

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



Trade name : Keramikspray
Revision date : 13.02.2016
Print date : 22.03.2016

Version (Revision) : 4.0.1 (4.0.0)

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

1.1 Product identifier

Welding Ceramic Coating Spray
42,0510,0236; 42,0510,0237

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

Welding and soldering products (with flux coatings or flux cores), flux products

1.3 Details of the supplier of the safety data sheet

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

Fronius International GmbH

Street : Fronius Straße 5

Postal code/city : A-4642 Sattledt

Telephone : +43 (0)7242 241-0

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Internet: www.fronius.com

Information contact : msds.techsupport@fronius.com, welding.techsupport@fronius.com

Office hours:

Mon – Thu: 08:00 – 16:30

Fri: 08:00 – 12:00

1.4 Emergency telephone number

+44 (0) 20 76 35 91 91 during normal office hours

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

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

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

Aerosol 1 ; H222 - Flammable aerosols : Category 1 ; Extremely flammable aerosol.

Aerosol 1 ; H229 - Flammable aerosols : Category 1 ; Pressurised container: May burst if heated.

STOT SE 3 ; H336 - STOT-single exposure : Category 3 ; May cause drowsiness or dizziness.

2.2 Label elements

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

Hazard pictograms



Flame (GHS02) · Exclamation mark (GHS07)

Signal word

Danger

Hazard components for labelling

ACETONE ; CAS No. : 67-64-1

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

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

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P211 smoking.
Do not spray on an open flame or other ignition source.
P251 Do not pierce or burn, even after use.
P312 Call a POISON CENTER/doctor/.../ if you feel unwell.
P337+P313 If eye irritation persists: Get medical advice/attention.
P403+P233 Store in a well-ventilated place. Keep container tightly closed.
P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F.

Supplemental Hazard information (EU)

EUH066 Repeated exposure may cause skin dryness or cracking.

2.3 Other hazards

None

SECTION 3: Composition / information on ingredients

3.2 Mixtures

Hazardous ingredients

ETHANOL ; REACH registration No. : 01-2119457610-43-XXXX ; EC No. : 200-578-6; CAS No. : 64-17-5

Weight fraction : $\geq 25 - < 50$ %

Classification 1272/2008 [CLP] : Flam. Liq. 2 ; H225 Eye Irrit. 2 ; H319

ACETONE ; REACH registration No. : 01-2119471330-49-XXXX ; EC No. : 200-662-2; CAS No. : 67-64-1

Weight fraction : $\geq 25 - < 50$ %

Classification 1272/2008 [CLP] : Flam. Liq. 2 ; H225 Eye Irrit. 2 ; H319 STOT SE 3 ; H336

GASES (PETROLEUM), C3-4 ; EC No. : 268-629-5; CAS No. : 68131-75-9

Weight fraction : $\geq 25 - < 50$ %

Classification 1272/2008 [CLP] : Flam. Gas 1 ; H220

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

When in doubt or if symptoms are observed, get medical advice.

Following inhalation

In case of inhaling spray mist, consult a doctor immediately and show him packing or label. Provide fresh air.

In case of skin contact

After contact with skin, wash immediately with plenty of water and soap. In case of skin irritation, consult a physician.

After eye contact

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately.

After ingestion

Do NOT induce vomiting. If accidentally swallowed rinse the mouth with plenty of water (only if the person is conscious) and obtain immediate medical attention.

4.2 Most important symptoms and effects, both acute and delayed

Vapours may cause drowsiness and dizziness. Causes serious eye irritation.

4.3 Indication of any immediate medical attention and special treatment needed

None

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

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Foam Dry extinguishing powder Carbon dioxide (CO₂)

Unsuitable extinguishing media

Strong water jet

5.2 Special hazards arising from the substance or mixture

P375 - Fight fire remotely due to the risk of explosion.

5.3 Advice for firefighters

Special protective equipment for firefighters

Wear a self-contained breathing apparatus and chemical protective clothing.

5.4 Additional information

Use water spray jet to protect personnel and to cool endangered containers. Move undamaged containers from immediate hazard area if it can be done safely.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Remove all sources of ignition. 24/25 - Avoid contact with skin and eyes.

6.2 Environmental precautions

Do not allow to enter into surface water or drains.

6.3 Methods and material for containment and cleaning up

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents).

6.4 Reference to other sections

Safe handling: see section 7

Personal protection equipment: see section 8

Disposal: see section 13

SECTION 7: Handling and storage

7.1 Precautions for safe handling

All work processes must always be designed so that the following is excluded: Inhalation of vapours or spray/mists
Provide fresh air. Avoid contact with skin, eyes and clothes.

7.2 Conditions for safe storage, including any incompatibilities

Hints on joint storage

Storage class (TRGS 510) : 2B

Keep away from

Food and feedingstuffs

Do not spray on a naked flame or any incandescent material. Keep away from sources of ignition - No smoking. Keep out of the reach of children.

Further information on storage conditions

Protect against : Frost Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C. Do not pierce or burn, even after use.

7.3 Specific end use(s)

Observe technical data sheet. Observe instructions for use.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limit values

ETHANOL ; CAS No. : 64-17-5

Limit value type (country of origin) : TRGS 900 (D)

Limit value : 500 ppm / 960 mg/m³

Peak limitation : 2(II)

Remark : Y

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Version : 02.04.2014
ACETONE ; CAS No. : 67-64-1
Limit value type (country of origin) : TRGS 900 (D)
Limit value : 500 ppm / 1200 mg/m³
Peak limitation : 2(l)
Version : 02.04.2014
Limit value type (country of origin) : TWA (EC)
Limit value : 500 ppm / 1210 mg/m³
Version : 08.06.2000

Biological limit values

ACETONE ; CAS No. : 67-64-1
Limit value type (country of origin) : TRGS 903 (D)
Parameter : Acetone / Urine (U) / End of exposure or end of shift
Limit value : 80 mg/l
Version : 31.03.2004

DNEL/DMEL and PNEC values

DNEL/DMEL

Limit value type : DNEL worker (local) (ETHANOL ; CAS No. : 64-17-5)
Exposure route : Inhalation
Exposure frequency : Short-term (acute)
Limit value : 1900 mg/m³
Limit value type : DNEL worker (local) (ACETONE ; CAS No. : 67-64-1)
Exposure route : Inhalation
Exposure frequency : Short-term (acute)
Limit value : 2420 mg/m³
Limit value type : DNEL worker (systemic) (ACETONE ; CAS No. : 67-64-1)
Exposure route : Inhalation
Exposure frequency : Long-term (repeated)
Limit value : 1210 mg/m³
Limit value type : DNEL worker (systemic) (ETHANOL ; CAS No. : 64-17-5)
Exposure route : Inhalation
Exposure frequency : Long-term (repeated)
Limit value : 950 mg/m³
Limit value type : DNEL worker (systemic) (ETHANOL ; CAS No. : 64-17-5)
Exposure route : Dermal
Exposure frequency : Long-term (repeated)
Limit value : 343 mg/kg
Limit value type : DNEL worker (systemic) (ACETONE ; CAS No. : 67-64-1)
Exposure route : Dermal
Exposure frequency : Long-term (repeated)
Limit value : 186 mg/m³

8.2 Exposure controls

Personal protection equipment

Eye/face protection



Wear suitable safety goggles in case of splash.

Suitable eye protection

Safety goggles acc. EN 166.

Skin protection

Hand protection

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Wear protective gloves in case of longer lasting skin contact.

Suitable gloves type : EN 374.

Remark : The exact break through time has to be requested from the protective glove manufacturer and limits has to be ensured.

Respiratory protection



Respiratory protection necessary at: exceeding exposure limit values

Suitable respiratory protection apparatus

Combination filtering device (EN 14387)

Remark

Observe the wear time limits according GefStoffV in combination with the rules for using respiratory protection apparatus (BGR 190).

General health and safety measures

When using do not eat, drink, smoke, sniff.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance : Aerosol

Colour : white

Odour : characteristic

Safety relevant basis data

Flash point :	ca.	-100 °C
Ignition temperature :		410 °C
Lower explosion limit :	ca.	1 Vol-%
Upper explosion limit :	ca.	6 Vol-%
Vapour pressure :	(50 °C)	No data available
Density :	(20 °C)	ca. 0,8 - 0,9 g/cm ³
pH :		not applicable
Maximum VOC content (EC) :		88 Wt %
Maximum VOC content (Switzerland) :		88 Wt %
VOC-value :		748 g/l

9.2 Other information

None

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

Aerosol Keep away from sources of ignition. - No smoking. Do not expose to temperatures above 50 °C. Keep away from sources of heat (e.g. hot surfaces), sparks and open flames.

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10.5 Incompatible materials

Reaction with oxidizing agents possible.

10.6 Hazardous decomposition products

No information available.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute effects

Acute oral toxicity

Parameter : ATEmix calculated
Exposure route : Oral
Effective dose : > 2000 mg/kg
Parameter : LD50 (ETHANOL ; CAS No. : 64-17-5)
Exposure route : Oral
Species : Rat
Effective dose : 10470 mg/kg
Method : OECD 401
Parameter : LD50 (ACETONE ; CAS No. : 67-64-1)
Exposure route : Oral
Species : Rat
Effective dose : > 2000 mg/kg

Acute dermal toxicity

Parameter : ATEmix calculated
Exposure route : Dermal
Effective dose : > 2000 mg/kg
Parameter : LD50 (ETHANOL ; CAS No. : 64-17-5)
Exposure route : Dermal
Species : Rabbit
Effective dose : 20 g/kg
Parameter : LD50 (ACETONE ; CAS No. : 67-64-1)
Exposure route : Dermal
Species : Rabbit
Effective dose : > 7426 mg/kg

Acute inhalation toxicity

Parameter : ATEmix calculated
Exposure route : Inhalation
Effective dose : > 20 mg/m³
Parameter : LC50 (ETHANOL ; CAS No. : 64-17-5)
Exposure route : Inhalation
Species : Rat
Effective dose : 116,9 - 133,8 mg/l
Exposure time : 4 h
Method : OECD 403
Parameter : LC50 (ACETONE ; CAS No. : 67-64-1)
Exposure route : Inhalation
Species : Rat
Effective dose : 55700 ppm
Exposure time : 3 h

11.2 Toxicokinetics, metabolism and distribution

There are no data available on the preparation/mixture itself.

11.4 Other adverse effects

May cause drowsiness or dizziness. Frequently or prolonged contact with skin may cause dermal irritation.

11.5 Additional information

None

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SECTION 12: Ecological information

12.1 Toxicity

Aquatic toxicity

Acute (short-term) fish toxicity

Parameter : LC50 (ETHANOL ; CAS No. : 64-17-5)
Species : Pimephales promelas (fathead minnow)
Evaluation parameter : Acute (short-term) fish toxicity
Effective dose : 14,2 g/l
Exposure time : 96 h

Parameter : LC50 (ACETONE ; CAS No. : 67-64-1)
Species : Pimephales promelas (fathead minnow)
Evaluation parameter : Acute (short-term) fish toxicity
Effective dose : 6210 - 8120 mg/l
Exposure time : 96 h

Method : OECD 203
Parameter : LC50 (ACETONE ; CAS No. : 67-64-1)
Species : Daphnia pulex (water flea)
Evaluation parameter : Acute (short-term) daphnia toxicity
Effective dose : 8850 mg/l
Exposure time : 48 h

Parameter : LC50 (ETHANOL ; CAS No. : 64-17-5)
Species : Fish
Evaluation parameter : Chronic (long-term) fish toxicity
Effective dose : 9164 - 14536 mg/l
Exposure time : 200 h

Parameter : LC50 (ETHANOL ; CAS No. : 64-17-5)
Species : Daphnia
Evaluation parameter : Chronic (long-term) daphnia toxicity
Effective dose : 1806 mg/l
Exposure time : 10 d

Chronic (long-term) fish toxicity

Parameter : LOEC (ACETONE ; CAS No. : 67-64-1)
Species : Daphnia magna (Big water flea)
Evaluation parameter : Chronic (long-term) daphnia toxicity
Effective dose : > 79 mg/l
Exposure time : 21 d
Method : OECD 211

Acute (short-term) daphnia toxicity

Parameter : EC50 (ETHANOL ; CAS No. : 64-17-5)
Species : Daphnia
Evaluation parameter : Acute (short-term) daphnia toxicity
Effective dose : 5012 mg/l
Exposure time : 48 h

Acute (short-term) algae toxicity

Parameter : EC50 (ETHANOL ; CAS No. : 64-17-5)
Species : Chlorella vulgaris
Evaluation parameter : Acute (short-term) fish toxicity
Effective dose : 675 mg/l
Exposure time : 4 d
Method : OECD 201
Parameter : EC50 (ACETONE ; CAS No. : 67-64-1)
Species : Algae
Effective dose : 530 mg/l
Exposure time : 8 d

Bacteria toxicity

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Parameter : EC50 (ETHANOL ; CAS No. : 64-17-5)
Species : Bacteria toxicity
Effective dose : 5,8 g/l
Exposure time : 4 h
Parameter : EC50 (ACETONE ; CAS No. : 67-64-1)
Species : Bacteria toxicity
Effective dose : 61,5 g/l
Exposure time : 30 min

12.2 Persistence and degradability

Biodegradation

Parameter : Biodegradation (ETHANOL ; CAS No. : 64-17-5)
Inoculum : Biodegradation
Evaluation parameter : Aerobic
Effective dose : ca. 84 %
Exposure time : 20 d
Evaluation : Readily biodegradable (according to OECD criteria).
Parameter : DOC reduction (ACETONE ; CAS No. : 67-64-1)
Effective dose : > 70 %
Evaluation : Readily biodegradable (according to OECD criteria).

12.3 Bioaccumulative potential

No indication of bioaccumulation potential.

12.4 Mobility in soil

No information available.

12.5 Results of PBT and vPvB assessment

This substance does not meet the PBT/vPvB criteria of REACH, annex XIII.

12.6 Other adverse effects

No information available.

12.7 Additional ecotoxicological information

None

SECTION 13: Disposal considerations

The waste codes are recommendations based on the schedule use of this product. Owing to the user's specific conditions for use and disposal, other waste codes may be allocated under certain circumstances.

13.1 Waste treatment methods

Product/Packaging disposal

Waste codes/waste designations according to EWC/AVV

Waste code product

16 05 04* - gases in pressure containers (including halons) containing dangerous substances.

Waste code packaging

15 01 04 - metallic packaging.

15 01 01 - paper and cardboard packaging.

Waste treatment options

Appropriate disposal / Package

Contaminated packaging must be emptied of all residues and, following appropriate cleaning, may be sent to a recycling plant. Uncleaned packaging must be disposed of in the same manner as the medium.

13.2 Additional information

These codes are assigned based upon the most common uses for this material and may not reflect contaminants resulting from actual use.

SECTION 14: Transport information

14.1 UN number

UN 1950

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14.2 UN proper shipping name

Land transport (ADR/RID)

AEROSOLS

Sea transport (IMDG)

AEROSOLS

Air transport (ICAO-TI / IATA-DGR)

AEROSOLS, FLAMMABLE

14.3 Transport hazard class(es)

Land transport (ADR/RID)

Class(es) : 2
Classification code : 5F
Tunnel restriction code : D
Special provisions : LQ 2 · LQ 11 · E 0
Hazard label(s) :



2.1

Sea transport (IMDG)

Class(es) : 2.1
EmS-No. : F-D / S-U
Special provisions : LQ 11 · E 0
Hazard label(s) :



2.1

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) : No
Sea transport (IMDG) : No
Air transport (ICAO-TI / IATA-DGR) : No

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

National regulations

AT: Labelling according to Austrian regulations (Chemikaliengesetz/ChemV).
CH: Chemikalienverordnung (ChemV) and Chemikalien-Risikoreduktions-Verordnung (Chem RRV) are complied.

Restrictions of occupation

Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.
Observe restrictions to employment for juvenils according to the 'juvenile work protection guideline' (94/33/EC).

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Water hazard class (WGK)

Class : 1 (Slightly hazardous to water) Classification according to VwVwS

Other regulations, restrictions and prohibition regulations

Betriebsicherheitsverordnung (BetrSichV)

No flammable liquid according to BetrSichV.

15.2 Chemical Safety Assessment

For this substance a chemical safety assessment has not been carried out.

SECTION 16: Other information

16.1 Indication of changes

None

16.2 Abbreviations and acronyms

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

AOX: adsorbable organohalogenes

CAS: Chemical Abstracts Service (division of the American Chemical Society)

CLP: Classification Labelling and Packaging (Regulation (EC) No. 1272/2008)

EAK / AVV: europäischer Abfallschlüsselkatalog (european waste catalogue)

EINECS: European Inventory of Existing Commercial Chemical Substances

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

IATA: International Air Transport Association

ICAO: International Civil Aviation Organization

IMDG: International Maritime Code for Dangerous Goods

RCP: reciprocal calculation procedure

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

TRGS: Technische Regel für den Umgang mit Gefahrstoffen

VbF: Verordnung über brennbare Flüssigkeiten

VOC: volatile organic compound

VwVwS: Verwaltungsvorschrift wassergefährdender Stoffe

WGK: Wassergefährdungsklasse (water hazardous class)

16.3 Key literature references and sources for data

DGUV: GESTIS-Stoffdatenbank

ECHA: Classification And Labelling Inventory

ECHA: Registered Substances

ECHA: Registered Substances

EC Safety Data Sheet of Suppliers

ESIS: European Chemical Substances Information System

GDL: Gefahrstoffdatenbank der Länder

UBA Rigoletto: Wassergefährdende Stoffe

16.4 Classification for mixtures and used evaluation method according to regulation (EC) 1272/2008 [CLP]

No information available.

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

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

16.6 Training advice

None

16.7 Additional information

None

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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.
