

SAFETY DATA SHEET

SOLKATHERM® SES 36

Revision Date 28.10.2021

SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1 Product identifier**

- Trade name SOLKATHERM® SES 36
- Chemical name 1,1,1,3,3-Pentafluorobutane (= HFC-365mfc) / 1-Propene, 1,1,2,3,3,3-hexafluoro-, oxidized, polymd. (= Galden® HT55)

1.2 Relevant identified uses of the substance or mixture and uses advised against**Uses of the Substance/Mixture**

- Heat transfer medium
- Refrigerant
- Solvent

1.3 Details of the supplier of the safety data sheet**Company**

SOLVAY FRANCE S.A.
RUE DE LA HAIE COQ 52
93300 AUBERVILLIERS
+33 1 49376262

E-mail address

manager.sds@solvay.com



5 place de l'Eglise
74400 Saint Thibault des Vignes
France

+33 (0) 164 308 922
+33 (0) 164 308 749
hse@service-chimie.fr
www.service-chimie.fr

1.4 Emergency telephone number

+44(0)1235 239 671 [CareChem 24]

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SECTION 2: Hazards identification**2.1 Classification of the substance or mixture****GHS Classification (UN)**

Long-term (chronic) aquatic hazard, Category 4

H413: May cause long lasting harmful effects to aquatic life.

2.2 Label elements**GHS label elements (UN)****Hazard statements**

- H413 May cause long lasting harmful effects to aquatic life.

Precautionary statements**General**

- None

Prevention

- P273 Avoid release to the environment.

Response

- None

Storage

- None

Disposal

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- P501 Dispose of contents/ container to an approved waste disposal plant.

2.3 Other hazards which do not result in classification

None known.

SECTION 3: Composition/information on ingredients
3.1 Substance

- Not applicable, this product is a mixture.

3.2 Mixture

- Chemical name 1,1,1,3,3-Pentafluorobutane (= HFC-365mfc) / 1-Propene, 1,1,2,3,3,3-hexafluoro-, oxidized, polymd. (= Galden ® HT55)

Information on Components and Impurities

Chemical name	CAS-No.	GHS Classification	Concentration [%]
1,1,1,3,3-pentafluorobutane	CAS-No. : 406-58-6	Flammable liquids, Category 2 ; H225	60 - 70
Hexafluoropropene, oxidized, oligomers, reduced, fluorinated	CAS-No. : 161075-00-9	Long-term (chronic) aquatic hazard, Category 4 ; H413	30 - 40

For the full text of the H-Statements mentioned in this Section, see Section 16.

SECTION 4: First aid measures
4.1 Description of first aid measures**In case of inhalation**

- Remove to fresh air.
- Oxygen or artificial respiration if needed.
- If symptoms persist, call a physician.

In case of skin contact

- Wash off with soap and water.
- If symptoms persist, call a physician.

In case of eye contact

- Rinse thoroughly with plenty of water, also under the eyelids.
- If eye irritation persists, consult a specialist.

In case of ingestion

- Clean mouth with water and drink afterwards plenty of water.
- If symptoms persist, call a physician.

4.2 Most important symptoms and effects, both acute and delayed**In case of inhalation****Symptoms**

- narcosis
- At high concentrations:
- Asphyxia

In case of skin contact**Effects**

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- Prolonged skin contact may defat the skin and produce dermatitis.

In case of eye contact**Effects**

- slight irritation

In case of ingestion**Effects**

- Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea.

4.3 Indication of any immediate medical attention and special treatment needed**Notes to physician**

- When symptoms persist or in all cases of doubt seek medical advice.

SECTION 5: Firefighting measures**5.1 Extinguishing media****Suitable extinguishing media**

- powder
- Foam
- Aqueous film forming foam (AFFF).
- Carbon dioxide (CO₂)

Unsuitable extinguishing media

- Water may be ineffective.

5.2 Special hazards arising from the substance or mixture**Specific hazards during firefighting**

- The product is not flammable.
- Vapours are heavier than air and may spread along floors.
- Risk of ignition.
- Vapours may form explosive mixtures with air.
- Hazardous decomposition products formed under fire conditions.

Hazardous combustion products:

- Fluorophosgene
- The release of other hazardous decomposition products is possible.

5.3 Advice for firefighters**Special protective equipment for firefighters**

- Wear self-contained breathing apparatus and protective suit.
- Full protective flameproof clothing
- Wear chemical resistant oversuit
- Special protective actions for fire-fighters
- In case of fire, use water spray.
- Keep product and empty container away from heat and sources of ignition.

Further information

- Evacuate personnel to safe areas.
- Keep containers and surroundings cool with water spray.
- Approach from upwind.

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SECTION 6: Accidental release measures**6.1 Personal precautions, protective equipment and emergency procedures****Advice for non-emergency personnel**

- Prevent further leakage or spillage if safe to do so.
- Keep away from incompatible products

Advice for emergency responders

- Evacuate personnel to safe areas.
- Keep people away from and upwind of spill/leak.
- Remove all sources of ignition.
- Wear self-contained breathing apparatus and protective suit.
- Cover the spreading liquid with foam in order to slow down the evaporation.
- Ventilate the area.

6.2 Environmental precautions

- Should not be released into the environment.
- If the product contaminates rivers and lakes or drains inform respective authorities.

6.3 Methods and materials for containment and cleaning up

- Dam up.
- Soak up with inert absorbent material.
- Prevent product from entering sewage system.
- Keep in properly labelled containers.
- Keep in suitable, closed containers for disposal.

6.4 Reference to other sections

- 7. HANDLING AND STORAGE
- 8. EXPOSURE CONTROLS/PERSONAL PROTECTION
- 13. DISPOSAL CONSIDERATIONS

SECTION 7: Handling and storage**7.1 Precautions for safe handling**

- Used in closed system
- Use only in well-ventilated areas.
- Keep away from heat and sources of ignition.
- Heating can release vapours which can be ignited.
- To avoid ignition of vapours by static electricity discharge, all metal parts of the equipment must be grounded.
- When transferring from one container to another apply earthing measures and use conductive hose material.
- Preferably transfer by pump or gravity.
- Do not use sparking tools.
- Keep away from incompatible products

Hygiene measures

- Use only in an area equipped with a safety shower.
- Eye wash bottles or eye wash stations in compliance with applicable standards.
- When using do not eat, drink or smoke.
- Gloves, overalls and boots have to be double layered (protection against cold temperature).
- Handle in accordance with good industrial hygiene and safety practice.

7.2 Conditions for safe storage, including any incompatibilities

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Technical measures/Storage conditions

- Keep tightly closed in a dry, cool and well-ventilated place.
- Keep in a banded area.
- Keep away from heat/ sparks/ open flames/ hot surfaces. No smoking.
- Ensure all equipment is electrically grounded before beginning transfer operations.
- Take measures to prevent the build up of electrostatic charge.

- Keep away from:
- Incompatible products

Packaging material
Remarks

- Store in original container.

7.3 Specific end use(s)

- Contact your supplier for additional information

SECTION 8: Exposure controls/personal protection
8.1 Control parameters
Components with other occupational exposure limits

Components	Value type	Value	Basis
Hexafluoropropene, oxidized, oligomers, reduced, fluorinated	TWA	555 ppm	Solvay Acceptable Exposure Limit

8.2 Exposure controls
Control measures
Engineering measures

- Provide appropriate exhaust ventilation at machinery.
- Apply technical measures to comply with the occupational exposure limits.
- Refer to protective measures listed in sections 7 and 8.

Individual protection measures
Respiratory protection

- Self-contained breathing apparatus in confined spaces/insufficient oxygen/in case of large uncontrolled emissions/in all circumstances when the mask and cartridge do not give adequate protection.
- Use only respiratory protection that conforms to international/ national standards.
- In the case of vapour formation use a respirator with an approved filter.
- Recommended Filter type: AX
- Protective equipment only chosen according to specific regulatory requirements after a risk assessment.

Hand protection

- Take note of the information given by the producer concerning permeability and break through times, and of special workplace conditions (mechanical strain, duration of contact).
- Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time.

Suitable material

- PVA
- Copolymer VF2-HFP (fluoroelastomer)

Eye protection

- Chemical resistant goggles must be worn.

Skin and body protection

- Wear suitable protective clothing, gloves and eye/face protection.

Hygiene measures

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- Use only in an area equipped with a safety shower.
- Eye wash bottles or eye wash stations in compliance with applicable standards.
- When using do not eat, drink or smoke.
- Gloves, overalls and boots have to be double layered (protection against cold temperature).
- Handle in accordance with good industrial hygiene and safety practice.

Environmental exposure controls

- Dispose of rinse water in accordance with local and national regulations.

SECTION 9: Physical and chemical properties**9.1 Information on basic physical and chemical properties**

<u>Physical state</u>	liquid
<u>Form</u>	Volatile.
<u>Colour</u>	colourless
<u>Odour</u>	ether-like
<u>Odour Threshold</u>	No data available
<u>Melting point/freezing point</u>	No data available
<u>Initial boiling point and boiling range</u>	<u>Boiling point/boiling range</u> : 36.7 °C
<u>Flammability (solid, gas)</u>	Not applicable
<u>Flammability (liquids)</u>	The product is not flammable. Can become highly flammable in use.
<u>Flammability/Explosive limit</u>	<u>Lower flammability/explosion limit</u> : Type: Lower explosion limit 3.90 %(V) <u>Upper flammability/explosion limit</u> : Type: Upper explosion limit 11.70 %(V)
<u>Flash point</u>	does not flash
<u>Auto-ignition temperature</u>	No data available
<u>Decomposition temperature</u>	>= 200 °C
<u>pH</u>	6.0
<u>Viscosity</u>	<u>Viscosity, dynamic</u> : 0.4 mPa.s (25 °C)
<u>Solubility</u>	No data available
<u>Partition coefficient: n-octanol/water</u>	log Pow: 1.6 1,1,1,3,3-pentafluorobutane
<u>Vapour pressure</u>	500 hPa (20 °C)
<u>Density</u>	<u>Bulk density</u> : Not applicable
<u>Relative density</u>	1.37
<u>Relative vapor density</u>	> 1 (20 °C)

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Particle characteristics No data available

Evaporation rate (Butylacetate = 1) No data available

9.2 Other information

Explosiveness In use, may form flammable/explosive vapour-air mixture.

Oxidizing properties Not considered as oxidizing

Self-ignition 580 °C
1,1,1,3,3-pentafluorobutane

Henry's Constant ca. 3800 Pa.m³/mol (20 °C)
Method: Calculation method
considerable volatility, Air

SECTION 10: Stability and reactivity**10.1 Reactivity**

- Risk of violent reaction.
- Risk of explosion.

10.2 Chemical stability

- Stable under recommended storage conditions.
- In use, may form flammable/explosive vapour-air mixture.
- Strong oxidizers, alkali metals and alkaline earth metals may cause fires or explosions.

10.3 Possibility of hazardous reactions

- Strong oxidizers, alkali metals and alkaline earth metals may cause fires or explosions.

10.4 Conditions to avoid

- Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
- Avoid excessive heat for prolonged periods of time.

10.5 Incompatible materials

- Light and/or alkaline metals
- Powdered metals
- Alkaline earth metals

10.6 Hazardous decomposition products

- Hazardous decomposition products**
- Gaseous hydrogen fluoride (HF).
 - Carbon monoxide

SECTION 11: Toxicological information**11.1 Information on toxicological effects****Acute toxicity****Acute oral toxicity**

1,1,1,3,3-pentafluorobutane

LD50 : > 2,000 mg/kg - Rat , male and female

Method: OECD Test Guideline 401

Not classified as hazardous for acute oral toxicity according to GHS.

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Hexafluoropropene, oxidized,
oligomers, reduced, fluorinated

Acute inhalation toxicity

1,1,1,3,3-pentafluorobutane

Hexafluoropropene, oxidized,
oligomers, reduced, fluorinated

Acute dermal toxicity

Hexafluoropropene, oxidized,
oligomers, reduced, fluorinated

**Acute toxicity (other routes of
administration)****Skin corrosion/irritation**

1,1,1,3,3-pentafluorobutane

Hexafluoropropene, oxidized,
oligomers, reduced, fluorinated

Serious eye damage/eye irritation

1,1,1,3,3-pentafluorobutane

Hexafluoropropene, oxidized,
oligomers, reduced, fluorinated

Respiratory or skin sensitisation

1,1,1,3,3-pentafluorobutane

Hexafluoropropene, oxidized,
oligomers, reduced, fluorinated

Mutagenicity**Genotoxicity in vitro**

1,1,1,3,3-pentafluorobutane
Hexafluoropropene, oxidized,
oligomers, reduced, fluorinated

Genotoxicity in vivo

1,1,1,3,3-pentafluorobutane

LD50 : > 5,000 mg/kg - Rat , male and female
Method: OECD Test Guideline 401
Unpublished internal reports

LC50 - 4 h (vapour) : > 100,000 ppm - Rat , male and female
Not classified as hazardous for acute inhalation toxicity according to GHS.
LC50 - 4 h (vapour) : > 1,627 mg/l - Rat , male and female
Method: OECD Test Guideline 403
Unpublished internal reports

LD50 : > 2,000 mg/kg - Rat , male and female
Method: OECD Test Guideline 402
Unpublished internal reports
No data available

Rabbit
No skin irritation
Method: OECD Test Guideline 404
Rabbit
No skin irritation
Method: OECD Test Guideline 404
Unpublished internal reports

Rabbit
No eye irritation
Method: OECD Test Guideline 405
Rabbit
No eye irritation
Method: OECD Test Guideline 405
Unpublished internal reports

Maximisation Test - Guinea pig
Does not cause skin sensitisation.
Method: OECD Test Guideline 406
Buehler Test - Guinea pig
Does not cause skin sensitisation.
Method: OECD Test Guideline 406
Unpublished internal reports

In vitro tests did not show mutagenic effects
Ames test
with and without metabolic activation

negative
Method: OECD Test Guideline 471
Information given is based on data obtained from similar substances.
Unpublished internal reports
Chromosome aberration test in vitro
with and without metabolic activation

negative
Method: OECD Test Guideline 473
Information given is based on data obtained from similar substances.
Unpublished internal reports

In vivo tests did not show mutagenic effects

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Hexafluoropropene, oxidized,
oligomers, reduced, fluorinatedIn vivo micronucleus test - Rat
male
Inhalation
Method: OECD Test Guideline 474negative
Information given is based on data obtained from similar substances.
Unpublished internal reports
No data available**Carcinogenicity****Toxicity for reproduction and development****Toxicity to reproduction/Fertility**

1,1,1,3,3-pentafluorobutane

One-Generation Reproduction Toxicity Study - Rat, male and female, Inhalation
Fertility NOAEL Parent: 30,000 ppm
OECD Test Guideline 415**Developmental Toxicity/Teratogenicity**

1,1,1,3,3-pentafluorobutane

Rat, female, Inhalation
Teratogenicity NOAEC:30,000ppm
Method: OECD Test Guideline 414
no embryotoxic or teratogenic effects have been observed
Rabbit, female, Inhalation
Teratogenicity NOAEC:30,000ppm
Method: OECD Test Guideline 414
no embryotoxic or teratogenic effects have been observedHexafluoropropene, oxidized,
oligomers, reduced, fluorinatedRat, Inhalation
Method: OECD Test Guideline 414
no embryotoxic or teratogenic effects have been observed, Information given is
based on data obtained from similar substances., Unpublished internal reports**STOT****STOT - single exposure**

1,1,1,3,3-pentafluorobutane

The substance or mixture is not classified as specific target organ toxicant, single
exposure according to GHS criteria.Hexafluoropropene, oxidized,
oligomers, reduced, fluorinatedThe substance or mixture is not classified as specific target organ toxicant, single
exposure according to GHS criteria.**STOT - repeated exposure**

1,1,1,3,3-pentafluorobutane

The substance or mixture is not classified as specific target organ toxicant,
repeated exposure according to GHS criteria.Hexafluoropropene, oxidized,
oligomers, reduced, fluorinated
1,1,1,3,3-pentafluorobutaneThe substance or mixture is not classified as specific target organ toxicant,
repeated exposure according to GHS criteria.
Inhalation Single exposure - Dog
LOAEL: 75100 ppm
cardiac sensitization following adrenergic stimulation
Inhalation 1-year - Rat , male and female
NOAEC: 6980 ppm
Target Organs: Liver, KidneyHexafluoropropene, oxidized,
oligomers, reduced, fluorinatedOral 28-day - Rat , male and female
NOEL: 1000 mg/kg
Method: OECD Test Guideline 407
Unpublished internal reports

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Inhalation (vapour) 28-day - Rat , male and female
NOAEC: 9842 ppm
Method: OECD Test Guideline 412
No significant adverse effects were reported
Information given is based on data obtained from similar substances.
Unpublished internal reports

Inhalation (vapour) 90-day - Rat , male
NOAEC: 10075 ppm
Method: OECD Test Guideline 413
No significant adverse effects were reported
Information given is based on data obtained from similar substances.
Unpublished internal reports

Experience with human exposure
CMR effects

No data available

MutagenicityHexafluoropropene, oxidized,
oligomers, reduced, fluorinatedThe product is considered to be non-mutagenic based on an overall assessment
of the data from animal and/or in vitro testing.**Teratogenicity**Hexafluoropropene, oxidized,
oligomers, reduced, fluorinated

Animal testing did not show any effects on foetal development.

Aspiration toxicity

No data available

SECTION 12: Ecological information**12.1 Toxicity****Aquatic Compartment****Acute toxicity to fish**Hexafluoropropene, oxidized,
oligomers, reduced, fluorinated

- 96 h : - Danio rerio (zebra fish)
semi-static test
Analytical monitoring: yes

Method: OECD Test Guideline 203
No significant deleterious effects observed up to the highest concentration tested
Unpublished internal reports

Acute toxicity to daphnia and other aquatic invertebratesHexafluoropropene, oxidized,
oligomers, reduced, fluorinated

- 48 h : - Daphnia magna (Water flea)
semi-static test
Analytical monitoring: yes

Method: OECD Test Guideline 202
No significant deleterious effects observed up to the highest concentration tested
Unpublished internal reports

Toxicity to aquatic plantsHexafluoropropene, oxidized,
oligomers, reduced, fluorinated

- 72 h : - Pseudokirchneriella subcapitata (green algae)
static test

Analytical monitoring: yes
End point: Growth rate
Method: OECD Test Guideline 201
No significant deleterious effects observed up to the highest concentration tested
Unpublished internal reports

Toxicity to microorganismsHexafluoropropene, oxidized,
oligomers, reduced, fluorinated

NOEC - 3 h : 1,000 mg/l - activated sludge
Analytical monitoring: no
Method: OECD Test Guideline 209
Unpublished internal reports

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Chronic toxicity to fish No data available**Chronic toxicity to daphnia and other aquatic invertebrates** No data available**12.2 Persistence and degradability****Abiotic degradation****Stability in water**

Hexafluoropropene, oxidized, oligomers, reduced, fluorinated

Method: Structure-activity relationship (SAR)
Stable**Physical- and photo-chemical elimination**

No data available

Biodegradation**Biodegradability**

Hexafluoropropene, oxidized, oligomers, reduced, fluorinated

The substance does not fulfill the criteria for ready biodegradability and ultimate aerobic biodegradability
Structure-activity relationship (SAR)**Degradability assessment**

Hexafluoropropene, oxidized, oligomers, reduced, fluorinated

The product is not considered to be rapidly degradable in the environment

12.3 Bioaccumulative potential**Partition coefficient: n-octanol/water**

Hexafluoropropene, oxidized, oligomers, reduced, fluorinated

Not relevant
Direct and indirect exposure of the aquatic compartment is unlikely.**Bioconcentration factor (BCF)**

Hexafluoropropene, oxidized, oligomers, reduced, fluorinated

Bioaccumulation is unlikely.
Direct and indirect exposure of the aquatic compartment is unlikely.**12.4 Mobility in soil****Adsorption potential (Koc)**

Hexafluoropropene, oxidized, oligomers, reduced, fluorinated

Adsorption/Soil
Koc: 1000 - 10000
Method: OECD Test Guideline 106
Unpublished internal reports**Known distribution to environmental compartments**

Hexafluoropropene, oxidized, oligomers, reduced, fluorinated

Ultimate destination of the product : Air
Fate models
Predicted distribution to environmental compartments**12.5 Results of PBT and vPvB assessment**

Hexafluoropropene, oxidized, oligomers, reduced, fluorinated

This substance is not considered to be persistent, bioaccumulating and toxic (PBT).
This substance is not considered to be very persistent and very bioaccumulating (vPvB).**12.6 Other adverse effects****Ozone-Depletion Potential**Ozone-Depletion Potential: 0
Additional Information: no effect on stratospheric ozone
Ozone depletion potential; ODP; (R-11 = 1)

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Global warming potential

Regulatory basis: Assessment Report of the Intergovernmental Panel on Climate Change (IPCC) of the United Nations Framework Convention on Climate Change (UNFCCC)

20-year global warming potential: 2,660

100-year global warming potential: 804

 Radiative efficiency: 0.22 Wm²ppb

Additional Information: Hydrofluorocarbons

Ecotoxicity assessment
Short-term (acute) aquatic hazard

Hexafluoropropene, oxidized, oligomers, reduced, fluorinated

Not classified due to data which are conclusive although insufficient for classification.

No acute environmental hazard identified

Long-term (chronic) aquatic hazard

Hexafluoropropene, oxidized, oligomers, reduced, fluorinated

May cause long lasting harmful effects to aquatic life.

SECTION 13: Disposal considerations
13.1 Waste treatment methods
Product Disposal

- The incinerator must be equipped with a system for the neutralisation or recovery of HF.
- The Company encourages the recycle, recovery and reuse of materials, where permitted. If disposal is necessary, The Company recommends that organic materials, especially when classified as hazardous waste, be disposed of by thermal treatment or incineration at approved facilities. All local and national regulations should be followed.

Advice on cleaning and disposal of packaging

- Where possible recycling is preferred to disposal or incineration.

SECTION 14: Transport information
IMDG

not regulated

IATA

not regulated

Note: The above regulatory prescriptions are those valid on the date of publication of this sheet. Given the possible evolution of transport regulations for hazardous materials, it would be advisable to check their validity with your sales office.

SECTION 15: Regulatory information
15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
Local regulations
Montreal Protocol

- Banned and/or restricted : 1,1,1,3,3-pentafluorobutane

Notification status

Inventory Information	Status
United States TSCA Inventory	<ul style="list-style-type: none"> - All substances listed as active on the TSCA inventory - CAS: 69991-67-9
Canadian Domestic Substances List (DSL)	<ul style="list-style-type: none"> - Listed on Inventory

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	- CAS: 69991-67-9
Japan. CSCL - Inventory of Existing and New Chemical Substances	- Listed on Inventory
Australian Inventory of Industrial Chemicals (AIIC)	- Listed on Inventory: Listed introduction - CAS: 69991-67-9
Philippines Inventory of Chemicals and Chemical Substances (PICCS)	- Listed on Inventory - CAS: 69991-67-9
Korea. Korean Existing Chemicals Inventory (KECI)	- Listed on Inventory - CAS: 69991-67-9
Taiwan Chemical Substance Inventory (TCSI)	- Listed on Inventory
New Zealand. Inventory of Chemical Substances	- All components are listed on the NZIoC inventory. Additional HSNO obligations may apply. Please refer to Section 15 of SDS for New Zealand. - CAS: 69991-67-9
China. Inventory of Existing Chemical Substances in China (IECSC)	- Listed on Inventory - CAS: 69991-67-9
EU. European Registration, Evaluation, Authorization and Restriction of Chemical (REACH)	- When purchased from a Solvay legal entity based in the EEA ("European Economic Area"), this product is compliant with the registration provisions of the REACH Regulation (EC) No. 1907/2006 as all its components are either excluded, exempt, and/or registered. When purchased from a legal entity outside of the EEA, please contact your local representative for additional information.

SECTION 16: Other information
Full text of H-Statements

- H225: Highly flammable liquid and vapour.
- H413: May cause long lasting harmful effects to aquatic life.

Key or legend to abbreviations and acronyms used in the safety data sheet

- ADR: European Agreement on International Carriage of Dangerous Goods by Road.
- ADN: European Agreement on the International Carriage of Dangerous Goods by Inland Waterways.
- RID: European Agreement concerning the International Carriage of Dangerous Goods by Rail.
- IATA: International Air Transport Association.
- ICAO-TI: Technical Instructions for Safe Transport of Dangerous Goods by Air.
- IMDG: International Maritime Dangerous Goods.
- TWA: Time weighted average
- ATE: Estimated value of acute toxicity
- EC: European Community number
- CAS: Chemical Abstracts Service.
- LD50: Substance that causes 50% (half) death in the test animals group (Median Fatal Dose).
- LC50: Substance concentration causing 50% (half) death in the test animals group.
- EC50: Effective Concentration of the substance causing the maximum of 50%.
- PBT: Persistent, Bioaccumulative and Toxic substance.
- vPvB: Very Persistent and Very Bioaccumulative.
- GHS/CLP/SEA: Classification, labeling, packaging regulation
- DNEL: Derived No Effect Level

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SAFETY DATA SHEET

SOLKATHERM® SES 36

Revision Date 28.10.2021

- PNEC: Predicted No Effect Concentration
- STOT: Specific Target Organ Toxicity

Not all acronyms listed above are referenced in this SDS.

Further information

- Distribute new edition to clients

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. Such information is only given as a guidance to help the user handle, use, process, store, transport, dispose and release the product in satisfactory safety conditions and is not to be considered as a warranty or quality specification. It should be used in conjunction with technical sheets but do not replace them. Thus, the information only relates to the designated specific product and may not be applicable if such product is used in combination with other materials or in any other manufacturing process, unless otherwise specifically indicated. It does not release the user from ensuring he is in conformity with all regulations linked to its activity.

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