

IRON CARBONYL, tech-95

Safety Data Sheet INFE030

Date of issue: 09/12/2016 Version: 1.0

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

Product form	: Substance
Physical state	: Liquid
Substance name	: IRON CARBONYL, tech-95
Product code	: INFE030
Formula	: C5FeO5
Synonyms	: PENTACARBONYL IRON
Chemical family	: METAL CARBONYL

1.2. Relevant identified uses of the substance or mixture and uses advised against**1.2.1. Relevant identified uses**

Use of the substance/mixture : Chemical intermediate

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet**GELEST, INC.**11 East Steel Road
Morrisville, PA 19067**USA**

T 215-547-1015 - F 215-547-2484 - (M-F): 8:00 AM - 5:30 PM EST

info@gelest.com - www.gelest.com**GELEST INC.**Fritz-Klatte-Strasse 8
65933 Frankfurt**Germany**

T +49 (0) 69 3535106-500 - F +49 (0) 69 3535106-501 - (M-F): 8:00 AM - 4:00 PM

info@gelestde.com - www.gelestde.com**1.4. Emergency telephone number**

Emergency number : CHEMTREC: 1-800-424-9300 (USA); +1 703-527-3887 (International)

SECTION 2: Hazards identification**2.1. Classification of the substance or mixture****Classification according to Regulation (EC) No. 1272/2008 [CLP]**

Flammable liquids, Category 2	H225
Acute toxicity (oral), Category 2	H300
Acute toxicity (dermal), Category 2	H310
Acute toxicity (inhalation:vapour) Category 1	H330
Specific target organ toxicity — Repeated exposure, Category 1	H372
Full text of H statements : see section 16	

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements**Labelling according to Regulation (EC) No. 1272/2008 [CLP]**

Hazard pictograms (CLP) :



GHS02

GHS06

GHS08

Signal word (CLP) :

: Danger

IRON CARBONYL, tech-95

Safety Data Sheet

Hazard statements (CLP)	: H225 - Highly flammable liquid and vapour. H300+H310+H330 - Fatal if swallowed, in contact with skin or if inhaled H372 - Causes damage to organs (lungs) through prolonged or repeated exposure.
Precautionary statements (CLP)	: P280 - Wear protective gloves/protective clothing/eye protection/face protection. P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P240 - Ground/bond container and receiving equipment. P260 - Do not breathe vapours. P264 - Wash hands thoroughly after handling. P310 - Immediately call a POISON CENTER or doctor/physician

2.3. Other hazards

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substances

Substance type	: Mono-constituent
Name	: IRON CARBONYL, tech-95
CAS-No.	: 13463-40-6
EC-No.	: 236-670-8

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Iron carbonyl	(CAS-No.) 13463-40-6 (EC-No.) 236-670-8	95 - 100	Flam. Liq. 2, H225 Acute Tox. 2 (Oral), H300 Acute Tox. 2 (Dermal), H310 Acute Tox. 1 (Inhalation:vapour), H330 STOT RE 1, H372

Full text of H-statements: see section 16

3.2. Mixtures

Not applicable

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general	: Remove contaminated clothing and shoes. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). If possible show this sheet; if not available show packaging or label.
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor.
First-aid measures after skin contact	: Remove/take off immediately all contaminated clothing. Wash with plenty of water/.... Immediately call a POISON CENTER/doctor.
First-aid measures after eye contact	: Immediately flush eyes thoroughly with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical advice/attention.
First-aid measures after ingestion	: Never give anything by mouth to an unconscious person. Immediately call a POISON CENTER/doctor.

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

Symptoms/effects	: Causes damage to organs (lungs) through prolonged or repeated exposure.
Symptoms/effects after inhalation	: Fatal if inhaled. Danger of serious damage to health by prolonged exposure through inhalation. Low levels may cause headache, nausea, dizziness, vomiting and unconsciousness. Prolonged or high levels of exposure may cause cyanosis and circulatory collapse.
Symptoms/effects after skin contact	: Fatal in contact with skin. May cause skin irritation. Repeated exposure to this material can result in absorption through skin causing significant health hazard.
Symptoms/effects after eye contact	: May cause eye irritation.
Symptoms/effects after ingestion	: Fatal if swallowed. Swallowing a small quantity of this material will result in serious health hazard.

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

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	: Water spray. Water fog. Foam. Carbon dioxide. Dry chemical.
------------------------------	---

IRON CARBONYL, tech-95

Safety Data Sheet

Unsuitable extinguishing media : Do not use straight streams.

5.2. Special hazards arising from the substance or mixture

Fire hazard : Highly flammable liquid and vapour. Irritating fumes and organic acid vapors may develop when material is exposed to elevated temperatures or open flame.

Explosion hazard : May form flammable/explosive vapour-air mixture.

5.3. Advice for firefighters

Firefighting instructions : Exercise caution when fighting any chemical fire. Use water spray or fog for cooling exposed containers.

Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection. Avoid all eye and skin contact and do not breathe vapour and mist.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Eliminate every possible source of ignition. Use special care to avoid static electric charges.

6.1.1. For non-emergency personnel

Protective equipment : Wear protective equipment as described in Section 8.

Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. Equip cleanup crew with proper protection. For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

For containment : Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.

Methods for cleaning up : Clean up any spills as soon as possible, using an absorbent material to collect it. Use only non-sparking tools.

6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed : Handle empty containers with care because residual vapours are flammable. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Precautions for safe handling : Avoid all eye and skin contact and do not breathe vapour and mist. Ground/bond container and receiving equipment. Take precautionary measures against static discharge. Use only outdoors or in a well-ventilated area. Use only non-sparking tools.

Hygiene measures : Wash contaminated clothing before reuse. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Proper grounding procedures to avoid static electricity should be followed. Use explosion-proof electrical equipment.

Storage conditions : Keep container tightly closed. Keep in a cool place. Store locked up.

Incompatible materials : Alkalis. Amines. Oxidizing agent.

Storage area : Store in a well-ventilated place. Store away from heat.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Iron carbonyl (13463-40-6)		
Austria	MAK (mg/m ³)	0.8 mg/m ³
Austria	MAK (ppm)	0.1 ppm
Austria	MAK Short time value (mg/m ³)	3.2 mg/m ³
Austria	MAK Short time value (ppm)	0.4 ppm
Belgium	Limit value (mg/m ³)	0.23 mg/m ³
Belgium	Limit value (ppm)	0.1 ppm
Belgium	Short time value (mg/m ³)	0.46 mg/m ³

IRON CARBONYL, tech-95

Safety Data Sheet

Iron carbonyl (13463-40-6)		
Belgium	Short time value (ppm)	0.2 ppm
France	VME (mg/m ³)	0.8 mg/m ³
France	VME (ppm)	0.1 ppm
Germany	TRGS 900 Occupational exposure limit value (mg/m ³)	0.81 mg/m ³
Germany	TRGS 900 Occupational exposure limit value (ppm)	0.1 ppm
Greece	OEL TWA (mg/m ³)	0.8 mg/m ³
Greece	OEL STEL (mg/m ³)	1.6 mg/m ³
Italy - Portugal - USA ACGIH	ACGIH TWA (ppm)	0.1 ppm
Italy - Portugal - USA ACGIH	ACGIH STEL (ppm)	0.2 ppm
Latvia	OEL TWA (mg/m ³)	0.1 mg/m ³
USA NIOSH	NIOSH REL (TWA) (mg/m ³)	0.23 mg/m ³
USA NIOSH	NIOSH REL (TWA) (ppm)	0.1 ppm
USA NIOSH	NIOSH REL (STEL) (mg/m ³)	0.45 mg/m ³
USA NIOSH	NIOSH REL (STEL) (ppm)	0.2 ppm
Spain	VLA-ED (mg/m ³)	0.8 mg/m ³
Spain	VLA-ED (ppm)	0.1 ppm
Spain	VLA-EC (mg/m ³)	1.6 mg/m ³
Spain	VLA-EC (ppm)	0.2 ppm
Switzerland	KZGW (mg/m ³)	1.6 mg/m ³
Switzerland	KZGW (ppm)	0.2 ppm
Switzerland	MAK (mg/m ³)	0.8 mg/m ³
Switzerland	MAK (ppm)	0.1 ppm
United Kingdom	WEL TWA (mg/m ³)	0.08 mg/m ³
United Kingdom	WEL TWA (ppm)	0.01 ppm
United Kingdom	WEL STEL (mg/m ³)	0.24 mg/m ³ (calculated)
United Kingdom	WEL STEL (ppm)	0.03 ppm (calculated)
Czech Republic	Expoziční limity (PEL) (mg/m ³)	0.2 mg/m ³
Denmark	Grænseværdie (langvarig) (mg/m ³)	0.8 mg/m ³
Denmark	Grænseværdie (langvarig) (ppm)	0.1 ppm
Finland	HTP-arvo (15 min)	0.081 mg/m ³
Finland	HTP-arvo (15 min) (ppm)	0.01 ppm
Ireland	OEL (8 hours ref) (mg/m ³)	0.08 mg/m ³
Ireland	OEL (8 hours ref) (ppm)	0.01 ppm
Ireland	OEL (15 min ref) (mg/m ³)	0.24 mg/m ³ (calculated)
Ireland	OEL (15 min ref) (ppm)	0.03 ppm (calculated)
Norway	Grenseverdier (AN) (mg/m ³)	0.08 mg/m ³
Norway	Grenseverdier (AN) (ppm)	0.01 ppm
Norway	Grenseverdier (Korttidsverdi) (mg/m ³)	0.08 mg/m ³
Norway	Grenseverdier (Korttidsverdi) (ppm)	0.01 ppm
Slovakia	NPHV (priemerná) (mg/m ³)	0.81 mg/m ³
Slovakia	NPHV (priemerná) (ppm)	0.1 ppm
Slovakia	NPHV (Hraničná) (mg/m ³)	1.62 mg/m ³
Canada (Quebec)	VECD (mg/m ³)	0.45 mg/m ³
Canada (Quebec)	VECD (ppm)	0.2 ppm
Canada (Quebec)	VEMP (mg/m ³)	0.23 mg/m ³
Canada (Quebec)	VEMP (ppm)	0.1 ppm
Australia	TWA (mg/m ³)	0.23 mg/m ³
Australia	TWA (ppm)	0.1 ppm
Australia	STEL (mg/m ³)	0.45 mg/m ³
Australia	STEL (ppm)	0.2 ppm
Portugal	OEL TWA (ppm)	0.1 ppm
Portugal	OEL STEL (ppm)	0.2 ppm

IRON CARBONYL, tech-95

Safety Data Sheet

8.2. Exposure controls

Appropriate engineering controls:

Provide local exhaust or general room ventilation.

Personal protective equipment:

Avoid all unnecessary exposure. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.

Hand protection:

Neoprene or nitrile rubber gloves

Eye protection:

Chemical goggles or face shield. Contact lenses should not be worn

Skin and body protection:

Wear suitable protective clothing. Long-sleeved fire-resistant lab uniform or coverall is recommended.

Respiratory protection:

Where exposure through inhalation may occur from use, respiratory protection equipment is recommended. NIOSH-certified organic vapor (black cartridge) respirator.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: Liquid.
Molecular mass	: 195.9 g/mol
Colour	: dark red.
Odour	: No data available
Odour threshold	: No data available
Refractive index	: 1.5196
pH	: No data available
Relative evaporation rate (butylacetate=1)	: > 1
Melting point	: -20 °C
Freezing point	: No data available
Boiling point	: 103 °C
Flash point	: -15 °C
Critical temperature	: 285 - 288 °C
Auto-ignition temperature	: 55 °C
Decomposition temperature	: No data available
Flammability (solid, gas)	: Highly flammable liquid and vapour.
Vapour pressure	: 30.3 mm Hg @ 40 mm Hg
Critical pressure	: 29.6 atm
Relative vapour density at 20 °C	: 1.1 (methanol)
Relative density	: 0.95
Solubility	: Insoluble in water. Organic solvent: Soluble: ether, ethyl acetate, toluene
Log Pow	: No data available
Log Kow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: 3.7 - 12.5 vol % (lower; upper)

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

IRON CARBONYL, tech-95

Safety Data Sheet

10.2. Chemical stability

Stable when stored in the dark in sealed containers.

10.3. Possibility of hazardous reactions

Decomposes at temperatures exceeding 100°C. Material decomposes slowly in contact with moist air or with water liberating carbon monoxide.

10.4. Conditions to avoid

Heat. Sparks. Open flame.

10.5. Incompatible materials

Alkalis. Amines. Oxidizing agent.

10.6. Hazardous decomposition products

Carbon monoxide. Iron. Iron oxide. Organic acid vapors.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Fatal if swallowed. Fatal in contact with skin. Fatal if inhaled.

IRON CARBONYL, tech-95 (13463-40-6)

ATE CLP (oral)	31 mg/kg bodyweight
ATE CLP (dermal)	56 mg/kg bodyweight
ATE CLP (vapours)	0.32 mg/l/4h

Iron carbonyl (13463-40-6)

LD50 oral rat	31 mg/kg
LD50 oral mouse	62 mg/kg
LD50 oral rabbit	12 mg/kg
LD50 oral guinea pig	22 mg/kg
LD50 dermal rabbit	56 mg/kg RTECS Number: NO4900000
LC50 inhalation rat (mg/l)	0.32 mg/l/4h
LC50 inhalation rat (ppm)	10 ppm/4h
LC50 inhalation rat	43.5 mg/m ³
ATE CLP (oral)	31 mg/kg bodyweight
ATE CLP (dermal)	56 mg/kg bodyweight
ATE CLP (gases)	10 ppmv/4h
ATE CLP (vapours)	0.32 mg/l/4h
ATE CLP (dust,mist)	0.32 mg/l/4h

Skin corrosion/irritation : Not classified

Serious eye damage/irritation : Not classified

Respiratory or skin sensitisation : Not classified

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

None of the components in this product at concentrations >0.1% are listed by IARC, NTP, OSHA or ACGIH as a carcinogen.

Reproductive toxicity : Not classified

STOT-single exposure : Not classified

STOT-repeated exposure : Causes damage to organs (lungs) through prolonged or repeated exposure.

Aspiration hazard : Not classified

Potential adverse human health effects and symptoms : While toxicity data is available, it is reasonable to assume that the iron carbonyl will generate carbon monoxide which complexes with hemoglobin.

Symptoms/effects after inhalation : Fatal if inhaled. Danger of serious damage to health by prolonged exposure through inhalation. Low levels may cause headache, nausea, dizziness, vomiting and unconsciousness. Prolonged or high levels of exposure may cause cyanosis and circulatory collapse.

Symptoms/effects after skin contact : Fatal in contact with skin. May cause skin irritation. Repeated exposure to this material can result in absorption through skin causing significant health hazard.

Symptoms/effects after eye contact : May cause eye irritation.

Symptoms/effects after ingestion : Fatal if swallowed. Swallowing a small quantity of this material will result in serious health hazard.

Reason for classification : Expert judgment

SECTION 12: Ecological information

12.1. Toxicity

Acute aquatic toxicity : Not classified

IRON CARBONYL, tech-95

Safety Data Sheet

Chronic aquatic toxicity : Not classified

Iron carbonyl (13463-40-6)

EC50 Daphnia 1 130 mg/l (Exposure time: 48 h - Species: Daphnia magna)

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

Iron carbonyl (13463-40-6)

Log Pow 3 (at 25 °C)

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Other adverse effects

Other adverse effects : This substance may be hazardous to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Sewage disposal recommendations : Do not dispose of waste into sewer.

Product/Packaging disposal recommendations : Dispose in a safe manner in accordance with local/national regulations. In a well ventilated area, treat a dilute basic (pH 10-11) slurry of the material with 50% excess of sodium hypochlorite (laundry bleach). Control temperature by rate of addition. Absorb slurry onto clay or other inert material and landfill in accordance with regulations. Dispose of contents/container to licensed waste disposal facility.

Additional information : Handle empty containers with care because residual vapours are flammable.

Ecology - waste materials : Avoid release to the environment.

SECTION 14: Transport information

14.1. UN number

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

14.1. UN number

UN-No. (ADR) : 1994

UN-No. (IMDG) : 1994

UN-No. (IATA) : 1994

UN-No. (ADN) : 1994

UN-No. (RID) : 1994

14.2. UN proper shipping name

Proper Shipping Name (ADR) : IRON PENTACARBONYL

Proper Shipping Name (IMDG) : IRON PENTACARBONYL

Proper Shipping Name (IATA) : Iron pentacarbonyl

Proper Shipping Name (ADN) : IRON PENTACARBONYL

Proper Shipping Name (RID) : IRON PENTACARBONYL

Transport document description (ADR) : UN 1994 IRON PENTACARBONYL, 6.1 (3), I, (C/D)

Transport document description (IMDG) : UN 1994 IRON PENTACARBONYL, 6.1 (3), I (-15°C c.c.)

Transport document description (IATA) : UN 1994 Iron pentacarbonyl, 6.1

Transport document description (ADN) : UN 1994 IRON PENTACARBONYL, 6.1 (3), I

Transport document description (RID) : UN 1994 IRON PENTACARBONYL, 6.1 (3), I

14.3. Transport hazard class(es)

ADR

Transport hazard class(es) (ADR) : 6.1 (3)

Danger labels (ADR) : 6.1, 3



IRON CARBONYL, tech-95

Safety Data Sheet

IMDG

Transport hazard class(es) (IMDG) : 6.1 (3)

Danger labels (IMDG) : 6.1, 3



IATA

Transport hazard class(es) (IATA) : 6.1 (3)

ADN

Transport hazard class(es) (ADN) : 6.1 (3)

Danger labels (ADN) : 6.1, 3



RID

Transport hazard class(es) (RID) : 6.1 (3)

Danger labels (RID) : 6.1, 3



14.4. Packing group

Packing group (ADR) : I
Packing group (IMDG) : I
Packing group (IATA) : Not applicable
Packing group (ADN) : I
Packing group (RID) : I

14.5. Environmental hazards

Dangerous for the environment : No
Marine pollutant : No
Other information : No supplementary information available

14.6. Special precautions for user

- Overland transport

Classification code (ADR) : TF1
Special provisions (ADR) : 354
Limited quantities (ADR) : 0
Excepted quantities (ADR) : E0
Packing instructions (ADR) : P601
Mixed packing provisions (ADR) : MP2
Portable tank and bulk container instructions (ADR) : T22
Portable tank and bulk container special provisions (ADR) : TP2
Tank code (ADR) : L15CH
Tank special provisions (ADR) : TU14, TU15, TU31, TE19, TE21, TM3
Vehicle for tank carriage : FL

IRON CARBONYL, tech-95

Safety Data Sheet

Transport category (ADR)	: 1
Special provisions for carriage - Loading, unloading and handling (ADR)	: CV1, CV13, CV28
Special provisions for carriage - Operation (ADR)	: S2, S9, S14
Hazard identification number (Kemler No.)	: 663
Orange plates	:

663

1994

Tunnel restriction code (ADR)	: C/D
EAC code	: 2WE
APP code	: A(fl)

- Transport by sea

Special provisions (IMDG)	: 354
Limited quantities (IMDG)	: 0
Excepted quantities (IMDG)	: E0
Packing instructions (IMDG)	: P601
Tank instructions (IMDG)	: T22
Tank special provisions (IMDG)	: TP2, TP13
EmS-No. (Fire)	: F-E
EmS-No. (Spillage)	: S-D
Stowage category (IMDG)	: D
Stowage and handling (IMDG)	: SW2
Flash point (IMDG)	: -15°C c.c.
Properties and observations (IMDG)	: Yellow to dark red, volatile flammable liquid. Flashpoint: -15°C c.c. Explosive limits: 3.7% to 12.5% May react with water or steam, evolving carbon monoxide, which is a toxic gas. Highly toxic if swallowed, by skin contact or by inhalation.

- Air transport

PCA Limited quantities (IATA)	: Forbidden
PCA limited quantity max net quantity (IATA)	: Forbidden
PCA packing instructions (IATA)	: Forbidden
PCA max net quantity (IATA)	: Forbidden
CAO packing instructions (IATA)	: Forbidden
CAO max net quantity (IATA)	: Forbidden
ERG code (IATA)	: 6H

- Inland waterway transport

Classification code (ADN)	: TF1
Special provisions (ADN)	: 354, 802
Limited quantities (ADN)	: 0
Excepted quantities (ADN)	: E0
Equipment required (ADN)	: PP, EP, EX, TOX, A
Ventilation (ADN)	: VE01, VE02
Number of blue cones/lights (ADN)	: 2

- Rail transport

Classification code (RID)	: TF1
Special provisions (RID)	: 354
Limited quantities (RID)	: 0
Excepted quantities (RID)	: E0
Packing instructions (RID)	: P601
Mixed packing provisions (RID)	: MP2
Portable tank and bulk container instructions (RID)	: T22
Portable tank and bulk container special provisions (RID)	: TP2
Tank codes for RID tanks (RID)	: L15CH
Special provisions for RID tanks (RID)	: TU14, TU15, TU31, TU38, TE21, TE22, TE25, TM3

IRON CARBONYL, tech-95

Safety Data Sheet

Transport category (RID)	: 1
Special provisions for carriage - Loading, unloading and handling (RID)	: CW13, CW28, CW31
Hazard identification number (RID)	: 663

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

No REACH Annex XVII restrictions

IRON CARBONYL, tech-95 is not on the REACH Candidate List

IRON CARBONYL, tech-95 is not on the REACH Annex XIV List

IRON CARBONYL, tech-95 is not subject to REGULATION (EU) No 649/2012 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 4 July 2012 concerning the export and import of hazardous chemicals.

IRON CARBONYL, tech-95 is not subject to Regulation (EC) No 850/2004 of the European Parliament and of the Council of 29 April 2004 on persistent organic pollutants and amending Directive 79/117/EEC

15.1.2. National regulations

Germany

Reference to AwSV : Water hazard class (WGK) 2, Significantly hazardous to water (Classification according to VwVwS, Annex 3; ID No. 2610)

12th Ordinance Implementing the Federal Immission Control Act - 12.BImSchV : Is not subject of the 12. BImSchV (Hazardous Incident Ordinance)

Netherlands

SZW-lijst van kankerverwekkende stoffen : The substance is not listed

SZW-lijst van mutagene stoffen : The substance is not listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Borstvoeding : The substance is not listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Vruchtbaarheid : The substance is not listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Ontwikkeling : The substance is not listed

Denmark

Classification remarks : Emergency management guidelines for the storage of flammable liquids must be followed

Danish National Regulations : Young people below the age of 18 years are not allowed to use the product
Pregnant/breastfeeding women working with the product must not be in direct contact with the product

15.2. Chemical safety assessment

No additional information available

SECTION 16: Other information

Abbreviations and acronyms:

Abbreviations: ND: Not Determined, No Data; NA: Not Applicable; LD: Lethal Dose; LC: Lethal Concentration; ATE: Acute Toxicity Estimates; H: hour; °: °C unless otherwise stated; mm: millimeters Hg, torr; PEL: permissible exposure level; TWA: time weighted average; TLV: threshold limit value; TG: Test Guideline; NIOSH: National Institute for Occupational Safety and Health; IARC: International Agency for Research on Cancer; NTP: National Toxicology Program; HMIS: Hazardous Material Information System; CAS No.: Chemical Abstract Service Registration Number; EC No.: European Commission Registration Number; EC Index No.: European Commission Index Number; OECD: The Organisation for Economic Co-operation and Development; GHS: The Globally Harmonized System of Classification and Labelling; APF: Assigned Protection Factor

Other information : Prepared by safety and environmental affairs.

Full text of H- and EUH-statements:

Acute Tox. 1 (Inhalation:vapour)	Acute toxicity (inhalation:vapour) Category 1
Acute Tox. 2 (Dermal)	Acute toxicity (dermal), Category 2
Acute Tox. 2 (Oral)	Acute toxicity (oral), Category 2
Flam. Liq. 2	Flammable liquids, Category 2
STOT RE 1	Specific target organ toxicity — Repeated exposure, Category 1
H225	Highly flammable liquid and vapour.

IRON CARBONYL, tech-95

Safety Data Sheet

H300	Fatal if swallowed.
H310	Fatal in contact with skin.
H330	Fatal if inhaled.
H372	Causes damage to organs through prolonged or repeated exposure.

SDS EU (REACH Annex II) - Custom

The information contained in this document has been gathered from reference materials and/or Gelest, Inc. test data and is to the best knowledge and belief of Gelest, Inc. accurate and reliable. Such information is offered solely for your consideration, investigation and verification. It is not suggested or guaranteed that the hazard precautions or procedures described are the only ones which exist. Gelest, Inc. makes no warranties, express or implied, with respect to the use of such information and assumes no responsibility therefore. Information on this safety data sheet is not intended to constitute a basis for product specifications.

© 2019 Gelest Inc. Morrisville, PA 19067

