



Safety Data Sheet

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

RvK 3D ScanSpray

Version number: 3.0
Revision: 29.03.2023

Date of compilation: 29.03.2023

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

1.1 Product identifier

Trade name

3D ScanSpray

Other means of identification

1.2 Manufacturer/Supplier

R.v.Klier
Werkstoffprüftechnik
Hansaallee 190
40547 Düsseldorf

Telefon: 0211/5142453

Telefax: 0211/5143446

e-mail : info@rvklier.com

1.3 24 hours Emergency telephone number:

Notrufnummer Vergiftungs-Informationen-Zentrale Bonn: 0228 / 19240

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

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

Section	Hazard class	Hazard class and category	Hazard statement
2.3	Aerosols	Aerosol 1	H222,H229
3.3	Serious eye damage/eye irritation	Eye Irrit. 2	H319
3.8D	Specific target organ toxicity - single exposure (narcotic effects, drowsiness)	STOT SE 3	H336

Code	Supplemental hazard information
EUH066	Repeated exposure may cause skin dryness or cracking

Remarks

For full text of abbreviations: see SECTION 16

2.2 Label elements

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

Signal word

Danger

Pictograms

GHS02, GHS07



Hazard statements

H222 Extremely flammable aerosol.
H229 Pressurised container: May burst if heated.
H319 Causes serious eye irritation.
H336 May cause drowsiness or dizziness.

Precautionary statements

P101 If medical advice is needed, have product container or label at hand.
P102 Keep out of reach of children.

Safety Data Sheet

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

RvK 3D ScanSpray

Version number: 3.0
Revision: 29.03.2023

Date of compilation: 29.03.2023

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P211	Do not spray on an open flame or other ignition source.
P251	Do not pierce or burn, even after use.
P260	Do not breathe vapours/spray.
P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P305+P351+P338	IF IN EYES: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P312	Call a POISON CENTER/doctor if you feel unwell.
P337+P313	If eye irritation persists: Get medical advice/attention.
P410+P412	Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.
P501	Dispose of contents / container in accordance with national regulations of the disposal.

Additional labelling requirements

Buildup of explosive mixtures possible without sufficient ventilation.

Hazardous ingredients for labelling

Acetone
Propan-2-ol

2.3 Other hazards

Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

SECTION 3: Composition/information on ingredients

3.1 Substances

Not relevant (mixture).

3.2 Mixtures

Description of the mixture

Mixture of substances listed below with nonhazardous additions

Name of substance	Identifier	Wt%	Classification acc. to GHS	Pictograms
Butane	CAS No 106-97-8 EC No 203-448-7 Index No 601-004-00-0 REACH Reg. No 01-2119474691-32- xxxx	25 – < 50	Flam. Gas 1 / H220 Press. Gas L / H280	 
Acetone	CAS No 67-64-1 EC No 200-662-2 REACH Reg. No 01-2119471330-49- xxxx 01-2119498062-37- xxxx	10 – < 25	Flam. Liq. 2 / H225 Eye Irrit. 2 / H319 STOT SE 3 / H336	 
Propan-2-ol	CAS No 67-63-0 EC No 200-661-7 REACH Reg. No 01-2119457558-25- xxxx	10 – < 25	Flam. Liq. 2 / H225 Eye Irrit. 2 / H319 STOT SE 3 / H336	 

Safety Data Sheet

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

RvK 3D ScanSpray

Version number: 3.0
Revision: 29.03.2023

Date of compilation: 29.03.2023

Name of substance	Identifier	Wt%	Classification acc. to GHS	Pictograms
Propane	CAS No 74-98-6 EC No 200-827-9 REACH Reg. No 01-2119486944-21- xxxx	10 – < 25	Flam. Gas 1 / H220 Press. Gas L / H280	 
Isobutane	CAS No 75-28-5 EC No 200-857-2 REACH Reg. No 01-2119485395-27- xxxx	1 – < 5	Flam. Gas 1 / H220 Press. Gas L / H280	 

3.3 Remarks

For full text of abbreviations: see SECTION 16

SECTION 4: First aid measures

4.1 Description of first aid measures

General notes

Do not leave affected person unattended. Remove victim out of the danger area. Keep affected person warm, still and covered. Take off immediately all contaminated clothing. In all cases of doubt, or when symptoms persist, seek medical advice. In case of unconsciousness place person in the recovery position. Never give anything by mouth.

Following inhalation

If breathing is irregular or stopped, immediately seek medical assistance and start first aid actions. Provide fresh air.

Following skin contact

Wash with plenty of soap and water.

Following eye contact

Remove contact lenses, if present and easy to do. Continue rinsing. Irrigate copiously with clean, fresh water for at least 10 minutes, holding the eyelids apart.

Following ingestion

Rinse mouth with water (only if the person is conscious). Do NOT induce vomiting.

4.2 Most important symptoms and effects, both acute and delayed

Narcotic effects.

4.3 Indication of any immediate medical attention and special treatment needed

none

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

Water spray. BC-powder.

Unsuitable extinguishing media

Water jet.

5.2 Special hazards arising from the substance or mixture

In case of insufficient ventilation and/or in use, may form flammable/explosive vapour-air mixture.

Hazardous combustion products

Carbon monoxide (CO). Carbon dioxide (CO₂).

5.3 Advice for firefighters

In case of fire and/or explosion do not breathe fumes. Co-ordinate firefighting measures to the fire surroundings. Do not allow firefighting water to enter drains or water courses. Collect contaminated firefighting water separately. Fight fire with normal precautions from a reasonable distance.

Safety Data Sheet

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

RvK 3D ScanSpray

Version number: 3.0
Revision: 29.03.2023

Date of compilation: 29.03.2023

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Remove persons to safety.

For emergency responders

Wear breathing apparatus if exposed to vapours/dust/spray/gases.

6.2 Environmental precautions

Keep away from drains, surface and ground water. Retain contaminated washing water and dispose of it.

6.3 Methods and material for containment and cleaning up

Advice on how to contain a spill

Covering of drains.

Other information relating to spills and releases

Place in appropriate containers for disposal. Ventilate affected area.

6.4 Reference to other sections

Hazardous combustion products: see section 5. Personal protective equipment: see section 8. Incompatible materials: see section 10. Disposal considerations: see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Recommendations

Measures to prevent fire as well as aerosol and dust generation

Use local and general ventilation. Use only in well-ventilated areas.

Advice on general occupational hygiene

Wash hands after use. Do not eat, drink and smoke in work areas. Remove contaminated clothing and protective equipment before entering eating areas. Never keep food or drink in the vicinity of chemicals. Never place chemicals in containers that are normally used for food or drink. Keep away from food, drink and animal feedingstuffs.

7.2 Conditions for safe storage, including any incompatibilities

Managing of associated risks

Storage class (LGK)

2 B

• Flammability hazards

Do not spray on an open flame or other ignition source. Protect from sunlight.

Consideration of other advice

• Packaging compatibilities

Only packagings which are approved (e.g. acc. to ADR) may be used.

7.3 Specific end use(s)

No further relevant information available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

National limit values

Occupational exposure limit values (Workplace Exposure Limits)								
Country	Name of agent	CAS No	Identifier	TWA [ppm]	TWA [mg/m³]	STEL [ppm]	STEL [mg/m³]	Source
DE	Butane	106-97-8	AGW	1.000	2.400	4.000	9.600	TRGS 900
DE	Propan-2-ol	67-63-0	AGW	200	500	400	1.000	TRGS 900
DE	Acetone	67-64-1	AGW	500	1.200	1.000	2.400	TRGS 900
DE	Propane	74-98-6	AGW	1.000	1.800	4.000	7.200	TRGS 900

Safety Data Sheet

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

RvK 3D ScanSpray

Version number: 3.0
Revision: 29.03.2023

Date of compilation: 29.03.2023

Occupational exposure limit values (Workplace Exposure Limits)

Country	Name of agent	CAS No	Identifier	TWA [ppm]	TWA [mg/m ³]	STEL [ppm]	STEL [mg/m ³]	Source
DE	Isobutane	75-28-5	AGW	1.000	2.400	4.000	9.600	TRGS 900
EU	Acetone	67-64-1	IOELV	500	1.210			2000/39/EC

Notation

STEL Short-term exposure limit: a limit value above which exposure should not occur and which is related to a 15-minute period (unless otherwise specified)
TWA Time-weighted average (long-term exposure limit): measured or calculated in relation to a reference period of 8 hours time-weighted average (unless otherwise specified)

Biological limit values

Biological limit values

Country	Name of agent	Parameter	Notation	Identifier	Value	Source
DE	2-Propanol	Acetone		BLV	25 mg/l	TRGS 903
DE	Acetone	Acetone		BLV	80 mg/l	TRGS 903

Relevant DNELs/DMELs/PNECs and other threshold levels

Relevant PNECs of components of the mixture

Relevant PNECs of components of the mixture

Name of substance	CAS No	End-point	Threshold level	Organism	Environmental compartment	Exposure time
Acetone	67-64-1	PNEC	100 mg/l	Microorganisms	Sewage treatment plant (STP)	Short-term (single instance)
Acetone	67-64-1	PNEC	21 mg/l	Aquatic organisms	Water	Intermittent release
Propan-2-ol	67-63-0	PNEC	2.251 mg/l	Microorganisms	Sewage treatment plant (STP)	Short-term (single instance)
Propan-2-ol	67-63-0	PNEC	160 mg/kg	Aquatic organisms	Water	Short-term (single instance)

8.2 Exposure controls

Appropriate engineering controls

General ventilation.

Individual protection measures (personal protective equipment)

Eye/face protection

Do not spray in eyes. If required use tight-fitting goggles.

Skin protection

Hand protection

Wear suitable gloves. Chemical protection gloves are suitable, which are tested according to EN 374.

Type of material

PVC: polyvinyl chloride.

Material thickness

> 0,7 mm

Other protection measures

Take recovery periods for skin regeneration. Preventive skin protection (barrier creams/ointments) is recommended. Wash hands thoroughly after handling.

Safety Data Sheet

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

RvK 3D ScanSpray

Version number: 3.0
Revision: 29.03.2023

Date of compilation: 29.03.2023

Respiratory protection

Operate if possible out of doors or in a well-ventilated place. In case of inadequate ventilation wear respiratory protection. Type: A-P2 (combined filters against particles and organic gases and vapours, colour code: Brown/White).

Environmental exposure controls

Use appropriate container to avoid environmental contamination. Keep away from drains, surface and ground water.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

Physical state	Aerosol (Spray aerosol)
Colour	White
Odour	Solvent like

Other safety parameters

Initial boiling point and boiling range	Not applicable, as aerosol.*
Flash point	Not applicable, as aerosol.*
Flammability (solid, gas)	Flammable aerosol in accordance with GHS criteria
Explosive limits	
• Lower explosion limit (LEL)	2 vol%
• Upper explosion limit (UEL)	15 vol%
Vapour pressure	4 bar at 20 °C
	7 bar at 50 °C
Density	0,64 g/cm³ at 20 °C
Water solubility	Partly soluble
Viscosity	Not relevant (Aerosol)

9.2 Other information

* The finished mixture in an aerosol container is formed after addition of propellant. Several details are not measurable in an hermetic closed, pressurized container.

SECTION 10: Stability and reactivity

10.1 Reactivity

Concerning incompatibility: see below "Conditions to avoid" and "Incompatible materials". The mixture contains reactive substance(s). Risk of ignition.

10.2 Chemical stability

See below "Conditions to avoid".

10.3 Possibility of hazardous reactions

No known hazardous reactions.

10.4 Conditions to avoid

Do not spray on an open flame or other ignition source. Keep away from heat.

Hints to prevent fire or explosion

Protect from sunlight.

Physical stresses which might result in a hazardous situation and have to be avoided

High temperatures.

10.5 Incompatible materials

Oxidisers.

10.6 Hazardous decomposition products

Reasonably anticipated hazardous decomposition products produced as a result of use, storage, spill and heating are not known. Hazardous combustion products: see section 5.

Safety Data Sheet

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

RvK 3D ScanSpray

Version number: 3.0
Revision: 29.03.2023

Date of compilation: 29.03.2023

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Test data are not available for the complete mixture.

Classification procedure

The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

Classification according to GHS (1272/2008/EC, CLP)

Acute toxicity

Shall not be classified as acutely toxic.

Skin corrosion/irritation

Shall not be classified as corrosive/irritant to skin.

Serious eye damage/eye irritation

Causes serious eye irritation.

Respiratory or skin sensitisation

Shall not be classified as a respiratory or skin sensitiser.

Germ cell mutagenicity

Shall not be classified as germ cell mutagenic.

Carcinogenicity

Shall not be classified as carcinogenic.

Reproductive toxicity

Shall not be classified as a reproductive toxicant.

• Specific target organ toxicity - single exposure

May cause drowsiness or dizziness.

• Specific target organ toxicity - repeated exposure

Shall not be classified as a specific target organ toxicant (repeated exposure).

Aspiration hazard

Shall not be classified as presenting an aspiration hazard.

Other information

Repeated exposure may cause skin dryness or cracking.

SECTION 12: Ecological information

12.1 Toxicity

Shall not be classified as hazardous to the aquatic environment.

Ordinance on systems for handling water-polluting substances (Ordinance on facilities for handling substances hazardous to water) (AwSV): WGK (Germany) 1, slightly hazardous to water

12.2 Persistence and degradability

Data are not available.

12.3 Bioaccumulative potential

Data are not available.

12.4 Mobility in soil

Data are not available.

12.5 Results of PBT and vPvB assessment

Data are not available.

12.6 Other adverse effects

Endocrine disrupting potential

None of the ingredients are listed.

Safety Data Sheet

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

RvK 3D ScanSpray

Version number: 3.0
Revision: 29.03.2023

Date of compilation: 29.03.2023

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Sewage disposal-relevant information

Do not empty into drains. Avoid release to the environment. Refer to special instructions/safety data sheets.

Waste treatment of containers/packagings

It is a dangerous waste; only packagings which are approved (e.g. acc. to ADR) may be used. Completely emptied packages can be re-cycled. Handle contaminated packages in the same way as the substance itself.

Relevant provisions relating to waste

List of wastes

15 01 04 Metallic packaging

15 01 10 Packaging containing residues of or contaminated by dangerous substances

16 05 04 Containing hazardous gases in pressure containers (including halons)

Remarks

Please consider the relevant national or regional provisions. Waste shall be separated into the categories that can be handled separately by the local or national waste management facilities.

SECTION 14: Transport information

14.1	UN number	1950
14.2	UN proper shipping name	AEROSOLS
14.3	Transport hazard class(es)	
	Class	2 (Gases) (Aerosol)
	Subsidiary risk(s)	2.1 (Flammable)
14.4	Packing group	Not assigned to a packing group
14.5	Environmental hazards	Non-environmentally hazardous acc. to the dangerous goods regulations
14.6	Special precautions for user	
	Provisions for dangerous goods (ADR) should be complied within the premises.	
14.7	Transport in bulk according to Annex II of MARPOL and the IBC Code	
	The cargo is not intended to be carried in bulk.	

Information for each of the UN Model Regulations

Transport of dangerous goods by road, rail and inland waterway (ADR/RID/ADN)

UN number	1950
Proper shipping name	AEROSOLS
Class	2
Classification code	5F
Danger label(s)	2.1



Special provisions (SP)	190, 327, 344, 625
Excepted quantities (EQ)	E0
Limited quantities (LQ)	1 L
Transport category (TC)	2
Tunnel restriction code (TRC)	D

International Maritime Dangerous Goods Code (IMDG)

UN number	1950
Proper shipping name	AEROSOLS
Class	2.1
Marine pollutant	-
Danger label(s)	2.1



Special provisions (SP)	63, 190, 277, 327, 344, 381, 959
Excepted quantities (EQ)	E0
Limited quantities (LQ)	1 L
EmS	F-D, S-U

Safety Data Sheet

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

RvK 3D ScanSpray

Version number: 3.0
Revision: 29.03.2023

Date of compilation: 29.03.2023

Stowage category -
International Civil Aviation Organization (ICAO-IATA/DGR)
UN number 1950
Proper shipping name Aerosols, flammable
Class 2.1
Danger label(s) 2.1



Special provisions (SP) A145, A167
Exempted quantities (EQ) E0
Limited quantities (LQ) 30 kg

SECTION 15: Regulatory information

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

Relevant provisions of the European Union (EU)

Restrictions according to REACH, Annex XVII

none of the ingredients are listed

List of substances subject to authorisation (REACH, Annex XIV)/SVHC - candidate list

none of the ingredients are listed

Directive 75/324/EEC relating to aerosol dispensers

Classification of the gas/aerosol Extremely flammable

Labelling

Keep out of reach of children. Pressurized container: may burst if heated. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not pierce or burn, even after use. Protect from sunlight. Do not expose to temperatures exceeding 50 °C.

Directive on industrial emissions (VOCs, 2010/75/EU)

VOC content 94,69 %

Directive 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS) - Annex II

none of the ingredients are listed

Regulation 166/2006/EC concerning the establishment of a European Pollutant Release and Transfer Register (PRTR)

none of the ingredients are listed

Directive 2000/60/EC establishing a framework for Community action in the field of water policy (WFD)

none of the ingredients are listed

National regulations (Germany)

Ordinance on systems for handling water-polluting substances (Ordinance on facilities for handling substances hazardous to water)(AwSV)

Water hazard class 1 (slightly hazardous to water)

Technical instructions on air quality control (Germany)

Number	Group of substances	Class	Conc.	Mass flow	Mass concentration	Notation
5.2.5	Organic substances		≥ 25 wt%	0,5 kg/h	50 mg/m ³	3)

Notation

3) A total mass flow of 0.50 kg/h or a total mass concentration of 50 mg/m³, each of which to be indicated as total carbon, shall not be exceeded (except organic particulate matter)

Storage of hazardous substances in non-stationary containers (TRGS 510) (Germany)

Storage class (LGK) 2 B (Aerosol dispensers and lighters)

National inventories

Country	Inventory	Status
EU	REACH Reg.	Not all ingredients are listed

Legend

REACH Reg. REACH registered substances

15.2 Chemical Safety Assessment

Chemical safety assessments for substances in this mixture were not carried out.

Safety Data Sheet

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

RvK 3D ScanSpray

Version number: 3.0
Revision: 29.03.2023

Date of compilation: 29.03.2023

SECTION 16: Other information

Abbreviations and acronyms

2000/39/EC	Commission Directive establishing a first list of indicative occupational exposure limit values in implementation of Council Directive 98/24/EC.
ADN	Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieures (European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways).
ADR	Accord européen relatif au transport international des marchandises dangereuses par route (European Agreement concerning the International Carriage of Dangerous Goods by Road).
AGW	Workplace exposure limit.
CAS	Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances).
CLP	Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures.
DGR	Dangerous Goods Regulations (see IATA/DGR).
DMEL	Derived Minimal Effect Level.
DNEL	Derived No-Effect Level.
EC No	The EC Inventory (EINECS, ELINCS and the NLP-list) is the source for the seven-digit EC number, an identifier of substances commercially available within the EU (European Union).
EINECS	European Inventory of Existing Commercial Chemical Substances.
ELINCS	European List of Notified Chemical Substances.
EmS	Emergency Schedule.
Eye Dam.	Seriously damaging to the eye.
Eye Irrit.	Irritant to the eye.
Flam. Gas	Flammable gas.
Flam. Liq.	Flammable liquid.
GHS	"Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations.
IATA	International Air Transport Association.
IATA/DGR	Dangerous Goods Regulations (DGR) for the air transport (IATA).
ICAO	International Civil Aviation Organization.
IMDG	International Maritime Dangerous Goods Code.
Index No	The Index number is the identification code given to the substance in Part 3 of Annex VI to Regulation (EC) No 1272/2008.
IOELV	Indicative occupational exposure limit value.
LGK	Lagerklasse (storage class according to TRGS 510, Germany).
MARPOL	International Convention for the Prevention of Pollution from Ships (abbr. of "Marine Pollutant").
NLP	No-Longer Polymer.
PBT	Persistent, Bioaccumulative and Toxic.
PNEC	Predicted No-Effect Concentration.
Ppm	Parts per million.
Press. Gas	Gas under pressure.
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals.
RID	Règlement concernant le transport International ferroviaire des marchandises Dangereuses (Regulations concerning the International carriage of Dangerous goods by Rail).
STEL	Short-term exposure limit.
STOT SE	Specific target organ toxicity - single exposure.
SVHC	Substance of Very High Concern.
TRGS	Technische Regeln für Gefahrstoffe (technical rules for hazardous substances, Germany).
TRGS 900	Arbeitsplatzgrenzwerte (TRGS 900).
TRGS 903	Biologische Grenzwerte (TRGS 903).
TWA	Time-weighted average.
VOC	Volatile Organic Compounds.
VPvB	Very Persistent and very Bioaccumulative.

Key literature references and sources for data

Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures.

Regulation (EC) No. 1907/2006 (REACH), amended by 2015/830/EU.

Transport of dangerous goods by road, rail and inland waterway (ADR/RID/ADN).

International Maritime Dangerous Goods Code (IMDG).

Dangerous Goods Regulations (DGR) for the air transport (IATA).

Classification procedure

Physical and chemical properties. The classification is based on tested mixture.

Health hazards. The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

List of relevant phrases (code and full text as stated in chapter 2 and 3)

H220	Extremely flammable gas.
H222	Extremely flammable aerosol.
H225	Highly flammable liquid and vapour.
H229	Pressurised container: May burst if heated.
H280	Contains gas under pressure; may explode if heated.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.

Disclaimer

This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product.