

Safety Data Sheet

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



Trade name : Spray cans with SIGNO-Spray P and SIGNO Ex P
all colours
Revision date : 16.12.2020
Print date : 16.12.2020

Version (Revision) : 7.1.1 (7.1.0)

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

1.1 Product identifier

Spray cans with SIGNO-Spray P and SIGNO Ex P
all colours (15052000094040)
Unique Formula Identifier (UFI): 3F68-GS97-2YEW-14CF

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

Relevant identified uses

Industrial marking ink

1.3 Details of the supplier of the safety data sheet

Supplier (manufacturer/importer/only representative/downstream user/distributor)

Stefan Kupietz GmbH & Co. KG
Chemische Fabrik

Street : August-Wilhelm-Kühnholz-Str. 9

Postal code/city : 26135 Oldenburg

Telephone : +49(0)441/20 69 50

Telefax : +49(0)441 /20 69 520

Information contact : E-Mail: info@kupietz.de

1.4 Emergency telephone number

Poison emergency centre +49-551-19240

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

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

Aerosol 2 ; H223 - Aerosols : Category 2 ; Flammable aerosol.

Aerosol 2 ; H229 - Aerosols : Category 2 ; Pressurised container: May burst if heated.

Eye Irrit. 2 ; H319 - Serious eye damage/eye irritation : Category 2 ; Causes serious eye irritation.

Aquatic Chronic 2 ; H411 - Hazardous to the aquatic environment : Chronic 2 ; Toxic to aquatic life with long lasting effects.

2.2 Label elements

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

Hazard pictograms



Flame (GHS02) · Environment (GHS09) · Exclamation mark (GHS07)

Signal word

Warning

Hazard statements

H223 Flammable aerosol.
H229 Pressurised container: May burst if heated.
H319 Causes serious eye irritation.
H411 Toxic to aquatic life with long lasting effects.

Precautionary statements

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

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P211 Do not spray on an open flame or other ignition source.
P251 Do not pierce or burn, even after use.
P337+P313 If eye irritation persists: Get medical advice/attention.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.

2.3 Other hazards

None

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Hazardous ingredients

NAPHTHA (PETROLEUM), HYDROTREATED LIGHT ; REACH Registration No. : 01-2119475133-43-xxxx ; EC No. : 265-151-9; CAS No. : 64742-49-0

Weight fraction : < 35 %
Classification 1272/2008 [CLP] : Asp. Tox. 1 ; H304

CYCLOHEXANE ; REACH Registration No. : 01-2119463273-41-xxxx ; EC No. : 203-806-2; CAS No. : 110-82-7

Weight fraction : < 3 %
Classification 1272/2008 [CLP] : Flam. Liq. 2 ; H225 Asp. Tox. 1 ; H304 Skin Irrit. 2 ; H315 STOT SE 3 ; H336 Aquatic Acute 1 ; H400 Aquatic Chronic 1 ; H410

N-HEXANE ; REACH Registration No. : 01-2119480412-44-xxxx ; EC No. : 203-777-6; CAS No. : 110-54-3

Weight fraction : < 2,5 %
Classification 1272/2008 [CLP] : Flam. Liq. 2 ; H225 Asp. Tox. 1 ; H304 Repr. 2 ; H361f STOT RE 2 ; H373 Skin Irrit. 2 ; H315 STOT SE 3 ; H336 Aquatic Chronic 2 ; H411

Specific Conc. Limits : STOT RE 2 ; H373: C ≥ 5 %

BUTAN-1-OL ; REACH Registration No. : 01-2119484630-38-xxxx ; EC No. : 200-751-6; CAS No. : 71-36-3

Weight fraction : < 2,5 %
Classification 1272/2008 [CLP] : Flam. Liq. 3 ; H226 Eye Dam. 1 ; H318 Acute Tox. 4 ; H302 Skin Irrit. 2 ; H315 STOT SE 3 ; H335 STOT SE 3 ; H336

Additional information

Full text of H- and EUH-phrases: see section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General information

Immediately remove all contaminated clothing.

Following inhalation

Inhalation of aerosols or steam in high concentration: Provide fresh air.

In case of skin contact

Wash away with soap and water and rinse.

After eye contact

Flush with plenty of water (10 - 15 min.). Call a physician.

After ingestion

Drink plenty of water. Do NOT induce vomiting.

4.2 Most important symptoms and effects, both acute and delayed

No information available.

4.3 Indication of any immediate medical attention and special treatment needed

None

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SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

alcohol resistant foam , Carbon dioxide (CO₂) , Extinguishing powder or Water spray jet .

Unsuitable extinguishing media

Full water jet

5.2 Special hazards arising from the substance or mixture

Hazardous combustion products

In case of fire toxic gases may be formed.

5.3 Advice for firefighters

Special protective equipment for firefighters

In case of fire: Wear self-contained breathing apparatus.

5.4 Additional information

Cool endangered containers with water in case of fire.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Keep away from ignition sources on account of the organic solvent content and air room well. Do not inhale vapours.

6.2 Environmental precautions

If the product contaminates lakes, rivers or sewages, inform appropriate authorities in accordance with local regulations. Do not allow to enter into surface water or drains.

6.3 Methods and material for containment and cleaning up

For cleaning up

Remove mechanically, take-up residues with absorbing material.

6.4 Reference to other sections

None

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Normal precautions taken when handling chemicals should be observed.

Protective measures

Measures to prevent fire

Prevent the creation of inflammable or explosive concentrations of vapour in air and avoid vapour concentrations higher than the OEL (=Occupational Exposure Limit). Only use in locations with adequate suction ventilation. Additionally, the product should only be used in areas from which all naked lights and other sources of ignition have been excluded.

7.2 Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions

Do not leave vessels open, earth storage containers.

Hints on joint storage

Store the foodstuffs separately. Keep away from oxidizing agents, from strongly alkaline and strongly acid materials.

Storage class (TRGS 510) : 2B

Further information on storage conditions

Store containers tightly closed in a cool well ventilated place.

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7.3 Specific end use(s)

None

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limit values

BUTANE ; CAS No. : 106-97-8

Limit value type (country of origin) : TRGS 900 (D)
Limit value : 1000 ppm / 2400 mg/m³
Peak limitation : 4(II)
Version : 27.10.2020

PROPANE ; CAS No. : 74-98-6

Limit value type (country of origin) : TRGS 900 (D)
Limit value : 1000 ppm / 1800 mg/m³
Peak limitation : 4(II)
Version : 27.10.2020

CYCLOHEXANE ; CAS No. : 110-82-7

Limit value type (country of origin) : TRGS 900 (D)
Limit value : 200 ppm / 700 mg/m³
Peak limitation : 4(II)
Version : 27.10.2020

Limit value type (country of origin) : TWA (EC)
Limit value : 200 ppm / 700 mg/m³
Version : 20.06.2019

N-HEXANE ; CAS No. : 110-54-3

Limit value type (country of origin) : TRGS 900 (D)
Limit value : 50 ppm / 180 mg/m³
Peak limitation : 8(II)
Remark : Y
Version : 27.10.2020

Limit value type (country of origin) : TWA (EC)
Limit value : 20 ppm / 72 mg/m³
Version : 20.06.2019

BUTAN-1-OL ; CAS No. : 71-36-3

Limit value type (country of origin) : TRGS 900 (D)
Limit value : 100 ppm / 310 mg/m³
Peak limitation : 1(I)
Remark : Y
Version : 27.10.2020

Biological limit values

CYCLOHEXANE ; CAS No. : 110-82-7

Limit value type (country of origin) : TRGS 903 (D)
Parameter : 1,2-Cyclohexanediol / Urine (U) / End of exposure or end of shift ; At long term exposure:
after several previous shifts
Limit value : 150 mg/g Kr
Version : 13.03.2020

N-HEXANE ; CAS No. : 110-54-3

Limit value type (country of origin) : TRGS 903 (D)
Parameter : 2,5-Hexandione / Urine (U) / End of exposure or end of shift
Limit value : 5 mg/l
Version : 13.03.2020

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BUTAN-1-OL ; CAS No. : 71-36-3

Limit value type (country of origin) : TRGS 903 (D)
Parameter : 1-Butanol / Urine (U) / Before next shift
Limit value : 2 mg/g Kr
Version : 13.03.2020

Limit value type (country of origin) : TRGS 903 (D)
Parameter : 1-Butanol / Urine (U) / End of exposure or end of shift
Limit value : 10 mg/g Kr
Version : 13.03.2020

8.2 Exposure controls

Personal protection equipment

Eye/face protection

Use tightly fitting safety glasses.

Skin protection

Hand protection

Use protective butyl rubber gloves (0,5 mm). Permeation time of glove material: level \geq 240 min (4h) EN374

General information

The usual precautionary measures for the handling of chemicals have to be observed. Provide for good ventilation.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance : Aerosol

Colour : pigmented

Odour : characteristic

Safety characteristics

Physical state :

Liquid

Freezing point :

No data available

Initial boiling point and boiling range : (1013 hPa) ~

0 °C

Decomposition temperature : >

200 °C

Flash point : <

-20 °C

Brookfield

Auto-ignition temperature :

No data available

Lower explosion limit :

No data available

Upper explosion limit :

No data available

Vapour pressure : (50 °C) >

2000 hPa

Density : (20 °C) ~

0,8 g/cm³

Solvent separation test : (20 °C) <

3 %

Water solubility : (20 °C)

No data available

log P O/W :

No data available

Flow time : (20 °C) ~

15 s

DIN-cup 4 mm

Odour threshold :

No data available

Relative vapour density : (20 °C)

No data available

Vapourisation rate :

No data available

Flammable aerosols : No data available.

Oxidising liquids : No data available.

Explosive properties : No data available.

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9.2 Other information

The physical specifications are approximate values and refer to the used safety relevant component(s).

SECTION 10: Stability and reactivity

10.1 Reactivity

No information available.

10.2 Chemical stability

No information available.

10.3 Possibility of hazardous reactions

No information available.

10.4 Conditions to avoid

None, if handled according to order.

10.5 Incompatible materials

Keep away from oxidizing agents, strongly alkaline and strongly acid materials in order to avoid exothermic reactions. In connection with inorganic and organic acids, acid chlorides violent reactions can take place and CO₂ released. Formation of hydrogen by acids, lyes, moisture possible.

10.6 Hazardous decomposition products

No information available.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Acute oral toxicity

Parameter :	LD50 (CYCLOHEXANE ; CAS No. : 110-82-7)
Exposure route :	Oral
Species :	Mouse
Effective dose :	1,28 g/kg
Parameter :	LD50 (CYCLOHEXANE ; CAS No. : 110-82-7)
Exposure route :	Oral
Species :	Rat
Effective dose :	29,79 g/kg
Parameter :	LD50 (BUTAN-1-OL ; CAS No. : 71-36-3)
Exposure route :	Oral
Species :	Rat
Effective dose :	790 mg/kg

Acute dermal toxicity

Parameter :	LD50 (BUTAN-1-OL ; CAS No. : 71-36-3)
Exposure route :	Dermal
Species :	Rabbit
Effective dose :	4200 mg/kg

Acute inhalation toxicity

Parameter :	LC50 (BUTAN-1-OL ; CAS No. : 71-36-3)
Exposure route :	Inhalation
Species :	Rat
Effective dose :	8000 ppm

Practical experience/human evidence

This product is unlikely to harm health, given normal and proper handling and hygienic precautions. Prolonged inhalation of vapours in high concentrations may lead to headache, giddiness and nausea.

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SECTION 12: Ecological information

12.1 Toxicity

No information available.

12.2 Persistence and degradability

In case of appropriate conduction into adapted biological purification plants no disturbances have to be expected.

12.3 Bioaccumulative potential

No indication of bioaccumulation potential.

12.4 Mobility in soil

Very high mobility in soil with a negligible tendency to leave the sediment.

12.5 Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

12.6 Other adverse effects

No information available.

12.7 Additional ecotoxicological information

Do not empty into waters or drains.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Dispose according to legislation.

Directive 2008/98/EC (Waste Framework Directive)

Additional information

Contaminated packaging should be residue-free emptying. They can then be recycled after appropriate cleaning (Waste code 080112 contains no organic solvents). Contaminated packaging should be disposed of like the product. (Waste code 150110)

SECTION 14: Transport information

14.1 UN number

UN 1950

14.2 UN proper shipping name

Land transport (ADR/RID)

AEROSOLS

Sea transport (IMDG)

AEROSOLS (CYCLOHEXANE · N-HEXANE)

Air transport (ICAO-TI / IATA-DGR)

AEROSOLS, FLAMMABLE

14.3 Transport hazard class(es)

Land transport (ADR/RID)

Class(es) : 2
Classification code : 5F
Hazard identification number (Kemler No.) : 23
Tunnel restriction code : D
Special provisions : LQ 11 · E 0
Hazard label(s) : 2.1 / N

Sea transport (IMDG)

Class(es) : 2.1

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EmS-No. : F-D / S-U
Special provisions : LQ 1 I · E 0
Hazard label(s) : 2.1 / N
Air transport (ICAO-TI / IATA-DGR)
Class(es) : 2.1
Special provisions : E 0
Hazard label(s) : 2.1

14.4 Packing group

14.5 Environmental hazards

Land transport (ADR/RID) : Yes
Sea transport (IMDG) : Yes (P)
Air transport (ICAO-TI / IATA-DGR) : Yes

14.6 Special precautions for user

None

SECTION 15: Regulatory information

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

EU legislation

Authorisations and/or restrictions on use

Restrictions on use

Use restriction according to REACH annex XVII, no. : 3, 30, 40, 57

National regulations

Technische Anleitung Luft (TA-Luft)

Weight fraction (Number 5.2.5. I) : < 5 %

Water hazard class (WGK)

Classification according to AwsV - Class : 2 (Obviously hazardous to water)

15.2 Chemical safety assessment

No information available.

SECTION 16: Other information

16.1 Indication of changes

02. Label elements · 03. Hazardous ingredients

16.2 Abbreviations and acronyms

None

16.3 Key literature references and sources for data

None

16.4 Classification for mixtures and used evaluation method according to regulation (EC) No 1272/2008 [CLP]

See SECTION 2.1 (classification).

16.5 Relevant H- and EUH-phrases (Number and full text)

H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H318	Causes serious eye damage.

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H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H361f	Suspected of damaging fertility.
H373	May cause damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.

16.6 Training advice

None

16.7 Additional information

None

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.
