic	:	> 7 mm <sup>2</sup> /s at 40 °C
Relative vapour density	:	No data available
Evaporation rate	:	No data available

## 9.2 Other information

No data available

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## SECTION 10: Stability and reactivity

### 10.1 Reactivity

No dangerous reaction known under conditions of normal use.

### 10.2 Chemical stability

The product is chemically stable.

### 10.3 Possibility of hazardous reactions

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Hazardous reactions : Stable under recommended storage conditions.  
Vapours may form explosive mixture with air.

**10.4 Conditions to avoid**

Conditions to avoid : Heat, flames and sparks.

**10.5 Incompatible materials**

Materials to avoid : No data available

**10.6 Hazardous decomposition products**

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**SECTION 11: Toxicological information**

**11.1 Information on toxicological effects**

**Acute toxicity**

**Components:**

**tetrahydrofuran :**

Acute oral toxicity : LD50 Oral rat: 1.650 mg/kg

Acute inhalation toxicity : LC50 rat: 54 mg/l  
Exposure time: 4 h

Acute dermal toxicity : LD50 Dermal rat: > 2.000 mg/kg

**Skin corrosion/irritation**

**Product**

No data available

**Serious eye damage/eye irritation**

**Product**

Causes serious eye irritation.

**Respiratory or skin sensitisation**

**Product**

No data available

**Germ cell mutagenicity**

**Product**

Mutagenicity : No data available

**Carcinogenicity**



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**Product**

Carcinogenicity : Suspected of causing cancer.

**Reproductive Toxicity/Fertility**

Reproductive toxicity : No data available

No data available

**Reproductive Toxicity/Development/Teratogenicity**

Teratogenicity : No data available

No data available

**STOT - single exposure**

No data available

**STOT - repeated exposure**

No data available

**Aspiration toxicity**

No data available

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**SECTION 12: Ecological information**

**12.1 Toxicity**

No data available

**12.2 Persistence and degradability**

No data available

**12.3 Bioaccumulative potential**

No data available

**12.4 Mobility in soil**

No data available

**12.5 Results of PBT and vPvB assessment**

**Product:**

Assessment : This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

**12.6 Other adverse effects**

No data available



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## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

- Product : The generation of waste should be avoided or minimized wherever possible.  
Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe way.  
Dispose of surplus and non-recyclable products via a licensed waste disposal contractor.  
Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.  
Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.
- European Waste Catalogue : 07 07 04\* other organic solvents, washing liquids and mother liquors
- Contaminated packaging : 15 01 10\* packaging containing residues of or contaminated by dangerous substances

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## SECTION 14: Transport information

### ADR

- 14.1 UN number : 2056  
14.2 Description of the goods : TETRAHYDROFURAN  
14.3 Class : 3  
14.4 Packing group : II  
Classification Code : F1  
Labels : 3  
Tunnel restriction code : (D/E)  
14.5 Environmentally hazardous : no

### IATA

- 14.1 UN number : 2056  
14.2 Description of the goods : Tetrahydrofuran  
14.3 Class : 3  
14.4 Packing group : II  
Labels : 3  
14.5 Environmentally hazardous : no

### IMDG

- 14.1 UN number : 2056  
14.2 Description of the goods : TETRAHYDROFURAN  
14.3 Class : 3

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**14.4 Packing group** : II  
Labels : 3  
EmS Number 1 : F-E  
EmS Number 2 : S-D  
**14.5 Marine pollutant** : no

**14.6 Special precautions for user**  
No data available

**14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**  
not applicable

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**SECTION 15: Regulatory information**

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

**Labelling according to EC Directives (67/548/EEC)**

Hazard pictograms :



Highly flammable



Harmful

R-phrases(s)	: R11 R19 R40 R36/37 R22 R67	Highly flammable. May form explosive peroxides. Limited evidence of a carcinogenic effect. Irritating to eyes and respiratory system. Harmful if swallowed. Vapours may cause drowsiness and dizziness.
S-phrases(s)	: S13 S16 S29 S33 S36 S37 S46	Keep away from food, drink and animal feedingstuffs. Keep away from sources of ignition - No smoking. Do not empty into drains. Take precautionary measures against static discharges. Wear suitable protective clothing. Wear suitable gloves. If swallowed, seek medical advice immediately and show this container or label.

Hazardous components which must be listed on the label:

- 203-726-8 tetrahydrofuran

**Prohibition/Restriction**

REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, preparations and articles (Annex XVII) : not applicable

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REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59). : None of the components are listed (= > 0.1 %).

REACH - List of substances subject to authorisation (Annex XIV) : not applicable

REACH Information: All substances contained in our Products are  
- preregistered or registered by our upstream suppliers, and/or  
- preregistered or registered by us, and/or  
- excluded from the regulation, and/or  
- exempted from the registration.

VOC-CH (VOCV) : 100 %

VOC-EU (solvent) : 100 %

If other regulatory information applies that is not already provided elsewhere in the Safety Data Sheet, then it is described in this subsection.

Health, safety and environmental regulation/legislation specific for the substance or mixture: : The Chemicals (Hazard Information and Packaging for Supply) Regulations 2002  
Control of Substances Hazardous to Health Regulations 2002  
The Management of Health and Safety at Work Regulations 1999  
Health and Safety at Work Act 1974  
Environmental Protection Act 1990 & Subsidiary Regulations

## 15.2 Chemical Safety Assessment

This product contains substances for which Chemical Safety Assessments are still required.

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## SECTION 16: Other information

The information contained in this Safety Data Sheet corresponds to our level of knowledge at the time of publication. All warranties are excluded. Our most current General Sales Conditions shall apply. Please consult the product data sheet prior to any use and processing.

|| Changes as compared to previous version !