



# Sugru®/ FORMEROL® F.10

Safety Data Sheet

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Version 2

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FORMEROL® technology is protected by the following international patents and applications:

European Patent No. 2089465 B1 Chinese Patent No. 200780050641.6 Macau Patent No. J/001226 US Patent Application No. 12/517,057 Indian Patent Application No. 3946/DELNP/2009

#### **SECTION 1: Identification**

1.1 Product identifier used on the label

Sugru (all colours)

1.2 Relevant identified uses of the substance or mixture and uses advised against Mouldable self-adhesive silicone. Uses advised against: not available.

1.3 Details of the supplier of the safety data shee

FormFormForm Ltd, Unit 2, 47-49 Tudor Road, London E9 7SN, UK

of the safety data sheet Tel: +44 (0) 20 7998 0022

1.4 Emergency phone number

+44 (0) 20 7998 0022 (UK business hours)

France: + 33 (0)1 45 42 59 59 numéro ORFILA (INRS). Denmark: 82 12 12 12 (Giftlinjen, Bispebjerg Hospital).

Netherlands: 030 274 88 88 (Nationaal Vergiftigingen Informatie Centrum). Norway: 22 59 13 00 (Helsedirektoratet, Norweigen Directorate of Health). Finland: (09) 4711 (Poison Information Centre, Hospital District of Helsinki

and Uusimaa).

Sweden: 112 (Giftinformationscentralen; Swedish Poison Information Centre). Hungary: 06 80 20 11 99 (Egészségügyi Toxikológiai Tájékoztató Szolgálat,

ETTSZ) (Toxicological Information Service).

Czech Republic: +420 224 91 92 93 (Toxikologické informační středisko, TIS).

Spain: + 34 91 562 04 20 (only toxicological emergencies);

Toxicological Information Service.

Portugal: 808 250 143 (Centro de Informação Antivenenos).

## SECTION 2. Hazard(s) identification

## 2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008

This product does not meet the criteria for classification in any hazard class.

Classification according to Directive 1999/45/EC

This product does not meet the criteria for classification in any hazard class.

## 2.2 Label elements

Pictogram

None.

Signal word

None.

Hazard statements

None.

Precautionary statements None.

Supplemental information None.

### 2.3 Other hazards

25–50% of the mixture consists of ingredients of unknown acute toxicity. Contains 25–50% of components with unknown hazards to the aquatic

environment.





#### Section 3. Composition/information on ingredients

3.1 Mixtures					Classification		
Declarable components	Conc	EC No.	CAS No.	REG	67/548/EEC	1272/2008	
Methyltris(methyleth- ylketoxime) silane	(wt%) 1 to 5	245-366-4	22984-54-9	<b>No.</b> NA	Xn (harmful), R48/22; Xi (irritant), R36-43	Eye Irrit 2, H319; Skin Sens 1B, H317; STOT RE 2, H373	
3-Aminopropyltriethoxy- silane	0.01 to 1	213-048-4	919-30-2	NA	Xn (harmful), R22; C (corrosive), R34; Xi (irritant), R43	Acute Tox 4, H302; Skin Corr 1B, H314; Skin Sens 1, H317	

Classification

Other components	Conc (wt%)	EC No.	CAS No.	REG No. 67/548/EEC	1272/2008
Ketoxime functional polydimethylsiloxane	25-50	NA	NA		
Talc	25-50	NA	14807-96-6		
Additives	25-50				

NA: not available.

See Section 16 'Other information' for full text of the R- and H-phrases

# Section 4. First-aid measures

#### 4.1 Description of first aid measures

Inhalation If inhalation of the product is suspected, remove exposed person to fresh

air, and give rest. If the patient continues to feel unwell, get prompt

medical attention.

Skin Remove contaminated clothing and wash affected area with soap and

water. Get medical attention if irritation or other symptoms occur. Launder

contaminated clothing before re-use.

Eye In case of contact with eyes, irrigate with water for 15 minutes,

occasionally lifting eyelids. Remove any contact lenses if easy to do. Get

prompt medical advice if irritation occurs.

If swallowed, give water to drink. Get prompt medical attention if symptoms Ingestion

occur. Do not induce vomiting, unless instructed by medical personnel.

4.2 Most important symptoms/effects, acute and delayed May cause sensitization by skin contact in some individuals.

4.3 Indication of immediate Treat symptoms as they occur. medical attention and special treatment

needed

## Section 5. Fire-fighting measures

#### 5.1 Extinguishing media

Suitable General fire-extinguishing agents such as water, carbon dioxide, and dry

chemicals.

Unsuitable Not available.

from the substance or

mixture

5.2 Special hazards arising The product is not flammable, but will decompose if involved in a fire,

producing smoke, and toxic fumes and gases.

5.3 Advice for firefighters Remove containers from fire or cool them with water spray. Firefighters

should wear self-contained breathing apparatus and full protective

clothing.





#### Section 6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For large-scale spills, ensure full personal protection is worn. Keep unauthorised personnel from the spillage area. Ventilate area. Follow prescribed procedures for responding to large spills and reporting to authorities.

6.2 Environmental precautions

Prevent product or run-off from clean-up operations from entering water courses or drainage system.

6.3 Methods and material for containment and cleaning up

Carefully sweep up or collect product, and place in suitable container for disposal. Wash contaminated surfaces with water, and collect washings for safe disposal.

6.4 Reference to other sections

For recommended personal protective equipment, see Section 8. For disposal considerations, see Section 13.

## Section 7. Handling and storage

7.1 Precautions for safe handling

For industrial or commercial use, avoid contact with skin and eyes. Wear protective clothing as in Section 8. Good general ventilation is recommended.

7.2 Conditions for safe storage, including any incompatibilities

Keep containers in a cool, dry place away from direct sunlight. Store in sealed containers. Keep containers closed when not in use.

7.2 Specific end use(s) Not available.

# Section 8. Exposure controls/personal protection

8.1 Control parameters

EU limit values None.

**UK limit values** Talc, respirable dust: WEL: TWA 1 mg/m3.

Barium sulphate: WEL: TWA 10 mg/m3 (inhalable fraction), 4 mg/m3

(respirable fraction).

Silica, amorphous: WEL: 8 h TWA, 6 mg/m3 (inhalable), 2.4 mg/m3

(respirable).

Other limit values Talc:

Denmark TWA 0.3 mg/m3, STEL, 0.6 mg/m3 (respirable aerosol);

The Netherlands TWA 0.25 mg/m3 (respirable aerosol);

Finland TWA 0.5 fibres/cm3;

Sweden TWA 2 mg/m3 (inhalable aerosol), 1 mg/m3 (respirable aerosol);

Hungary 2 mg/m3 (respirable aerosol); Spain 2 mg/m3 (respirable

aerosol).

Barium sulphate:

Germany TWA 4 mg/m3 (inhalable fraction), 1.5 mg/m3 (respirable

fraction):

Spain TWA 10 mg/m3 (inhalable fraction).

Silica, amorphous:

Germany TWA 4 mg/m3 (inhalable aerosol);

Denmark TWA 2 mg/m3 (inhalable aerosol), STEL 4 mg/m3 (inhalable

aerosol).

2-Butanone oxime:

Germany TWA 1 mg/m3 (0.3 ppm), STEL 8 mg/m3 (2 ppm);

Denmark TWA 25 ppm (provisional). (3-Aminopropyl)triethoxysilane:

Finland TWA 28 mg/m3 (3 ppm), STEL 55 mg/m3 (6 ppm).

Monitoring procedure

BS EN 14042:2003; Workplace Atmospheres; Guide for the Application and Use of Procedures for the Assessment of Exposure to Chemical and

Biological Agents, or specific national equivalent.

Other: human health (DNELs, DMELs)

Barium sulphate: workers, long-term exposure, systemic effects, inhalation, 10 mg/m3; workers, long-term exposure, local effects,

inhalation, 10 mg/m3. General population, long-term exposure, systemic effects, inhalation, 10 mg/m3; general population, long-term exposure, systemic effects, oral, 13 000 mg/kg/day.

Silicon dioxide: DNEL: worker, long-term exposure, systemic effects,

inhalation, 4 mg/m3.

Other: environmental

(PNEC)

Barium sulphate: PNECs: PNECs: freshwater, 227.8 mg/L; intermittent release, 21 mg/L; sewage treatment plant, 50.1 mg/L; freshwater sediment, 792.7 mg/kg dry sediment; soil, 207.7 mg/kg dry soil.

P 3/6





8.2 Exposure controls

Engineering controls For industrial and commercial use, good general ventilation is recom-

Personal protective

equipment

For industrial and commercial use, the need for personal protective equipment should be based on a workplace risk assessment for the

particular use.

Avoid skin and eye contact by wearing chemical resistant gloves (eg nitrile, neoprene, PVC) and safety goggles. Where more extensive contact

may occur, wear suitable protective clothing (eg overalls).

Wear respiratory protective equipment if exposure to dusts or vapours is possible during product processing. PPE should be to European (EN) standards. Consult manufacturers concerning breakthrough times. After work, wash hands before smoking, eating, or drinking.

Environmental exposure

controls

Not available.

#### Section 9. Physical and chemical properties

9.1 Information on basic physical and chemical

properties

**Appearance** Highly coloured paste Odour Characteristic

**Odour threshold** Not available nН Not available Melting/freezing point Not available Initial boiling point/range Not available Flash point Not available **Evaporation rate** Not available Flammability (solid, gas) Not applicable Flamm. or expl. limits Not available Vapour pressure Not available Vapour density Not available Relative density Not available **Solubilities** Insoluble in water Partition coeff. (Kow) Not available Auto-ignition temp. Not available Decomposition temp. Not available Viscosity Not available **Explosive properties** Not available Not available Oxidising properties

# Section 10. Stability and reactivity

10.1 Reactivity Not available

10.2 Chemical stability Product is supplied in sealed containers. Opening the container and

exposing the product to air will cause the product to self-react to form

cured polymer. The polymerisation reaction is not hazardous.

10.3 Possibility of hazardous reactions

9.2 Other information

Not available

Not available

10.4 Conditions to avoid Avoid prolonged storage at high temperature or exposure to sunlight.

10.5 Incompatible materials Acids, bases, and oxidising agents.

10.6 Hazardous

decomposition products Not available

# Section 11. Toxicological information

## 11.1 Information on toxicological effects

**Acute toxicity** Based on available data, the classification criteria are not met.

Skin corrosion/irritation Based on available data, the classification criteria are not met.

Some ingredients present at low concentration have been identified with

irritant properties.

Serious eye damage /

irritation

Based on available data, the classification criteria are not met.

Some ingredients present at low concentration have been identified with

irritant properties.

Respiratoryor skin sensitization

Based on available data, the classification criteria are not met. Some ingredients present at low concentration have been identified with

irritant properties. May cause sensitization in some individuals.





Germ cell mutagenicity Carcinogenicity Reproductive toxicity STOT-single exposure STOT-repeated exposure **Aspiration hazard** 

Not classified due to lack of data Not classified due to lack of data

## Section 12. Ecological information

12.1 Toxicity

Not available.

12.2 Persistence and degradability

In the environment, the product will react with moisture to form a polymer, which is expected to persist in the environment.

12.3 Bioaccumulative potential

Not available.

12.4 Mobility in soil

The polymer is insoluble in water and involatile, and will persist

in the soil compartment.

12.5 Results of PBT and vPvB assessment

Not available.

12.6 Other adverse effects Not available.

# Section 13. Disposal considerations

13.1 Waste treatment methods

Incineration or landfill are the recommended methods of disposal for the product, or the polymer it forms on reaction with air. Dispose of contaminated product, empty containers and materials used in cleaning up spills or leaks in accordance with current national and local regulations. Chemical residues generally count as special waste. General EU requirements are given in Directive 2008/98/EC.

## Section 14. Transport information

14.1 UN Number

Not classified as dangerous goods for transport.

14.2 UN proper shipping name

Not applicable.

14.3 Transport hazard

Not applicable.

class(es)

Not applicable.

14.4 Packing group 14.5 Environmental hazards Not marine pollutant/environmentally hazardous.

14.6 Special precautions for Not available.

user

14.7 Transport in bulk according to Annex II of MARPOL73/78 and

the IBC Code

Not applicable.

## Section 15. Regulatory information

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

UK: Workplace Exposure Limits EH40/2005, with 2007 supplement, Health and Safety Executive; Control of Substances Hazardous to Health Regulations 2002 (COSHH), as amended.

Germany: WGK (Wassergefährdungsklassen) Regulation:

Verwaltungsvorschrift wassergefährdende Stoffe (VwVwS), designating water hazard classes. Product WGK, 1 (self-classification). Occupational exposure limits: List of MAK and BAT Values 2013,

Commission for the Investigation of Health Hazards of Chemical Compounds in the Work Area, Report No. 49, Wiley-VCH.

France: Valeurs limites d'exposition professionelle aux agents chimiques en France (professional exposure limit values to chemical agents in France); Institut National de Recherche et de Sécurité, Document ED 984.

Denmark: Limit Values for Substances and Materials; Grænseværdier for stoffer og materialer; C.0.1; Arbejdstilsynet; August 2007.

The Netherlands: Occupational exposure limits: Appendix XIII of the Working Conditions Regulations; Government Gazette (Staatscourant) of 28 December 2006, no. 252.

Norway: Occupational Exposure Limits: Veiledning om Administrative normer for forurensning i arbeidsatmosfæren, 2010; Arbeidstilsynet; best. nr. 361.

Finland: Occupational exposure limit values: Sosiaali- ja terveysministeriön julkaisuja 2007:4, HTP-arvot 2007.

Sweden: Occupational Exposure Limit Values and Measures Against Air Contaminants; AFS 2005:17; Statute Book of the Swedish Work Environment Authority.



**Iceland:** Regulation 154/1999 on pollution levels and measures to reduce pollution in workplaces; Ministry of Social Affairs.

Poland: Harmful agents in the working environment – limit values; Central

Institute for Labour Protection, National Research Institute. **Hungary**: Exposure limits are listed in: A munkahelyek kémiai

biztonságáról szóló 25/2000. (IX. 30.) EüM-SZCSM rendelet [Ordinance No.25/2000, of 30 Sept., concerning the chemical safety of workplaces]. **Czech Republic:** Exposure limits are listed in: Hygienické limity latek v ovzduší pracovišt a způsoby jejich měřeni a hodnocení.

**Italy**: Occupational exposure values: Decreto Ministeriale 26/02/04. Definizione di una prima lista di valori limite indicativi di esposizione professionale agli agenti chimici.

Spain: Límites de Exposición Profesional Para Agentes Químicos En España 2008; Instituto Nacional de Seguridad e Higiene en el Trabajo (INSHT).

**Portugal**: Decreto-Lei no. 305/2007 de 24-08-2007; Artigo 2.° - Valores limites de exposição profissional indicatives (Decree on occupational exposure limits).

15.2 Chemical safety assessment

Not available.

## **Section 16: Other information**

Revisions This SDS is the first version in EU format, using classification according to

the CLP Regulation.

Abbreviations DNEL, derived no-effect level; DMEL, derived minimum effect level; PBT,

persistent, bioaccumulative, and toxic; PNEC, predicted no-effect concentration; TWA, time-weighted average; WEL, UK workplace exposure limit; vPvB, very persistent, very bioaccumulative.

References Search for chemicals; available at the European Chemicals Agency

(ECHA) website: http://echa.europa.eu/.

GESTIS International Limit Values; Institut für Arbeitsschutz der Deutschen Gesetzlichen Unfallversicherung (IFA); http://www.dguv.de. EU Indicative Occupational Exposure Limit Values (IOELVs): Directives

2000/39/EC, 2006/15/EC and 2009/161/EU.

Basis of classification The mixture is self-classified on the basis of available information on the

ingredients.

List of R-phrases R22, harmful if swallowed; R34, causes burns; R36, irritating to eyes; R43,

may cause sensitisation by skin contact; R48, danger of serious damage

to health by prolonged exposure.

List of hazard statements H302: Harmful if swallowed; H314: Causes severe skin burns and eye

damage; H317: May cause an allergic skin reaction; H318: Causes serious eye damage; H319: Causes serious eye irritation; H373: May cause damage to organs through prolonged or repeated exposure.