

Safety Data Sheet

Hexafluoro-1,3-Butadiene

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

SDS Reference Number: D-C4F6-131

Issue date: 5/15/2023 Revision date: 12/4/2025 Version: 0.1

Danger



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

1.1. Product identifier

Trade name	:	Hexafluoro-1,3-Butadiene
SDS no	:	D-C4F6-131
Other means of identification	:	Hexafluoro-1,3-Butadiene CAS-No. : 685-63-2 EC-No. : 211-681-0 EC Index-No. : ---
REACH registration No	:	01-2120752741-55
Chemical formula	:	C4F6/ F2C=CF-CF=CF2

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

Relevant identified uses	:	Industrial use. Perform risk assessment prior to use. Test gas/Calibration gas. Chemical reaction / Synthesis. Laboratory use.
Uses advised against	:	Consumer use. Uses other than those listed above are not supported, contact your supplier for more information on other uses.

1.3. Details of the supplier of the safety data sheet

Messer Industriegase GmbH
Messer- Platz 1
D - 65812 Bad Soden am Taunus
Germany
T +49 (0) 6196 7760-200, F +49 (0) 6196 7760-280
SDB.de@messer-group.com, www.messer.de

1.4. Emergency telephone number

Emergency telephone number	:	Messer Produktionsgesellschaft mbH Salzgitter, +49 (0) 5341 21-9333, erreichbar Montags 0:00 bis Sonntags 24:00
----------------------------	---	---

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Physical hazards	Flammable gases, Category 1A	H220
	Gases under pressure : Liquefied gas	H280

Safety Data Sheet

Hexafluoro-1,3-Butadiene

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878
SDS Reference Number: D-C4F6-131

Health hazards	Acute toxicity (inhalation:gas) Category 3	H331
	Specific target organ toxicity – Repeated exposure, Category 2	H373
Environmental hazards	Hazardous to the aquatic environment – Chronic Hazard, Category 3	H412

2.2. Label elements

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

Hazard pictograms (CLP)	:	 GHS02	 GHS06	 GHS08
Signal word (CLP)	:	Danger		
Hazard statements (CLP)	:	H220 - Extremely flammable gas. H280 - Contains gas under pressure; may explode if heated. H331 - Toxic if inhaled. H373 - May cause damage to organs through prolonged or repeated exposure. H412 - Harmful to aquatic life with long lasting effects.		
Precautionary statements (CLP)	:	P273 - Avoid release to the environment. P260 - Do not breathe gas, vapours. P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.		
- Prevention	:	P308+P313 - IF exposed or concerned: Get medical advice/attention. P304+P340+P315 - IF INHALED : Remove person to fresh air and keep comfortable for breathing. Get immediate medical advice. P377 - Leaking gas fire: Do not extinguish, unless leak can be stopped safely. P381 - In case of leakage, eliminate all ignition sources.		
- Response	:			
- Storage	:	P405 - Store locked up. P403 - Store in a well-ventilated place.		

2.3. Other hazards

Not classified as PBT or vPvB.

The substance/mixture has no endocrine disrupting properties.

SECTION 3: Composition/information on ingredients

3.1. Substances

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP] ATE, EUH-statements, M-Factors
Hexafluoro-1,3-Butadiene	CAS-No.: 685-63-2 EC-No.: 211-681-0 EC Index-No.: --- REACH registration No: 01-2120752741-55	100	Flam. Gas 1A, H220 Press. Gas (Liq.), H280 Acute Tox. 3 (Inhalation:gas), H331 (ATE=650 ppmv/4h) STOT RE 2, H373 Aquatic Chronic 3, H412

Safety Data Sheet

Hexafluoro-1,3-Butadiene

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878
SDS Reference Number: D-C4F6-131

Contains no other components or impurities which will influence the classification of the product.

3.2. Mixtures Not applicable

SECTION 4: First aid measures

4.1. Description of first aid measures

- Inhalation : Remove victim to uncontaminated area wearing self contained breathing apparatus. Keep victim warm and rested. Call a doctor. Perform cardiopulmonary resuscitation if breathing stopped.
- Skin contact : Adverse effects not expected from this product.
- Eye contact : Immediately flush eyes thoroughly with water for at least 15 minutes.
- Ingestion : Ingestion is not considered a potential route of exposure.

4.2. Most important symptoms and effects, both acute and delayed

Prolonged exposure to small concentrations may result in pulmonary oedema.
May cause stomach cramps and vomiting.
Delayed adverse effects possible.
See section 11.

4.3. Indication of any immediate medical attention and special treatment needed

Obtain medical assistance.

SECTION 5: Firefighting measures

5.1. Extinguishing media

- Suitable extinguishing media : Water spray or fog.
Dry powder.
Carbon dioxide.
Shutting off the source of the gas is the preferred method of control.
Be aware of the risk of formation of static electricity with the use of CO₂ extinguishers. Do not use them in places where a flammable atmosphere may be present.
- Unsuitable extinguishing media : Do not use water jet to extinguish.

5.2. Special hazards arising from the substance or mixture

Specific hazards : Exposure to fire may cause containers to rupture/explode.
Hazardous combustion products : Carbon monoxide. Hydrogen fluoride.

5.3. Advice for firefighters

Specific methods : Use fire control measures appropriate for the surrounding fire. Exposure to fire and heat radiation may cause gas receptacles to rupture. Cool endangered receptacles with water spray jet from a protected position. Prevent water used in emergency cases from entering sewers and drainage systems.
If possible, stop flow of product.
Use water spray or fog to knock down fire fumes if possible.
Do not extinguish a leaking gas flame unless absolutely necessary. Spontaneous/explosive re-ignition may occur. Extinguish any other fire.
Move containers away from the fire area if this can be done without risk.

Safety Data Sheet

Hexafluoro-1,3-Butadiene

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878
SDS Reference Number: D-C4F6-131

Special protective equipment for fire fighters	<ul style="list-style-type: none">: Wear gas tight chemically protective clothing in combination with self contained breathing apparatus.Standard EN 943-2: Protective clothing against liquid and gaseous chemicals, aerosols and solid particles. Gas-tight chemical protective suits for emergency teams.Standard EN 137 - Self-contained open-circuit compressed air breathing apparatus with full face mask.
--	---

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel	<ul style="list-style-type: none">: Act in accordance with local emergency plan.Try to stop release.Evacuate area.Eliminate ignition sources.Ensure adequate air ventilation.Prevent from entering sewers, basements and workpits, or any place where its accumulation can be dangerous.Stay upwind.See section 8 of the SDS for more information on personal protective equipment.
For emergency responders	<ul style="list-style-type: none">: Monitor concentration of released product.Consider the risk of potentially explosive atmospheres.Wear self-contained breathing apparatus when entering area unless atmosphere is proved to be safe.See section 5.3 of the SDS for more information.

6.2. Environmental precautions

Try to stop release.

6.3. Methods and material for containment and cleaning up

Ventilate area.

6.4. Reference to other sections

See also sections 8 and 13.

Safety Data Sheet

Hexafluoro-1,3-Butadiene

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878
SDS Reference Number: D-C4F6-131

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Safe use of the product

- : Take precautionary measures against static discharge.
- Keep away from ignition sources (including static discharges).
- Use only properly specified equipment which is suitable for this product, its supply pressure and temperature. Contact your gas supplier if in doubt.
- Purge air from system before introducing gas.
- Avoid exposure, obtain special instructions before use.
- Do not smoke while handling product.
- Avoid suck back of water, acid and alkalis.
- Only experienced and properly instructed persons should handle gases under pressure.
- Ensure the complete gas system was (or is regularly) checked for leaks before use.
- Installation of a cross purge assembly between the container and the regulator is recommended.
- Assess the risk of potentially explosive atmospheres and the need for explosion-proof equipment.
- Consider the use of only non-sparking tools.
- The product must be handled in accordance with good industrial hygiene and safety procedures.
- Consider pressure relief device(s) in gas installations.
- Do not breathe gas.
- Avoid release of product into work area.
- Ensure equipment is adequately earthed.

Safe handling of the gas receptacle

- : Refer to supplier's container handling instructions.
- Do not allow backfeed into the container.
- Protect containers from physical damage; do not drag, roll, slide or drop.
- When moving cylinders, even for short distances, use a cart (trolley, hand truck, etc.) designed to transport cylinders.
- Leave valve protection caps, when provided, in place until the container has been secured against either a wall or bench or placed in a container stand and is ready for use.
- If user experiences any difficulty operating valve discontinue use and contact supplier.
- Never attempt to repair or modify container valves or safety relief devices.
- Damaged valves should be reported immediately to the supplier.
- Keep container valve outlets clean and free from contaminants particularly oil and water.
- Replace valve outlet caps or plugs and container caps where supplied as soon as container is disconnected from equipment.
- Close container valve after each use and when empty, even if still connected to equipment.
- Never attempt to transfer gases from one cylinder/container to another.
- Never use direct flame or electrical heating devices to raise the pressure of a container.
- Do not remove or deface labels provided by the supplier for the identification of the content of the container.
- Suck back of water into the container must be prevented.
- Open valve slowly to avoid pressure shock.

Safety Data Sheet

Hexafluoro-1,3-Butadiene

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878
SDS Reference Number: D-C4F6-131

7.2. Conditions for safe storage, including any incompatibilities

Segregate from oxidant gases and other oxidants in store.
All electrical equipment in the storage areas should be compatible with the risk of a potentially explosive atmosphere.
Observe all regulations and local requirements regarding storage of containers.
Containers should not be stored in conditions likely to encourage corrosion.
Container valve guards or caps, when provided, should be in place.
Containers should be stored in the vertical position and properly secured to prevent them from falling over.
Stored containers should be periodically checked for general condition and leakage.
Keep container below 50°C in a well ventilated place.
Store containers in location free from fire risk and away from sources of heat and ignition.
Keep away from combustible materials.

7.3. Specific end use(s)

None.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Hexafluoro-1,3-Butadiene (685-63-2)	
DNEL: Derived no effect level (Workers)	
Acute - systemic effects, inhalation	362 mg/m ³
Long-term - local effects, inhalation	1325 mg/m ³
Long-term - systemic effects, inhalation	0.663 mg/m ³

PNEC (Predicted No-Effect Concentration) : None established.

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Provide adequate general and local exhaust ventilation.
Product to be handled in a closed system.
Systems under pressure should be regularly checked for leakages.
Ensure exposure is below occupational exposure limits (where available).
Gas detectors should be used when toxic gases may be released.
Consider the use of a work permit system e.g. for maintenance activities.

8.2.2. Individual protection measures, e.g. personal protective equipment

A risk assessment should be conducted and documented in each work area to assess the risks related to the use of the product and to select the PPE that matches the relevant risk. The following recommendations should be considered:

PPE compliant to the recommended EN/ISO standards should be selected.

• Eye/face protection : Wear goggles when transfilling or breaking transfer connections.

Standard EN 166 - Personal eye-protection - specifications.

Standard EN ISO 16321-1 - Eye and face protection for occupational use Part 1: General requirements.

Safety Data Sheet

Hexafluoro-1,3-Butadiene

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878
SDS Reference Number: D-C4F6-131

- Skin protection
 - Hand protection
 - : Wear working gloves when handling gas containers.
Standard EN 388 - Protective gloves against mechanical risks, performance level 1 or higher.
Recommended types include wrist gloves from leather or synthetic material with equivalent performance, fabric gloves, fabric gloves with leather palms.
 - : Consider the use of flame resistant anti-static safety clothing.
Standard EN ISO 14116 - Limited flame spread materials.
Standard EN 1149-5 - Protective clothing: Electrostatic properties.
Wear safety shoes while handling containers.
Standard EN ISO 20345 - Personal protective equipment - Safety footwear.
 - Other
 - : Standard EN 137 - Self-contained open-circuit compressed air breathing apparatus with full face mask.
 - : Consult respiratory device supplier's product information for the selection of the appropriate device.
- Respiratory protection
 - : Self contained breathing apparatus (SCBA) or positive pressure airline with mask are to be used in oxygen-deficient atmospheres.
Keep self contained breathing apparatus readily available for emergency use.
Self contained breathing apparatus is recommended, where unknown exposure may be expected, e.g. during maintenance activities on installation systems.
- Thermal hazards
 - : None in addition to the above sections.

8.2.3. Environmental exposure controls

Refer to local regulations for restriction of emissions to the atmosphere. See section 13 for specific methods for waste gas treatment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance

- Physical state at 20°C / 101.3kPa
- Colour

- : Gas.
- : Colourless.

Odour

Melting point / Freezing point

: -132 °C

Boiling point

: 6 °C

Flammability

: Extremely flammable gas.

Lower explosion limit

: ≥ 7 vol %

Upper explosion limit

: Not known.

Flash point

: Not applicable for gases and gas mixtures.

Auto-ignition temperature

: Not known.

Decomposition temperature

: Not applicable.

pH

: Not applicable for gases and gas mixtures.

Viscosity, kinematic

: No reliable data available.

Water solubility [20°C]

: Not known, but considered to have low solubility.

Partition coefficient n-octanol/water (Log K_{ow})

: Not known.

Vapour pressure [20°C]

: 0.8 bar(a)

Vapour pressure [50°C]

: No reliable data available.

Density and/or relative density

: Not applicable for gases and gas mixtures.

Relative vapour density (air=1)

: 5.6

Safety Data Sheet

Hexafluoro-1,3-Butadiene

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878
SDS Reference Number: D-C4F6-131

Particle characteristics	: Not applicable for gases and gas mixtures. Nanoforms are not relevant for gases and gas mixtures.
--------------------------	--

9.2. Other information

9.2.1. Information with regard to physical hazard classes

Oxidising properties	: No oxidising properties.
Critical temperature [°C]	: 139.6 °C

9.2.2. Other safety characteristics

Molar mass	: 162 g/mol
Other data	: Gas/vapour heavier than air. May accumulate in confined spaces, particularly at or below ground level.

SECTION 10: Stability and reactivity

10.1. Reactivity

No reactivity hazard other than the effects described in sub-sections below.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

Can form explosive mixture with air.
May react violently with oxidants.

10.4. Conditions to avoid

Keep away from heat/sparks/open flames/hot surfaces. – No smoking.
Avoid moisture in installation systems.

10.5. Incompatible materials

May react violently with alkalis.
May react with aluminium.
Air, Oxidisers.
For additional information on compatibility refer to ISO 11114.

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity	: Toxic if inhaled.
----------------	---------------------

Hexafluoro-1,3-Butadiene (685-63-2)

LC50 Inhalation - Rat [ppm]	650 ppm/4h
-----------------------------	------------

Skin corrosion/irritation	: No known effects from this product.
---------------------------	---------------------------------------

Serious eye damage/irritation	: No known effects from this product.
-------------------------------	---------------------------------------

Safety Data Sheet

Hexafluoro-1,3-Butadiene

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878
SDS Reference Number: D-C4F6-131

Respiratory or skin sensitisation	: No known effects from this product.
Germ cell mutagenicity	: No known effects from this product.
Carcinogenicity	: No known effects from this product.
Toxic for reproduction : Fertility	: No known effects from this product.
Toxic for reproduction : unborn child	: No known effects from this product.
STOT-single exposure	: No known effects from this product.
STOT-repeated exposure	: May cause damage to organs through prolonged or repeated exposure.
Aspiration hazard	: Not applicable for gases and gas mixtures.

11.2. Information on other hazards

Other information	: May produce irregular heart beat and nervous symptoms. The substance/mixture has no endocrine disrupting properties.
-------------------	---

SECTION 12: Ecological information

12.1. Toxicity

Assessment	: Harmful to aquatic life with long lasting effects.
EC50 48h - Daphnia magna [mg/l]	: No data available.
EC50 72h - Algae [mg/l]	: No data available.
LC50 96 h - Fish [mg/l]	: No data available.

12.2. Persistence and degradability

Assessment	: Rapidly degradable
------------	----------------------

12.3. Bioaccumulative potential

No additional information available

12.4. Mobility in soil

Assessment	: Because of its high volatility, the product is unlikely to cause ground or water pollution. Partition into soil is unlikely.
------------	---

12.5. Results of PBT and vPvB assessment

Assessment	: Not classified as PBT or vPvB.
------------	----------------------------------

12.6. Endocrine disrupting properties

Assessment	: The substance/mixture has no endocrine disrupting properties.
------------	---

12.7. Other adverse effects

Other adverse effects	: No known effects from this product.
Effect on the ozone layer	: No effect on the ozone layer.
Effect on global warming	: No known effects from this product.

Safety Data Sheet

Hexafluoro-1,3-Butadiene

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878
SDS Reference Number: D-C4F6-131

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Toxic and corrosive gases formed during combustion should be scrubbed before discharge to atmosphere.

Contact supplier if guidance is required.

Do not discharge into areas where there is a risk of forming an explosive mixture with air. Waste gas should be flared through a suitable burner with flash back arrestor.

Ensure that the emission levels from local regulations or operating permits are not exceeded.

Refer to the EIGA code of practice Doc.30 "Disposal of Gases", downloadable at <http://www.eiga.eu> for more guidance on suitable disposal methods.

Must not be discharged to atmosphere.

Return unused product in original container to supplier.

List of hazardous waste codes (from Commission Decision 2000/532/EC as amended)

: 16 05 04 *: Gases in pressure containers (including halons) containing hazardous substances.

13.2. Additional information

External treatment and disposal of waste should comply with applicable local and/or national regulations.

SECTION 14: Transport information

14.1. UN number or ID number

In accordance with ADR / RID / IMDG / IATA / ADN

UN-No. : 3160

14.2. UN proper shipping name

Transport by road/rail/inland waterways : LIQUEFIED GAS, TOXIC, FLAMMABLE, N.O.S.

(ADR/RID/ADN)

Transport by air (ICAO-TI / IATA-DGR) : Liquefied gas, toxic, flammable, n.o.s.

Transport by sea (IMDG) : LIQUEFIED GAS, TOXIC, FLAMMABLE, N.O.S.

14.3. Transport hazard class(es)

Labelling



2.3 : Toxic gases.

2.1 : Flammable gases.

Transport by road/rail/inland waterways

(ADR/RID/ADN)

Class : 2
Classification code : 2TF
Hazard identification number : 263
Tunnel Restriction : B/D - Tank carriage: Passage forbidden through tunnels of category B, C, D and E. Other carriage: Passage forbidden through tunnels of category D and E

Transport by sea (IMDG)

Class / Div. (Sub. risk(s)) : 2.3 (2.1)

Emergency Schedule (EmS) - Fire : F-D

Safety Data Sheet

Hexafluoro-1,3-Butadiene

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878
SDS Reference Number: D-C4F6-131

Emergency Schedule (EmS) - Spillage : S-U

14.4. Packing group

Transport by road/rail/inland waterways : Not applicable.
(ADR/RID/ADN)
Transport by air (ICAO-TI / IATA-DGR) : Not applicable.
Transport by sea (IMDG) : Not applicable.

14.5. Environmental hazards

Transport by road/rail/inland waterways : None.
(ADR/RID/ADN)
Transport by air (ICAO-TI / IATA-DGR) : None.
Transport by sea (IMDG) : None.

14.6. Special precautions for user

Packing Instruction(s)

Transport by road/rail/inland waterways : P200.
(ADR/RID/ADN)
Transport by air (ICAO-TI / IATA-DGR)
Passenger and Cargo Aircraft : Forbidden.
Cargo Aircraft only : Forbidden.
Transport by sea (IMDG) : P200.

Special transport precautions : Avoid transport on vehicles where the load space is not separated from the driver's compartment.
Ensure vehicle driver is aware of the potential hazards of the load and knows what to do in the event of an accident or an emergency.
Before transporting product containers:
- Ensure there is adequate ventilation.
- Ensure that containers are firmly secured.
- Ensure valve is closed and not leaking.
- Ensure valve outlet cap nut or plug (where provided) is correctly fitted.
- Ensure valve protection device (where provided) is correctly fitted.

14.7. Maritime transport in bulk according to IMO instruments

Not applicable.

SECTION 15: Regulatory information

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

EU-Regulations

Restrictions on use : None.
Other information, restriction and prohibition regulations : Ensure all national/local regulations are observed.
Not listed on the PIC list (Regulation EU 649/2012).
Not listed on the POP list (Regulation EU 2019/1021).
Seveso Directive : 2012/18/EU (Seveso III) : Covered.

National regulations

Water hazard class (WGK) : 3 - Highly hazardous to water.

Safety Data Sheet

Hexafluoro-1,3-Butadiene

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878
SDS Reference Number: D-C4F6-131

Regulatory reference

: National / local legislations:

- Law on the Protection of Young People at Work (Jugendarbeitsschutzgesetz-JArbSchG)
- Ordinance on Industrial Safety and Health (BetrSichV)
- TRBS 3145/TRGS 745 - Transportable pressurized gas containers - Filling, holding, internal transport, emptying
- TRGS 510 - Storage of hazardous substances in transportable containers
- TRGS 407 - Activities with gases - Risk assessment
- TRBS 2141 - Hazards due to steam and pressure - General requirements
- The Ordinance on Installations for the Handling of Substances Hazardous to Water (AwSV)
- Storage class according to TRGS 510: 2A Gases (without aerosol dispensers and lighters)
- Technical Instructions on Air Quality Control (TA Luft).
- Gesetz zum Schutz von Müttern bei der Arbeit, in der Ausbildung und im Studium (Mutterschutzgesetz – MuSchG)
- Verordnung über Verbote und Beschränkungen des Inverkehrbringens gefährlicher Stoffe, Zubereitungen und Erzeugnisse nach dem Chemikaliengesetz (Chemikalien-Verbotsverordnung- ChemVerbotsV).
- Classification for storage according to TRGS 510: 2A Gase (ohne Aerosolpackungen und Feuerzeuge).
- TRGS 725 - Gefährliche explosionsfähige Atmosphäre -Mess-, Steuer- und Regeleinrichtungen im Rahmen von Explosionsschutzmaßnahmen.
- TA Luft.
- Zwölfte Verordnung zur Durchführung des Bundes-Immissionsschutzgesetzes (12. BlmSchV- Störfall-Verordnung).

15.2. Chemical safety assessment

A CSA has not yet been carried out.

SECTION 16: Other information

Indication of changes

: Revised safety data sheet in accordance with commission regulation (EU) No 2020/878.

Safety Data Sheet

Hexafluoro-1,3-Butadiene

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878
 SDS Reference Number: D-C4F6-131

Abbreviations and acronyms

- : ATE - Acute Toxicity Estimate.
- CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008.
- REACH - Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006.
- EINECS - European Inventory of Existing Commercial Chemical Substances.
- CAS# - Chemical Abstract Service number.
- PPE - Personal Protection Equipment.
- LC50 - Lethal Concentration to 50 % of a test population.
- RMM - Risk Management Measures.
- PBT - Persistent, Bioaccumulative and Toxic.
- vPvB - Very Persistent and Very Bioaccumulative.
- STOT- SE : Specific Target Organ Toxicity - Single Exposure.
- CSA - Chemical Safety Assessment.
- EN - European Standard.
- UN - United Nations.
- ADR - Agreement concerning the International Carriage of Dangerous Goods by Road.
- IATA - International Air Transport Association.
- IMDG code - International Maritime Dangerous Goods.
- RID - Regulations concerning the International Carriage of Dangerous Goods by Rail.
- WGK - Water Hazard Class.
- STOT - RE : Specific Target Organ Toxicity - Repeated Exposure.
- UFI : Unique Formula Identifier.

Training advice

- : Ensure operators understand the flammability hazard.
- Users of breathing apparatus must be trained.
- Ensure operators understand the toxicity hazard.

Further information

- : Classification in accordance with the procedures and calculation methods of Regulation (EC) 1272/2008 (CLP).
- Key literature references and sources of data are maintained in EIGA Doc 169 : 'Classification and Labelling Guide', downloadable at <http://www.Eiga.eu>.

Full text of H- and EUH-statements	
Acute Tox. 3 (Inhalation:gas)	Acute toxicity (inhalation:gas) Category 3
Aquatic Chronic 3	Hazardous to the aquatic environment – Chronic Hazard, Category 3
Flam. Gas 1A	Flammable gases, Category 1A
Press. Gas (Liq.)	Gases under pressure : Liquefied gas
STOT RE 2	Specific target organ toxicity – Repeated exposure, Category 2
H220	Extremely flammable gas.
H280	Contains gas under pressure; may explode if heated.
H331	Toxic if inhaled.
H373	May cause damage to organs through prolonged or repeated exposure.
H412	Harmful to aquatic life with long lasting effects.

Safety Data Sheet

Hexafluoro-1,3-Butadiene

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878
SDS Reference Number: D-C4F6-131

DISCLAIMER OF LIABILITY

: Before using this product in any new process or experiment, a thorough material compatibility and safety study should be carried out.
Details given in this document are believed to be correct at the time of going to press.
Whilst proper care has been taken in the preparation of this document, no liability for injury or damage resulting from its use can be accepted.

End of document