

Ifosfamide

Version number: GHS 2.0
Replaces version of: 2019-06-03 (GHS 1)

Revision: 2019-06-03

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

1.1 Product identifier

Identification of the substance	Ifosfamide
Registration number (REACH)	this information is not available
CAS number	3778-73-2
Article number	A0038458

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

Relevant identified uses	General use
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1.3 Details of the supplier of the safety data sheet

Chemos GmbH & Co. KG
Sonnenring 7
84032 Altdorf
Germany

Telephone: +49 871-966346-0
Telefax: +49 871-966346-13
e-mail: chemos@chemos.de
Website: <http://www.chemos.de/>

e-mail (competent person) chemos@chemos.de

1.4 Emergency telephone number

Emergency information service
This number is only available during the following office hours: Mon - Thu 08:00 AM - 05:00 PM, Fri 08:00 AM - 12:00 PM

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

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

Section	Hazard class	Category	Hazard class and category	Hazard statement
3.10	acute toxicity (oral)	3	Acute Tox. 3	H301
3.3	serious eye damage/eye irritation	2	Eye Irrit. 2	H319
3.5	germ cell mutagenicity	1	Muta. 1	H340
3.6	carcinogenicity	1	Carc. 1	H350
3.7	reproductive toxicity	1	Repr. 1	H360

For full text of abbreviations: see SECTION 16.

2.2 Label elements

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

- Signal word danger

- Pictograms

GHS06, GHS08



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- Hazard statements

H301	Toxic if swallowed.
H319	Causes serious eye irritation.
H340	May cause genetic defects.
H350	May cause cancer.
H360	May damage fertility or the unborn child.

- Precautionary statements

P201	Obtain special instructions before use.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P301+P310	IF SWALLOWED: Immediately call a POISON CENTER/doctor.
P308+P313	IF exposed or concerned: Get medical advice/attention.
P337+P313	If eye irritation persists: Get medical advice/attention.
P501	Dispose of contents/container to industrial combustion plant.

2.3 Other hazards

Results of PBT and vPvB assessment

According to the results of its assessment, this substance is not a PBT or a vPvB.

SECTION 3: Composition/information on ingredients

3.1 Substances

Name of substance	Ifosfamide
Identifiers	
CAS No	3778-73-2
Molecular formula	C ₇ H ₁₅ Cl ₂ N ₂ O ₂ P
Molar mass	261.1 g/mol

SECTION 4: First aid measures

4.1 Description of first aid measures

General notes

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

Following inhalation

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

Following skin contact

Wash with plenty of soap and water.

Following eye contact

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

Following ingestion

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

4.2 Most important symptoms and effects, both acute and delayed

Symptoms and effects are not known to date.

4.3 Indication of any immediate medical attention and special treatment needed

none

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SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

Water, Foam, ABC-powder

Unsuitable extinguishing media

Water jet

5.2 Special hazards arising from the substance or mixture

Hazardous combustion products

Nitrogen oxides (NO_x), Carbon monoxide (CO), Carbon dioxide (CO₂), Phosphorus oxides (P_xO_y)

5.3 Advice for firefighters

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

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Remove persons to safety.

For emergency responders

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

6.2 Environmental precautions

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

6.3 Methods and material for containment and cleaning up

Advices on how to contain a spill

Covering of drains, Take up mechanically

Advices on how to clean up a spill

Take up mechanically.

Other information relating to spills and releases

Place in appropriate containers for disposal. Ventilate affected area.

6.4 Reference to other sections

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

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Recommendations

- Measures to prevent fire as well as aerosol and dust generation

Use local and general ventilation. Use only in well-ventilated areas. Ground/bond container and receiving equipment.

- Specific notes/details

Dust deposits may accumulate on all deposition surfaces in a technical room. The product in the delivered form is not dust explosion capable; the enrichment of fine dust however leads to the danger of dust explosion.

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Advice on general occupational hygiene

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

7.2 Conditions for safe storage, including any incompatibilities

Managing of associated risks

- Explosive atmospheres

Removal of dust deposits.

7.3 Specific end use(s)

See section 16 for a general overview.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

This information is not available.

8.2 Exposure controls

Appropriate engineering controls

General ventilation.

Individual protection measures (personal protective equipment)

Eye/face protection

Wear eye/face protection.

Skin protection

- Hand protection

In the case of wanting to use the gloves again, clean them before taking off and air them well.

- Other protection measures

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

Respiratory protection

In case of inadequate ventilation wear respiratory protection.

Environmental exposure controls

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

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

Physical state	solid (crystalline)
Colour	white
Odour	characteristic

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Other safety parameters

pH (value)	4 – 7
Melting point/freezing point	39 – 42 °C
Initial boiling point and boiling range	not determined
Flash point	not applicable
Evaporation rate	not determined
Flammability (solid, gas)	this material is combustible, but will not ignite readily
Explosion limits of dust clouds	not determined
Vapour pressure	not determined
Density	not determined
Vapour density	this information is not available
Relative density	information on this property is not available
Solubility(ies)	not determined

Partition coefficient

- n-octanol/water (log KOW)	this information is not available
Auto-ignition temperature	not determined
Viscosity	not relevant (solid matter)
Explosive properties	none
Oxidising properties	none

9.2 Other information

Solid content	100 %
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SECTION 10: Stability and reactivity

10.1 Reactivity

Concerning incompatibility: see below "Conditions to avoid" and "Incompatible materials".

10.2 Chemical stability

See below "Conditions to avoid".

10.3 Possibility of hazardous reactions

No known hazardous reactions.

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10.4 Conditions to avoid

There are no specific conditions known which have to be avoided.

Hints to prevent fire or explosion

The product in the delivered form is not dust explosion capable; the enrichment of fine dust however leads to the danger of dust explosion.

10.5 Incompatible materials

Oxidisers

10.6 Hazardous decomposition products

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

SECTION 11: Toxicological information

11.1 Information on toxicological effects

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

Acute toxicity

Toxic if swallowed.

- Acute toxicity estimate (ATE)

Oral 100 mg/kg

Skin corrosion/irritation

Shall not be classified as corrosive/irritant to skin.

Serious eye damage/eye irritation

Causes serious eye irritation.

Respiratory or skin sensitisation

Shall not be classified as a respiratory or skin sensitiser.

Germ cell mutagenicity

May cause genetic defects.

Carcinogenicity

May cause cancer.

Reproductive toxicity

May damage the unborn child. May damage fertility.

Specific target organ toxicity - single exposure

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

Specific target organ toxicity - repeated exposure

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

Aspiration hazard

Shall not be classified as presenting an aspiration hazard.

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SECTION 12: Ecological information**12.1 Toxicity**

Shall not be classified as hazardous to the aquatic environment.

12.2 Persistence and degradability

Data are not available.

12.3 Bioaccumulative potential

Data are not available.

12.4 Mobility in soil

Data are not available.

12.5 Results of PBT and vPvB assessment

Data are not available.

12.6 Other adverse effects

Data are not available.

SECTION 13: Disposal considerations**13.1 Waste treatment methods**

Sewage disposal-relevant information

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

Waste treatment of containers/packagings

Completely emptied packages can be recycled. Handle contaminated packages in the same way as the substance itself.

Remarks

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

SECTION 14: Transport information

14.1 UN number	2811
14.2 UN proper shipping name	TOXIC SOLID, ORGANIC, N.O.S. not relevant
14.3 Transport hazard class(es)	
Class	6.1 (toxic substances)
14.4 Packing group	III (substance presenting low danger)
14.5 Environmental hazards	non-environmentally hazardous acc. to the dangerous goods regulations
14.6 Special precautions for user	
There is no additional information.	
14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code	
The cargo is not intended to be carried in bulk.	

Information for each of the UN Model Regulations

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

Not subject to ADR, RID and ADN.

International Maritime Dangerous Goods Code (IMDG)

UN number	2811
Proper shipping name	TOXIC SOLID, ORGANIC, N.O.S.
Class	6.1
Marine pollutant	-
Packing group	III
Danger label(s)	6.1



Special provisions (SP)	223, 274
Excepted quantities (EQ)	E1
Limited quantities (LQ)	5 kg
EmS	F-A, S-A
Stowage category	A

International Civil Aviation Organization (ICAO-IATA/DGR)

UN number	2811
Proper shipping name	Toxic solid, organic, n.o.s.
Class	6.1
Packing group	III
Danger label(s)	6.1



Special provisions (SP)	A3, A5
Excepted quantities (EQ)	E1
Limited quantities (LQ)	10 kg

SECTION 15: Regulatory information

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

15.2 Chemical Safety Assessment

No Chemical Safety Assessment has been carried out for this substance.

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SECTION 16: Other information
Indication of changes (revised safety data sheet)

Section	Former entry (text/value)	Actual entry (text/value)	Safety-relevant
2.1	Classification according to Regulation (EC) No 1272/2008 (CLP): This substance does not meet the criteria for classification in accordance with Regulation No 1272/2008/EC.	Classification according to Regulation (EC) No 1272/2008 (CLP)	yes
2.1		Classification according to Regulation (EC) No 1272/2008 (CLP): change in the listing (table)	yes
2.2	Labelling according to Regulation (EC) No 1272/2008 (CLP): not required	Labelling according to Regulation (EC) No 1272/2008 (CLP)	yes
2.2		- Signal word: danger	yes
2.2		- Pictograms	yes
2.2		- Pictograms: change in the listing (table)	yes
2.2		- Hazard statements: change in the listing (table)	yes
2.2		- Precautionary statements: change in the listing (table)	yes
7.2	- Packaging compatibilities: Only packagings which are approved (e.g. acc. to ADR) may be used.		yes
8.2	Hand protection: Wear protective gloves.	Hand protection: In the case of wanting to use the gloves again, clean them before taking off and air them well.	yes
9.1	Colour: various	Colour: white	yes
9.1	pH (value): not applicable	pH (value): 4 – 7	yes
9.1	Melting point/freezing point: 48 °C	Melting point/freezing point: 39 – 42 °C	yes
10.2	Chemical stability: The material is stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.	Chemical stability: See below "Conditions to avoid".	yes
11.1	Classification according to GHS (1272/2008/EC, CLP): This substance does not meet the criteria for classification in accordance with Regulation No 1272/2008/EC.	Classification according to GHS (1272/2008/EC, CLP)	yes
11.1	Acute toxicity: Shall not be classified as acutely toxic.	Acute toxicity: Toxic if swallowed.	yes
11.1		- Acute toxicity estimate (ATE): change in the listing (table)	yes
11.1	Serious eye damage/eye irritation: Shall not be classified as seriously damaging to the eye or eye irritant.	Serious eye damage/eye irritation: Causes serious eye irritation.	yes

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Section	Former entry (text/value)	Actual entry (text/value)	Safety-rel- evant
11.1	Germ cell mutagenicity: Shall not be classified as germ cell mutagenic.	Germ cell mutagenicity: May cause genetic defects.	yes
11.1	Carcinogenicity: Shall not be classified as carcinogenic.	Carcinogenicity: May cause cancer.	yes
11.1	Reproductive toxicity: Shall not be classified as a reproductive toxicant.	Reproductive toxicity: May damage the unborn child. May damage fer- tility.	yes
13.1	Waste treatment of containers/packagings: It is a dangerous waste; only packagings which are approved (e.g. acc. to ADR) may be used. Completely emptied packages can be recycled. Handle contaminated packages in the same way as the substance itself.	Waste treatment of containers/packagings: Completely emptied packages can be recycled. Handle contaminated packages in the same way as the substance itself.	yes
14.2	UN proper shipping name: TOXIC SOLID, ORGANIC, N.O.S.	UN proper shipping name: TOXIC SOLID, ORGANIC, N.O.S. not relevant	yes
14.6	Special precautions for user: Provisions for dangerous goods (ADR) should be complied within the premises.	Special precautions for user: There is no additional information.	yes
14.7	Transport of dangerous goods by road, rail and inland waterway (ADR/RID/ADN)	Transport of dangerous goods by road, rail and inland waterway (ADR/RID/ADN): Not subject to ADR, RID and ADN.	yes
14.7	UN number: 2811		yes
14.7	Proper shipping name: TOXIC SOLID, ORGANIC, N.O.S.		yes
14.7	Class: 6.1		yes
14.7	Classification code: T2		yes
14.7	Packing group: III		yes
14.7	Danger label(s): 6.1		yes
14.7		Danger label(s): change in the listing (table)	yes
14.7	Special provisions (SP): 274, 614, 802(ADN)		yes
14.7	Excepted quantities (EQ): E1		yes
14.7	Limited quantities (LQ): 5 kg		yes
14.7	Transport category (TC): 2		yes
14.7	Tunnel restriction code (TRC): E		yes
14.7	Hazard identification No: 60		yes
14.7	Emergency Action Code: 2X		yes

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Section	Former entry (text/value)	Actual entry (text/value)	Safety-relevant
14.7	International Maritime Dangerous Goods Code (IMDG): Not subject to IMDG.	International Maritime Dangerous Goods Code (IMDG)	yes
14.7		UN number: 2811	yes
14.7		Proper shipping name: TOXIC SOLID, ORGANIC, N.O.S.	yes
14.7		Class: 6.1	yes
14.7		Marine pollutant: -	yes
14.7		Packing group: III	yes
14.7		Danger label(s): 6.1	yes
14.7		Danger label(s): change in the listing (table)	yes
14.7		Special provisions (SP): 223, 274	yes
14.7		Excepted quantities (EQ): E1	yes
14.7		Limited quantities (LQ): 5 kg	yes
14.7		EmS: F-A, S-A	yes
14.7		Stowage category: A	yes
14.7	International Civil Aviation Organization (ICAO-IATA/DGR): Not subject to ICAO-IATA.	International Civil Aviation Organization (ICAO-IATA/DGR)	yes
14.7		UN number: 2811	yes
14.7		Proper shipping name: Toxic solid, organic, n.o.s.	yes
14.7		Class: 6.1	yes
14.7		Packing group: III	yes
14.7		Danger label(s): 6.1	yes
14.7		Danger label(s): change in the listing (table)	yes
14.7		Special provisions (SP): A3, A5	yes
14.7		Excepted quantities (EQ): E1	yes
14.7		Limited quantities (LQ): 10 kg	yes

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Section	Former entry (text/value)	Actual entry (text/value)	Safety-relevant
16		Abbreviations and acronyms: change in the listing (table)	yes
16		List of relevant phrases (code and full text as stated in chapter 2 and 3)	yes
16		List of relevant phrases (code and full text as stated in chapter 2 and 3): change in the listing (table)	yes

Abbreviations and acronyms

Abbr.	Descriptions of used abbreviations
ADN	Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieures (European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways)
ADR	Accord européen relatif au transport international des marchandises dangereuses par route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
CAS	Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances)
CLP	Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures
DGR	Dangerous Goods Regulations (see IATA/DGR)
EmS	Emergency Schedule
GHS	"Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations
IATA	International Air Transport Association
IATA/DGR	Dangerous Goods Regulations (DGR) for the air transport (IATA)
ICAO	International Civil Aviation Organization
IMDG	International Maritime Dangerous Goods Code
MARPOL	International Convention for the Prevention of Pollution from Ships (abbr. of "Marine Pollutant")
PBT	Persistent, Bioaccumulative and Toxic
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
RID	Règlement concernant le transport International ferroviaire des marchandises Dangereuses (Regulations concerning the International carriage of Dangerous goods by Rail)
vPvB	Very Persistent and very Bioaccumulative

Key literature references and sources for data

Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures. Regulation (EC) No. 1907/2006 (REACH), amended by 2015/830/EU.

Transport of dangerous goods by road, rail and inland waterway (ADR/RID/ADN). International Maritime Dangerous Goods Code (IMDG). Dangerous Goods Regulations (DGR) for the air transport (IATA).

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

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Code	Text
H301	Toxic if swallowed.
H319	Causes serious eye irritation.
H340	May cause genetic defects.
H350	May cause cancer.
H360	May damage fertility or the unborn child.

Disclaimer

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