

Safety Data Sheet

acc. to OSHA HCS

Printing date 01/21/2014

Reviewed on 01/21/2014

1 Identification

· Product identifier

- Trade name: **Stain Repellent Nano Effect**
- Article number: 11931, 11932/11933, 11934/11935, 11936
- Relevant identified uses of the substance or mixture and uses advised against No further relevant information available.
- Application of the substance / the mixture Protective impregnation

· Details of the supplier of the safety data sheet

- Manufacturer/Supplier: AKEMI chemisch technische Spezialfabrik GmbH
Lechstrasse 28
D 90451 Nürnberg
Tel. +49(0)911-642960
Fax. +49(0)911-644456
e-mail info@akemi.de
- Information department: Laboratory
- Emergency telephone number: Product Safety Department AKEMI chemisch technische Spezialfabrik GmbH
Tel. +49(0)911-64296-59
Reachable during the following office hours:
Monday – Thursday from 07:30 a.m. to 16:30 p.m.
Friday from 07:30 a.m. to 13:30 p.m.

2 Hazard(s) identification

· Classification of the substance or mixture



GHS08 Health hazard

Asp. Tox. 1 H304 May be fatal if swallowed and enters airways.

H227 Combustible liquid.

- Response: IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
IF exposed or concerned: Get medical advice/attention.
- Storage: Store in a well-ventilated place. Keep cool.
Store locked up.

· Classification according to Directive 67/548/EEC or Directive 1999/45/EC



Harmful

Harmful: may cause lung damage if swallowed.

May cause long-term adverse effects in the aquatic environment. Repeated exposure may cause skin dryness or cracking. Vapours may cause drowsiness and dizziness.

· Information concerning particular hazards for human and environment:

Contact with skin and inhalation of aerosols/ vapours of the preparation should be avoided.

The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

At long or repeated contact with skin it may cause dermatitis due to the degreasing effect of the solvent.

Has a narcotizing effect.

· Classification system:

The classification was made according to the latest editions of international substances lists, and expanded upon from company and literature data.

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Label elementsGHS label elements

The product is classified and labeled according to the Globally Harmonized System (GHS).

Hazard pictograms

GHS08

Signal word

Danger

Hazard-determining components of labeling:

Kohlenwasserstoffe, C11-C12, Isoalkane, <2% Aromaten
 Kohlenwasserstoffe, C11-C13, Isoalkane, <2% Aromaten
 Kohlenwasserstoffe, C11-C14, Isoalkane, Cycloalkane, <2% Aromaten.
 Naphtha (petroleum), hydrotreated heavy
 H227 Combustible liquid.

Hazard statements

H304 May be fatal if swallowed and enters airways.

Precautionary statements

P101 If medical advice is needed, have product container or label at hand.
 P102 Keep out of reach of children.
 P103 Read label before use.
 P260 Do not breathe mist/vapours/spray.
 P280 Wear protective gloves.
 P301+P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
 P304+P312 IF INHALED: Call a POISON CENTER or doctor/physician if you feel unwell.
 P302+P352 IF ON SKIN: Wash with plenty of soap and water.
 P405 Store locked up.
 P403+P235 Store in a well-ventilated place. Keep cool.
 P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

Classification system:NFPA ratings (scale 0 - 4)

Health = 0
 Fire = 2
 Reactivity = 0

HMIS-ratings (scale 0 - 4)

HEALTH	0	Health = 0
FIRE	2	Fire = 2
REACTIVITY	0	Reactivity = 0

Other hazards

The product does not contain any organic halogen compounds (AOX), nitrates, heavy metal compounds or formaldehydes.

Results of PBT and vPvB assessment

- PBT: Not applicable.
- vPvB: Not applicable.

3 Composition/information on ingredients**Chemical characterization: Mixtures**

- Description: Mixture of the substances listed below with nonhazardous additions.

Dangerous components:

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EC number: 918-167-1	Kohlenwasserstoffe, C11-C12, Isoalkane, <2% Aromaten Xn R65 R53-66 Asp. Tox. 1, H304; H227	25-50%
EC number: 920-901-0	Kohlenwasserstoffe, C11-C13, Isoalkane, <2% Aromaten Xn R65 R66 Asp. Tox. 1, H304; H227	12.5-25%
EC number: 927-285-2	Kohlenwasserstoffe, C11-C14, Isoalkane, Cycloalkane, <2% Aromaten. Xn R65 R66 Asp. Tox. 1, H304; H227	12.5-25%
CAS: 123-86-4 EINECS: 204-658-1 Index number: 607-025-00-1	n-butyl acetate R10-66-67 Flam. Liq. 3, H226; STOT SE 3, H336	<12.5%
CAS: 64742-48-9 EINECS: 265-150-3 Index number: 649-327-00-6	Naphtha (petroleum), hydrotreated heavy Xn R65 R10-66-67 Asp. Tox. 1, H304; STOT SE 3, H336; H227	<12.5%

· Additional information: For the wording of the listed risk phrases refer to section 16.

4 First-aid measures**· Description of first aid measures**

- General information: Take affected persons out into the fresh air.
Position and transport stably on side.
Immediately remove any clothing soiled by the product.
- After inhalation: Supply fresh air; consult doctor in case of complaints.
- After skin contact: If skin irritation continues, consult a doctor.
Immediately wash with water and soap and rinse thoroughly.
- After eye contact: Rinse opened eye for several minutes under running water. Then consult a doctor.
- After swallowing: A person vomiting while lying on their back should be turned onto their side.
- Information for doctor: Symptoms in intoxication with (aromatic) hydrocarbons (dosis letalis about 30 g)
 - a) In acute intoxication: headache, dizziness, euphoria, gastro-intestinal dysfunction, state of excitement, coma.
 - b) In chronic intoxication: myelotoxic damage, fatigue, dizziness, emaciation, cardiac palpitation after physical exercise, leucopenia, anemia, leukosis.
 Therapy in hydrocarbons intoxication: In case of inhalation provision of fresh air; in case of peroral intake administration of Carbo medicinalis; only after intubation conduct of gastrolavage in application of Carbo medicinalis; in case of cramps administration of Diazepam 20 mg intravenously.
- Most important symptoms and effects, both acute and delayed
 - Headache
 - Dizziness
 - Dizziness
 - Nausea
 - Gastric or intestinal disorders
 - Cramp
 - Danger of impaired breathing.
- Danger
- Indication of any immediate medical attention and special treatment needed

If swallowed or in case of vomiting, danger of entering the lungs.
If swallowed, gastric irrigation with added, activated carbon.

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Monitor circulation.

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5 Fire-fighting measures

- **Extinguishing media**
- Suitable extinguishing agents: CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **Special hazards arising from the substance or mixture** Formation of toxic gases is possible during heating or in case of fire. In certain fire conditions, traces of other toxic gases cannot be excluded, e.g.: Carbon monoxide (CO)
- **Advice for firefighters**
- Protective equipment: Wear self-contained respiratory protective device. Do not inhale explosion gases or combustion gases. Wear fully protective suit.
- **Additional information** Dispose of fire debris and contaminated fire fighting water in accordance with official regulations. Collect contaminated fire fighting water separately. It must not enter the sewage system.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures** Ensure adequate ventilation
Use respiratory protective device against the effects of fumes/dust/aerosol.
Keep away from ignition sources
- **Environmental precautions:** Do not allow product to reach sewage system or any water course. Inform respective authorities in case of seepage into water course or sewage system.
Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:** Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Dispose contaminated material as waste according to item 13.
Ensure adequate ventilation.
- **Reference to other sections** See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7 Handling and storage

- **Handling:**
- Precautions for safe handling Keep receptacles tightly sealed.
Store in cool, dry place in tightly closed receptacles.
Keep away from heat and direct sunlight.
Ensure good ventilation/exhaustion at the workplace.
- Information about protection against explosions and fires: Highly volatile, flammable constituents are released during processing.
- **Conditions for safe storage, including any incompatibilities**
- Storage:
- Requirements to be met by storerooms and receptacles: Prevent any seepage into the ground.
Provide solvent resistant, sealed floor.
Store only in the original receptacle.

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- Information about storage in one common storage facility: Store away from oxidizing agents.
Store away from foodstuffs.
- Further information about storage conditions: Store receptacle in a well ventilated area.
- Specific end use(s) No further relevant information available.

8 Exposure controls/personal protection

- Additional information about design of technical systems: No further data; see item 7.
- Control parameters

· Components with limit values that require monitoring at the workplace:

123-86-4 n-butyl acetate

PEL	Long-term value: 710 mg/m ³ , 150 ppm
REL	Short-term value: 950 mg/m ³ , 200 ppm Long-term value: 710 mg/m ³ , 150 ppm
TLV	Short-term value: 950 mg/m ³ , 200 ppm Long-term value: 713 mg/m ³ , 150 ppm

- Additional information: The lists that were valid during the creation were used as basis.
- **Exposure controls**
- Personal protective equipment:
- General protective and hygienic measures: Do not eat or drink while working.
Apply solvent resistant skin cream before beginning work.
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing.
Wash hands before breaks and at the end of work.
Do not inhale gases / fumes / aerosols.
- Breathing equipment: Short term filter device:
Filter AX
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.
- Protection of hands: After use of gloves apply skin-cleaning agents and skin cosmetics.
Preventive skin protection by use of skin-protecting agents is recommended.
After each cleaning use treatment creams, for very dry skin greasy ointments.
Akemi skin protection agent recommendation for preventive skin shelter without use of protective gloves:
STOKODERM (<http://www.stoko.com>)
Akemi skin protection agent recommendation for preventive skin shelter in application and combination of protective gloves:



Protective gloves

STOKO EMULSION (<http://www.stoko.com>)
Akemi skin protection recommendation for skin cleaning after product handling:
FRAPANTOL (<http://www.stoko.com>)
Akemi skin protection agent recommendation for skin aftercare:
STOKO VITAN (<http://www.stoko.com>)
The protection gloves to be used have to comply with the specifications of the directive 89/686/EC and the directive derived decree EN374, respectively, e.g. the above listed protection glove type. The mentioned permeation times' data were generated and

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verified with material samples of the recommended protection glove type in the scope of laboratory analyses of the company KCL GmbH in compliance with EN374.

This recommendation refers exclusively to the material safety data sheet referenced product delivered by Akemi and the indicated field of application. In case of product dilution or in case of mixture with different substances or chemicals, and in condition of EN374 deviation the producer of CE-approved protection gloves must be contacted for detailed information (e.g., KCL GmbH, Germany, 36124 Eichenzell, internet: <http://www.kcl.de>).

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· Material of gloves

Nitrile rubber, NBR
 Fluorocarbon rubber (Viton)
 Butyl rubber, BR

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· Penetration time of glove material

Value for the permeation: Level ≤ 1, 30 min

The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.

· For the permanent contact gloves made of the following materials are suitable:

Nitrile rubber, NBR
 Camatril (KCL, Art No. 730, 731, 732, 733)
 Fluorocarbon rubber (Viton)
 Vitoject (KCL, Art No. 890)
 Butyl rubber, BR
 Butoject (KCL, Art No. 897, 898)

· As protection from splashes gloves made of the following materials are suitable:

Nitrile rubber, NBR
 Camatril (KCL, 730, 731, 732, 733)

· Not suitable are gloves made of the following materials:

Chloroprene rubber, CR
 Strong gloves
 Leather gloves
 Natural rubber, NR

· Eye protection:

Goggles recommended during refilling.

· Body protection:

Solvent resistant protective clothing

9 Physical and chemical properties

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

· General Information

· Appearance:

Form: Fluid
 Color: Colorless
 Odor: Characteristic

· pH-value:

Not applicable

· Change in condition

Melting point/Melting range: Not applicable

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<u>Boiling point/Boiling range:</u>	124 °C (255 °F)
· <u>Flash point:</u>	62 °C (144 °F)
· <u>Flammability (solid, gaseous):</u>	Not determined
· <u>Ignition temperature:</u>	240 °C (464 °F)
· <u>Auto igniting:</u>	Product is not selfigniting.
· <u>Danger of explosion:</u>	Product does not present an explosion hazard.
· <u>Explosion limits:</u>	
<u>Lower:</u>	0.6 Vol %
<u>Upper:</u>	10.4 Vol %
· <u>Vapor pressure at 20 °C (68 °F):</u>	10.7 hPa (8 mm Hg)
· <u>Density at 20 °C (68 °F):</u>	0.79 g/cm ³ (6.593 lbs/gal)
· <u>Specific gravity at 20 °C (68 °F):</u>	0.79 g/cm ³ (6.593 lbs/gal)
· <u>Solubility in / Miscibility with Water:</u>	Not miscible or difficult to mix.
· <u>Viscosity:</u>	
<u>Dynamic:</u>	Not determined.
<u>Kinematic at 20 °C (68 °F):</u>	11 s (DIN 53211/4)
· <u>Solvent content:</u>	
<u>Organic solvents:</u>	96.0 %
· Other information	No further relevant information available.

10 Stability and reactivity

- **Reactivity**
- Chemical stability
- Thermal decomposition / conditions to be avoided: No decomposition if used and stored according to specifications.
- **Possibility of hazardous reactions** Can form explosive mixtures in air if heated above flash point and/or when sprayed or atomized.
Reacts with strong oxidizing agents.
Reacts with acids.
Forms flammable gases / fumes.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** Carbon monoxide and carbon dioxide
Hydrogen fluoride

11 Toxicological information

· **Information on toxicological effects**

· Acute toxicity:

· LD/LC50 values that are relevant for classification:

64742-48-9 Naphtha (petroleum), hydrotreated heavy

Oral	LD50	>5000 mg/kg (rat)
Dermal	LD50	>3000 mg/kg (rabbit)
Inhalative	LC50	>12 mg/l (rat)

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	LC50/4h	4951 mg/m3 (rat)
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- Primary irritant effect:
- on the skin: No irritant effect.
- on the eye: No irritating effect.
- Sensitization: No sensitizing effects known.
- Additional toxicological information: The product shows the following dangers according to internally approved calculation methods for preparations:

· Carcinogenic categories

· IARC (International Agency for Research on Cancer)
None of the ingredients is listed.

· NTP (National Toxicology Program)
None of the ingredients is listed.

12 Ecological information

· Toxicity

· Aquatic toxicity:

64742-48-9 Naphtha (petroleum), hydrotreated heavy

EC50	> 1000 mg/l (green alge)
	>1-<10 mg/l (bacteria)
	> 1000 mg/l (daphnia magna)
EL0/48h	1000 mg/l (daphnia magna)
EL50/72h	>1000 mg/l (Pseudokirchneriella subcapitata)
LC50	> 1000 mg/l (piscis)
LL50/96h	>1000 mg/l (Oncorhynchus mykiss)
	51 mg/l (rainbow trout)
NOELR/72h	100 mg/l (Pseudokirchneriella subcapitata)

- Persistence and degradability No further relevant information available.
- Other information: The product is difficultly biodegradable.
- **Behavior in environmental systems:**
- Bioaccumulative potential No further relevant information available.
- Mobility in soil No further relevant information available.
- **Additional ecological information:**
- General notes: Do not allow product to reach ground water, water course or sewage system.
Water hazard class 1 (Self-assessment): slightly hazardous for water
- **Results of PBT and vPvB assessment**
- PBT: Not applicable.
- vPvB: Not applicable.
- Other adverse effects No further relevant information available.

13 Disposal considerations

· Waste treatment methods

· Recommendation: Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

· Uncleaned packagings:

· Recommendation: Empty contaminated packagings thoroughly. They can be recycled after thorough and proper cleaning.

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· Recommended cleansing agent: Alcohol

14 Transport information

· **UN-Number**
· DOT, ADR, ADN, IMDG, IATA Void

· **UN proper shipping name**
· DOT, ADR, ADN, IMDG, IATA Void

· **Transport hazard class(es)**
· DOT, ADR, ADN, IMDG, IATA
· Class Void

· **Packing group**
· DOT, ADR, IMDG, IATA Void

· **Environmental hazards:**
· Marine pollutant: No

· **Special precautions for user** Not applicable.

· **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code** Not applicable.

· **Transport/Additional information:** Not dangerous according to the above specifications.

· **UN "Model Regulation":** -

15 Regulatory information

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

· Sara

· Section 355 (extremely hazardous substances):

None of the ingredient is listed.

· Section 313 (Specific toxic chemical listings):

None of the ingredients is listed.

· TSCA (Toxic Substances Control Act):

123-86-4 n-butyl acetate

64742-48-9 Naphtha (petroleum), hydrotreated heavy

· Proposition 65

· Chemicals known to cause cancer:

None of the ingredients is listed.

· Chemicals known to cause reproductive toxicity for females:

None of the ingredients is listed.

· Chemicals known to cause reproductive toxicity for males:

None of the ingredients is listed.

· Chemicals known to cause developmental toxicity:

None of the ingredients is listed.

· Carcinogenity categories

· EPA (Environmental Protection Agency)

None of the ingredients is listed.

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· TLV (Threshold Limit Value established by ACGIH)

None of the ingredients is listed.

· MAK (German Maximum Workplace Concentration)

None of the ingredients is listed.

· NIOSH-Ca (National Institute for Occupational Safety and Health)

None of the ingredients is listed.

· OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients is listed.

· GHS label elements

The product is classified and labeled according to the Globally Harmonized System (GHS).

· Hazard pictograms

GHS08

· Signal word

Danger

· Hazard-determining components of labeling:

Kohlenwasserstoffe, C11-C12, Isoalkane, <2% Aromaten
 Kohlenwasserstoffe, C11-C13, Isoalkane, <2% Aromaten
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 H227 Combustible liquid.

· Hazard statements

H304 May be fatal if swallowed and enters airways.

· Precautionary statements

P101 If medical advice is needed, have product container or label at hand.
 P102 Keep out of reach of children.
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 P260 Do not breathe mist/vapours/spray.
 P280 Wear protective gloves.
 P301+P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
 P304+P312 IF INHALED: Call a POISON CENTER or doctor/physician if you feel unwell.
 P302+P352 IF ON SKIN: Wash with plenty of soap and water.
 P405 Store locked up.
 P403+P235 Store in a well-ventilated place. Keep cool.
 P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

· National regulations:

· Information about limitation of use: Employment restrictions concerning young persons must be observed.
 Employment restrictions concerning pregnant and lactating women must be observed.

· Water hazard class:

Water hazard class 1 (Self-assessment): slightly hazardous for water.

· VOC USA

753.9 g/l / 6.29 lb/gl

· **Chemical safety assessment:**

A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Department issuing MSDS:** Laboratory
 · **Contact:** Dieter Zimmermann
 · **Date of preparation / last revision** 01/21/2014 / -

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Abbreviations and acronyms:

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
ICAO: International Civil Aviation Organization
ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
DOT: US Department of Transportation
IATA: International Air Transport Association
ACGIH: American Conference of Governmental Industrial Hygienists
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
NFPA: National Fire Protection Association (USA)
HMIS: Hazardous Materials Identification System (USA)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent

International Product Registration Status

USA (Toxic Substances Control Act, TSCA)
J (Existing and New Chemical Substance List, ENCS)

USA