


**SAFETY DATA SHEET****KOFA TMR****ADDCON**

KOFA TMR contains propionic acid

**1. Identification of the substance / preparation and company / undertaking**

<b>Product name</b>	KOFA TMR		
<b>Chemical product name</b>	Solution of propionic acid, sodium propionate and sorbic acid		
<b>Synonyms</b>	FEEDTECH TMR stabilizer; Bergo TMR stabil; Bergo Stabilomix S		
<b>Manufacturer</b>	ADDCON EUROPE GmbH Säurestr. 1, Areal E D-06749 Bitterfeld-Wolfen Germany	<b>Supplier</b>	ADDCON GmbH Parsevalstr. 6, Area D D-06749 Bitterfeld-Wolfen Germany
<b>Emergency Telephone number</b>	+49 (0) 228 9191031 (office hours: Mo – Fr, 8:00 a.m. – 4:00 p.m.; German, English speaker)		
<b>e-mail-address of person responsible for this SDS</b>	<a href="mailto:gm@addcon.com">gm@addcon.com</a>		
<b>Recommended use</b>	Preservative, feed additive		

**2. Hazards identification**

<b>Classification</b>		<b>Eye Dam. 1</b>
	<b>DANGER</b>	
<b>Hazard statements</b>	H318	Causes serious eye damage.
<b>Precautionary statements</b>	P280 P305 + 351 + 338	Wear protective gloves / protective clothing / eye protection / face protection IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
<b>Environmental hazards</b>	Causing damage in consequence of pH- shift in water.	
<b>Physical / chemical hazards</b>	May cause corrosive at metals.	

**3. Composition / information on ingredients****Substance / preparation :** preparation

Chemical name	CAS no.	%	EC- no. *	classification
Propionic acid See section 16 for the full text of the H-phrases declared above.	79-09-4	< 60	201-176-3	Danger, GHS05; skin 1B; H 226 / 314
Sodium propionate See section 16 for the full text of the H-phrases declared above.	137-40-6	~ 25	205-290-4	Warning, GHS07; Acute tox. 4, H 312
Sorbic acid See section 16 for the full text of the H-phrases declared above.	110-44-1	< 5	203-768-7	Warning, GHS07; Skin Irrit. 2, Eye Irrit. 2; H315-319-335

\* EC-No. means EINECS- or ELINCS-number.

**4. First-aid measures****Effects and symptoms**

<b>Inhalation</b>	Over-exposure by inhalation (vapour) may cause respiratory irritation (coughing).
<b>Ingestion</b>	Ingestion of the product may cause irritation and discomfort.
<b>Skin contact</b>	There is no known acute effect after over-exposure to this product.
<b>Eye contact</b>	Serious eye damage.
<b>First-aid measures</b>	
<b>General</b>	Move exposed person to fresh air. Remove contaminated clothing.
<b>Inhalation</b>	If inhaled, remove to fresh air. Obtain medical attention if symptoms occur.
<b>Ingestion</b>	If swallowed, rinsed mouth with water (only if the person is conscious). Obtain medical attention if symptoms occur.
<b>Skin contact</b>	Rinse with plenty of running water. Remove contaminated clothes and shoes. Obtain medical attention if symptoms occur.
<b>Eye contact</b>	Rinse immediately with plenty of running water. Consult medical attention for eyes immediately.
<b>First-aid facilities:</b>	No special recommendations.

## 5. Fire-fighting measures

### Extinguishing media

<b>Small fire suitable</b>	Use dry chemical or CO <sub>2</sub> .
<b>Large fire suitable</b>	Use water, foam or dry chemical powder.
<b>Unusual fire / explosion hazards</b>	Based on the available data of this product no hazardous properties are known.
<b>Hazardous thermal decomposition products</b>	In case of fire, may produce hazardous decomposition products such as carbon monoxide, carbon dioxide, sodium oxide.
<b>Special fire-fighting procedures</b>	No special measures required.
<b>Protection of fire-fighters</b>	Wear suitable protective clothing. Self-contained breathing apparatus.

## 6. Accidental release measures

<b>Personal precautions</b>	Ensure good ventilation. Avoid formation of vapour and inhalation of vapour. See protective measures under point 7 and 8.
<b>Environmental precautions</b>	Do not allow to enter drains/surface water/ground-water.
<b>Clean-up methods</b>	
<b>Small spill and leak</b>	Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder).
<b>Large spill and leak</b>	Shovel into suitable container for disposal.

**Note:** See section 8 for personal protective equipment and section 13 for waste disposal.

## 7. Handling and storage

<b>Handling</b>	Use with adequate ventilation. No special technical protective measures are necessary.
<b>Storage</b>	Store in a dry, cool and well-ventilated area (due to limited adsorption properties). The product has been produced and packaged in accordance with strict quality practices. Maintain this quality level by storing this product away from other chemicals. The product should be handled with the care usual when dealing with chemicals.
<b>Remarks</b>	Storage not together with: oxidizing reagents, bases Storage class (VCI): 12
<b>Packaging materials</b>	
<b>Suitable</b>	Polyethylene or Material, chemical-resistant.

**Note:** See section 10 for stability and reactivity.

## 8. Exposure controls / personal protection

<b>Engineering measures</b>	See section 7. No additional measures necessary.
<b>Hygiene measures</b>	When using does not eat, drink or smoke. Wash hands after handling compounds and before eating, smoking and using the lavatory at the end of the day. -German TRGS 900 – propionic acid: 10ml/m <sup>3</sup> / 31mg/m <sup>3</sup> -WEL (STEL 15min) – propionic acid: 15ml/m <sup>3</sup> / 46mg/m <sup>3</sup>

	substance	values		SPG	basics	remarks
		ml/m <sup>3</sup>	mg/m <sup>3</sup>			
<b>Airborne Exposure Limits:</b>	Propionic acid	10	31		MAK /TRGS 900	
		15	46		WEL	STEL 15min
			2,1	DNEL	General	Long-term inhalation, systemic effects
			10,4	DNEL	Workers	
			1,3	DNEL	General	Long-term inhalation, local effects
		6,3	DNEL	workers		

### Personal protective equipment – Production scale

<b>Respiratory system</b>	Breathing protection if breathable aerosols/dust is formed. Particle filter with medium efficiency for solid and liquid particles (e.g. EN 143 or 149, Type P2 or FFP2).
<b>Skin and body</b>	Working clothes
<b>Eyes</b>	Safety glasses with side shields.

## 8. Exposure controls / personal protection

### Hands

Suitable chemical resistant safety gloves (EN 374) also with prolonged, direct contact and other.

Supplementary note: The specifications are based on own tests, literature data and information of glove manufacturers or are derived from similar substances by analogy. Due to many conditions (e.g. temperature) it must be considered, that the practical usage of a chemical-protective glove in practice may be much shorter than the determined permeation time.

**Recommended material(s)** > 8 hours (breakthrough time): butyl rubber, neoprene, Viton, PVC. Replace damaged gloves.

**Advice on personal protection is applicable for high exposure levels. Select proper personal protection based on a risk assessment of the actual situation.**

## 9. Physical and chemical properties

<b>Physical state</b>	liquid
<b>Colour</b>	Yellowish – light brown
<b>Odour</b>	pungent
<b>pH</b>	4.8 – 5.3 (concentration 10%)
<b>Boiling point</b>	> 100 °C
<b>Melting point</b>	< -10 °C
<b>Flash point</b>	Not available.
<b>Lower explosion limit</b>	Not available.
<b>Upper explosion limit</b>	Not available.
<b>Auto-ignition temperature</b>	Not available.
<b>Density ( g/cm<sup>3</sup>)</b>	1.10 – 1.12 g/cm <sup>3</sup>
<b>Vapour pressure</b>	< 17.1 hPa
<b>Solubility in water</b>	soluble
<b>Solubility</b>	Easy soluble in the following materials: cold water. Partially soluble in the following materials: methanol.
<b>Molecular weight</b>	Not available
<b>Minimum ignition energy</b>	Not available.
<b>Dust explosion class</b>	Not available.
<b>Remarks</b>	More detailed information on the physical and chemical properties can be requested from the supplier.

## 10. Stability and reactivity

<b>Stability</b>	Stable under recommended storage and handling conditions (see section 7).
<b>Conditions to avoid</b>	To avoid thermal decomposition, do not overheat. Heating can release vapours which can be ignited.
<b>Materials to avoid</b>	Oxidizing substances, bases
<b>Hazardous decomposition products</b>	In case of fire: see section 5.

## 11. Toxicological information

### Potential acute health effects

<b>Inhalation</b>	Vapour may irritate respiratory tract and lungs.
<b>Ingestion</b>	May cause gastrointestinal irritation, nausea, vomiting and diarrhoea.
<b>Skin contact</b>	There is no known acute effect after over-exposure to this product.
<b>Eye contact</b>	Risk of serious damage to eyes.

### Acute toxicity

Product / ingredient name	Result	Species	Dose	Exposure
Propionic acid	LD50 oral LD50 dermal	rat rabbit	2600 mg/kg 500 mg/kg	- 4 hours

## 11. Toxicological information

### Primary irritation

Product / ingredient name	Test	Species	Evaluation	Method
KOFA® TMR	skin Eye	Rabbit	Not irritant irritant	OECD 404 EEC 84/449, B5

**Sensitization** No sensitizing effect admits. [OECD Guideline 406]

### Potential chronic health effects

**Chronic effects** No known significant effects or critical hazards.

**Carcinogenicity** No known significant effects or critical hazards.

**Mutagenicity** No known significant effects or critical hazards.

**Teratogenicity** No known significant effects or critical hazards.

**Developmental effects** No known significant effects or critical hazards.

**Fertility effects** No known significant effects or critical hazards.

**Chronic toxicity** No specific data.

**Carcinogenicity** No specific data.

**Mutagenicity** No specific data.

**Teratogenicity** No specific data.

**Reproductive toxicity** No specific data.

**Conclusion / summary** No indications for carcinogenicity. No indications for reproduction toxicity. The product has not been tested. The statement has derived from products of similar structure and composition.

## 12. Ecological information

**Environmental effects** Readily biodegradable. This product shows a low bioaccumulation potential.

### Aquatic ecotoxicity

Product / ingredient name	Test	Result	Species	Exposure
propionic acid	Mortality	Acute LC50 4740 mg/l	Fish	96 hours
	Mortality	Acute EC50 130 mg/l	Daphnia	24 hours

**Persistence / degradability** Readily biodegradable (according to OECD criteria).  
Elimination information:  
Test method: OECD 301D; EEC 92/69, C.4-E (aerobic), activated sludge, domestic.  
Method of analysis: BOD of the ThOD.

**Other adverse effects** No known significant effects or critical hazards.

**AOX** The product does not contain organically bound halogens which could lead to an AOX (Absorbable Organically bound Halogens) value in waste water.

**Mobility** Dissolves readily in water.

## 13. Disposal considerations

**Methods of disposal (waste of residues; contaminated packaging)** Waste must be disposed of in accordance with national and local environmental regulations. Controlled biodegradation in waste water treatment is possible. Unclean empty containers are to be handled as the substance contained itself.

## 14. Transport information

### International transport regulations - NOT APPLICABLE -

Regulatory information	UN - Number	Proper shipping name	class	PG*	Label	Additional information
ADR/RID Class	-	-	-	-	-	-
ADNR Class					-	-
IMDG Class					-	-
IATA Class					-	-

PG\* : Packing group

## 15. Regulatory information

Remarks	The product has been labelled with dangerous substance: propionic acid, sodium propionate, sorbic acid
	Water contaminating class (Germany): 1

## 16. Other information

Full text of H Statements / R phrases referred to in sections 2 and 3 – United Kingdom (UK)	H226 – flammable liquid and vapour H312 – harmful in contact with skin H314 – causes severe skin burns and eye damage H315 – causes skin irritation H318 – causes serious eye damage H319 – causes serious eye irritation H335 – may cause respiratory irritation
Full text of classifications referred to in sections 2 and 3 – United Kingdom (UK)	Danger
Information	Warning GHS05 – corrosive Department QS, AS Tel.: +49 (0) 228 9191031
Internal code	SDB_TMR_E_0012
History	
Date of printing	11.09.2019
Date of issue	08.08.2014
Version	12

### Notice to reader

The information contained in the Safety Data Sheet is based on our data available on the date of publication. The information is intended to aid the user in controlling the handling risks; it is not to be construed as a warranty or specification of the product quality. The information may not be or may not altogether be applicable to combinations of the product with other substances or to particular applications.

The user is responsible for ensuring that appropriate precautions are taken and for satisfying them that the data are suitable and sufficient for the product's intended purpose. In case of any unclarity we advise consulting the supplier or an expert.

### Training advice

Handling of this substance or preparation is restricted to skilled personal only.

### Source of key data

Literature data and/or investigation reports are available through the manufacturer.

### Alterations compared to the previous version

Alterations compared to the previous version are marked with a little (blue) triangle.