

Nacera Inspection

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)
Date of issue: 21/02/2019 Revision date: 21/02/2019 Version: 1.00

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

1.1. Product identifier

Trade name : Nacera Inspection

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

1.2.1. Relevant identified uses

Main use category : Professional uses
Use of the substance/mixture : Penetration test solution for non-destructive material testing

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Supplier

DOCERAM Medical Ceramics GmbH
Heßlingsweg 65-67
44309 Dortmund - Germany
T +49-231-92 56 68-0 - F +49-231-92 56 68-60

Email competent person

sds@kft.de

Informing department

Informing department: See supplier/manufacturer

Emergency telephone number:

1 800 565 8161 (local callers);
+1 902 470 8161

1.4. Emergency telephone number

Emergency number : National Health Service (NHS)
24 hour national number consumer
England and Scotland: 111
Wales: 0845 46 47
Northern Ireland: call your local General Practitioner

Call 999 if there is a life-threatening incident.

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Skin corrosion/irritation, Category 2 H315
Serious eye damage/eye irritation, Category 2 H319
Hazardous to the aquatic environment — Chronic Hazard, Category 3 H412
Full text of H statements : see section 16

Adverse physicochemical, human health and environmental effects

Causes skin irritation. Causes serious eye irritation. Harmful to aquatic life with long lasting effects.

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP) :



GHS07

Signal word (CLP) :

Warning

Hazard statements (CLP) :

H315 - Causes skin irritation.
H319 - Causes serious eye irritation.
H412 - Harmful to aquatic life with long lasting effects.

Nacera Inspection

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)

Precautionary statements (CLP)

: P273 - Avoid release to the environment.
P280 - Wear protective gloves, eye protection.
P302+P352 - IF ON SKIN: Wash with plenty of water.
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313 - If eye irritation persists: Get medical advice/attention.
P332+P313 - If skin irritation occurs: Get medical advice/attention.

2.3. Other hazards

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Comments

: Mixture of the substances listed below with non-hazardous additives glycol, Emulsifier, fluorescent dyes

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
2-(2-butoxyethoxy)ethanol	(CAS-No.) 112-34-5 (EC-No.) 203-961-6 (EC Index-No.) 603-096-00-8	>=50 - <70	Eye Irrit. 2, H319
Alcohols, C16-18 and C18-unsatd., ethoxylated	(CAS-No.) 68920-66-1	>=20 - <25	Skin Irrit. 2, H315 Aquatic Acute 1, H400 Aquatic Chronic 3, H412
7-(diethylamino)-4-methyl-2-benzopyrone	(CAS-No.) 91-44-1 (EC-No.) 202-068-9	>=1 - <2.5	Acute Tox. 4 (Oral), H302 Eye Irrit. 2, H319 Aquatic Chronic 2, H411
Poly(oxy-1,2-ethanediyl), alpha-phosphono-omega-(tridecyloxy)-, potassium salt (1:2)	(CAS-No.) 68311-04-6	>=0.1 - <1	Skin Irrit. 2, H315 Eye Irrit. 2, H319

Full text of H-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : In all cases of doubt, or when symptoms persist, seek medical attention.
First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact : Wash skin with plenty of water. Take off contaminated clothing. If skin irritation occurs: Get medical advice/attention.
First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
First-aid measures after ingestion : Rinse mouth out with water. Spit. Call a poison center or a doctor if you feel unwell.

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

Symptoms/effects after skin contact : Irritation.
Symptoms/effects after eye contact : Eye irritation.

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

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide. Use extinguishing media appropriate for surrounding fire.
Unsuitable extinguishing media : Strong water jet.

5.2. Special hazards arising from the substance or mixture

Nacera Inspection

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)

Explosion hazard : Explosive vapour/air mixtures may be formed.
Hazardous decomposition products in case of fire : Toxic fumes may be released. Carbon dioxide. Carbon monoxide. Nitrogen oxides.

5.3. Advice for firefighters

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.
Other information : Do not allow run-off from fire fighting to enter drains or water courses. Disposal must be done according to official regulations.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures : Ventilate spillage area. Avoid contact with skin and eyes.

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Avoid sub-soil penetration. Prevent entry to sewers and public waters.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Take up liquid spill into absorbent material. Take up mechanically (sweeping, shovelling) and collect in suitable container for disposal.
Other information : Disposal must be done according to official regulations.

6.4. Reference to other sections

Information for safe handling. See section 7. Concerning personal protective equipment to use, see section 8. For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed : In use, may form flammable vapour-air mixture.
Precautions for safe handling : Ensure good ventilation of the work station. Wear personal protective equipment. Avoid contact with skin and eyes.
Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product. Wash contaminated clothing before reuse.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in a well-ventilated place. Keep cool.
Information about storage in one common storage facility : Keep away from food, drink and animal feeding stuffs.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

2-(2-butoxyethoxy)ethanol (112-34-5)		
EU	Local name	2-(2-Butoxyethoxy)ethanol
EU	IOELV TWA (mg/m ³)	67.5 mg/m ³
EU	IOELV TWA (ppm)	10 ppm
EU	IOELV STEL (mg/m ³)	101.2 mg/m ³
EU	IOELV STEL (ppm)	15 ppm
EU	Regulatory reference	COMMISSION DIRECTIVE 2006/15/EC
United Kingdom	Local name	2-(2-Butoxyethoxy)ethanol

Nacera Inspection

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)

2-(2-butoxyethoxy)ethanol (112-34-5)

United Kingdom	WEL TWA (mg/m ³)	67.5 mg/m ³
United Kingdom	WEL TWA (ppm)	10 ppm
United Kingdom	WEL STEL (mg/m ³)	101.2 mg/m ³
United Kingdom	WEL STEL (ppm)	15 ppm
United Kingdom	Regulatory reference	EH40/2005 (Third edition, 2018). HSE

2-(2-butoxyethoxy)ethanol (112-34-5)

DNEL/DMEL (Workers)

Acute - local effects, inhalation	101.2 mg/m ³
Long-term - systemic effects, dermal	83 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	67.5 mg/m ³
Long-term - local effects, inhalation	67.5 mg/m ³

DNEL/DMEL (General population)

Acute - local effects, inhalation	60.7 mg/m ³
Long-term - systemic effects, oral	5 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	40.5 mg/m ³
Long-term - systemic effects, dermal	50 mg/kg bodyweight/day
Long-term - local effects, inhalation	40.5 mg/m ³

PNEC (Water)

PNEC aqua (freshwater)	1.1 mg/l
PNEC aqua (marine water)	0.11 mg/l

PNEC (Sediment)

PNEC sediment (freshwater)	4.4 mg/kg dwt
PNEC sediment (marine water)	0.44 mg/kg dwt

PNEC (Soil)

PNEC soil	0.32 mg/kg dwt
-----------	----------------

PNEC (Oral)

PNEC oral (secondary poisoning)	56 mg/kg food
---------------------------------	---------------

PNEC (STP)

PNEC sewage treatment plant	200 mg/l
-----------------------------	----------

8.2. Exposure controls

Appropriate engineering controls:

Ensure good ventilation of the work station.

Hand protection:

In case of repeated or prolonged contact wear gloves. EN 374. Choosing the proper glove is a decision that depends not only on the type of material, but also on other quality features, which differ for each manufacturer. Please follow the instructions related to the permeability and the penetration time provided by the manufacturer. Gloves must be replaced after each use and whenever signs of wear or perforation appear

Type	Material	Permeation	Thickness (mm)	Penetration	Standard
Chemically resistant protective gloves	Butyl rubber	6 (> 480 minutes)	-	3 (> 0.65)	EN ISO 374
Chemically resistant protective gloves	Nitrile rubber	6 (> 480 minutes)	>= 0,38	3 (> 0.65)	EN ISO 374
Chemically resistant protective gloves	Fluoroelastomer (FKM)	6 (> 480 minutes)	>= 0,7	3 (> 0.65)	EN ISO 374

Eye protection:

Wear closed safety glasses. EN 166

Nacera Inspection

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)

Skin and body protection:

Wear suitable protective clothing. EN 340. EN 13034

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment. EN 143. Short term exposure. Breathing apparatus with filter. A-P2. Breathing equipment is only to be used in order to handle the residual risk of short term jobs if all other risk minimizing measures have been carried out e.g. retention and/or local exhaust

Environmental exposure controls:

Avoid release to the environment.

Other information:

Do not eat, drink or smoke when using this product. Avoid contact with skin and eyes. Always wash hands after handling the product.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Colour	: Yellow. Green.
Odour	: Mild.
Odour threshold	: No data available
pH	: No data available
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: Not applicable
Freezing point	: No data available
Boiling point	: ≥ 224 °C
Flash point	: 119 °C DIN EN ISO 2719 (PM)
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: Not applicable
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Density	: 0.965 g/cm ³ (15 °C)
Solubility	: Water: completely miscible
Log Pow	: Not applicable
Viscosity, kinematic	: 8.5 mm ² /s (20 °C)
Viscosity, dynamic	: 15.6 mPa·s (20 °C)
Explosive properties	: Product is not explosive. Explosive vapour/air mixtures may be formed.
Oxidising properties	: Non oxidizing.
Lower explosive limit (LEL)	: 0.7 vol %
Upper explosive limit (UEL)	: 6 vol %

9.2. Other information

VOC content	: 0 % (EU)
Other properties	: Organic solvents: 60,3%.

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use. Flammable or explosive vapour/air mixtures may be formed.

10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

Nacera Inspection

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)

10.5. Incompatible materials

Oxidizing agent.

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral) : Not classified (Based on available data, the classification criteria are not met)
Acute toxicity (dermal) : Not classified (Based on available data, the classification criteria are not met)
Acute toxicity (inhalation) : Not classified (Based on available data, the classification criteria are not met)

ATE CLP (oral)	≈ 56600 mg/kg bodyweight
----------------	--------------------------

7-(diethylamino)-4-methyl-2-benzopyrone (91-44-1)

LD50 oral rat	1410 mg/kg
Skin corrosion/irritation	: Causes skin irritation.
Serious eye damage/irritation	: Causes serious eye irritation.
Respiratory or skin sensitisation	: Not classified (Based on available data, the classification criteria are not met)
Germ cell mutagenicity	: Not classified (Based on available data, the classification criteria are not met)
Carcinogenicity	: Not classified (Based on available data, the classification criteria are not met)
Reproductive toxicity	: Not classified (Based on available data, the classification criteria are not met)
STOT-single exposure	: Not classified (Based on available data, the classification criteria are not met)
STOT-repeated exposure	: Not classified (Based on available data, the classification criteria are not met)
Aspiration hazard	: Not classified (Based on available data, the classification criteria are not met)

Nacera Inspection

Viscosity, kinematic	8.5 mm ² /s (20 °C)
----------------------	--------------------------------

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : Harmful to aquatic life with long lasting effects.
Acute aquatic toxicity : Not classified (Based on available data, the classification criteria are not met)
Chronic aquatic toxicity : Harmful to aquatic life with long lasting effects.

Alcohols, C16-18 and C18-unsatd., ethoxylated (68920-66-1)

LC50 fish 1	10 - 100 mg/l (96 h)
-------------	----------------------

7-(diethylamino)-4-methyl-2-benzopyrone (91-44-1)

LC50 fish 1	> 10 mg/l (96 h; Danio rerio; (OECD 210 method))
EC50 Daphnia 1	10.9 mg/l (48 h; Daphnia magna; (OECD 202 method))
ErC50 (algae)	17.5 mg/l (72 h; Desmodesmus subspicatus; (OECD 201 method))

12.2. Persistence and degradability

Nacera Inspection

Persistence and degradability	The product has not been tested.
-------------------------------	----------------------------------

2-(2-butoxyethoxy)ethanol (112-34-5)

Persistence and degradability	Readily biodegradable.
Biodegradation	> 80 % (OECD 301C method)

Nacera Inspection

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)

7-(diethylamino)-4-methyl-2-benzopyrone (91-44-1)

Persistence and degradability	Inherently biodegradable.
Biodegradation	46.92 % (28 d; (OECD 301D method))

12.3. Bioaccumulative potential

Nacera Inspection

Log Pow	Not applicable
Bioaccumulative potential	The product has not been tested.

7-(diethylamino)-4-methyl-2-benzopyrone (91-44-1)

Log Pow	2.523 (25 °C; (OECD 117 method))
---------	----------------------------------

12.4. Mobility in soil

Nacera Inspection

Ecology - soil	The product has not been tested.
----------------	----------------------------------

7-(diethylamino)-4-methyl-2-benzopyrone (91-44-1)

Log Koc	2.474 (25 °C; (OECD 121 method))
---------	----------------------------------

12.5. Results of PBT and vPvB assessment

Component

2-(2-butoxyethoxy)ethanol (112-34-5)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
Alcohols, C16-18 and C18-unsatd., ethoxylated (68920-66-1)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
7-(diethylamino)-4-methyl-2-benzopyrone (91-44-1)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
Poly(oxy-1,2-ethanediyl), alpha-phosphono-omega-(tridecyloxy)-, potassium salt (1:2) (68311-04-6)	PBT: not yet assessed vPvB: not yet assessed

12.6. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods	: Disposal must be done according to official regulations. European waste catalogue. Do not dispose of with domestic waste. Do not discharge into drains or the environment.
European List of Waste (LoW) code	: 07 03 01* - aqueous washing liquids and mother liquors 15 01 10* - packaging containing residues of or contaminated by dangerous substances
HP Code	: HP4 - "Irritant — skin irritation and eye damage:" waste which on application can cause skin irritation or damage to the eye. HP14 - "Ecotoxic:" waste which presents or may present immediate or delayed risks for one or more sectors of the environment

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

ADR	IMDG	IATA	ADN	RID
14.1. UN number				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.2. UN proper shipping name				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable

Nacera Inspection

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)

14.3. Transport hazard class(es)

Not applicable

Not applicable

Not applicable

Not applicable

Not applicable

14.4. Packing group

Not applicable

Not applicable

Not applicable

Not applicable

Not applicable

14.5. Environmental hazards

Not applicable

Not applicable

Not applicable

Not applicable

Not applicable

No supplementary information available

14.6. Special precautions for user

Overland transport

Not applicable

Transport by sea

Not applicable

Air transport

Not applicable

Inland waterway transport

Not applicable

Rail transport

Not applicable

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

The following restrictions are applicable according to Annex XVII of the REACH Regulation (EC) No 1907/2006:

3. Liquid substances or mixtures which are regarded as dangerous in accordance with Directive 1999/45/EC or are fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008	2-(2-butoxyethoxy)ethanol
3(b) Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard classes 3.1 to 3.6, 3.7 adverse effects on sexual function and fertility or on development, 3.8 effects other than narcotic effects, 3.9 and 3.10	Nacera Inspection - 2-(2-butoxyethoxy)ethanol - Alcohols, C16-18 and C18-unsatd., ethoxylated
3(c) Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard class 4.1	Nacera Inspection - Alcohols, C16-18 and C18-unsatd., ethoxylated
55. 2-(2-butoxyethoxy)ethanol (DEGBE)	2-(2-butoxyethoxy)ethanol

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

Contains no substance subject to REGULATION (EU) No 649/2012 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 4 July 2012 concerning the export and import of hazardous chemicals.

Substance(s) are not subject to Regulation (EC) No 850/2004 of the European Parliament and of the Council of 29 April 2004 on persistent organic pollutants and amending Directive 79/117/EEC.

VOC content : 0 % (EU)

15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

Nacera Inspection

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)

SECTION 16: Other information

Abbreviations and acronyms:

ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute Toxicity Estimate
BCF	Bioconcentration factor
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
EC50	Median effective concentration
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration
LD50	Median lethal dose
LOAEL	Lowest Observed Adverse Effect Level
NOAEC	No-Observed Adverse Effect Concentration
NOAEL	No-Observed Adverse Effect Level
NOEC	No-Observed Effect Concentration
OECD	Organisation for Economic Co-operation and Development
PBT	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS	Safety Data Sheet
STP	Sewage treatment plant
TLM	Median Tolerance Limit
vPvB	Very Persistent and Very Bioaccumulative

Data sources : MSDS of the supplier. ECHA (European Chemicals Agency).

Department issuing data : KFT Chemieservice GmbH
specification sheet: Im Leuschnerpark. 3 64347 Griesheim
Postfach 1451 64345 Griesheim
Germany

Phone: +49 6155-8981-400 Fax: +49 6155 8981-500
Safety Data Sheet Service: +49 6155 8981-522

Contact person : Dr. Johann Klassen

Full text of H- and EUH-statements:

Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aquatic Acute 1	Hazardous to the aquatic environment — Acute Hazard, Category 1
Aquatic Chronic 2	Hazardous to the aquatic environment — Chronic Hazard, Category 2
Aquatic Chronic 3	Hazardous to the aquatic environment — Chronic Hazard, Category 3
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Skin Irrit. 2	Skin corrosion/irritation, Category 2
H302	Harmful if swallowed.
H315	Causes skin irritation.
H319	Causes serious eye irritation.

Nacera Inspection

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)

H400	Very toxic to aquatic life.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

Skin Irrit. 2	H315	Calculation method
Eye Irrit. 2	H319	Calculation method
Aquatic Chronic 3	H412	Calculation method

KFT SDS EU 00

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product