CI TCI EUROPE N.V.

SAFETY DATA SHEET

According to 1907/2006/EC, Article 31

R	
SECTION 1: Identification of the	e substance/mixture and of the company/undertaking
.1 Product identifiers	
Product name:	Spermidine Phosphate Hexahydrate
Product code:	S0385
.2 Relevant identified uses of the s Identified uses:	ubstance or mixture and uses advised against Reagents.
.3 Details of the supplier of the safe	ety data sheet
Supplier:	
TCI EUROPE N.V.	
Boerenveldseweg 6	
Haven 1063	
B-2070 Zwijndrecht	00
Telephone: +32(0)3 735 07 E-mail: sales-eu@tcichemic	
.4 Emergency telephone number:	+32(0)70 245 245
SECTION 2: Hazards identificati	ion
2.1 Classification of the substance of	
Skin corrosion/irritation	Category 2
Serious eye damage/eye irritatio	Cotogony 2
2.2 Label elements Pictograms or hazard symbols	on Category 2
	Warning H315-Causes skin irritation.
Pictograms or hazard symbols	Warning H315-Causes skin irritation. H319-Causes serious eye irritation.
Pictograms or hazard symbols	Warning H315-Causes skin irritation. H319-Causes serious eye irritation. P264-Wash hands and face thoroughly after handling. P280-Wear protective gloves, eye protection. P302+P352+P332+P313+P362+P364-IF ON SKIN: Wash with plenty of water. If skin irritation occur: Get medical advice or attention. Take off contaminated clothing and wash it before reuse. P305+P351+P338+P337+P313-IF IN EYES: Rinse cautiously with water for several minutes. Remov
Pictograms or hazard symbols	Warning H315-Causes skin irritation. H319-Causes serious eye irritation. P264-Wash hands and face thoroughly after handling. P280-Wear protective gloves, eye protection. P302+P352+P332+P313+P362+P364-IF ON SKIN: Wash with plenty of water. If skin irritation occur: Get medical advice or attention. Take off contaminated clothing and wash it before reuse.
Pictograms or hazard symbols Signal word Hazard statements Precautionary statements	Warning H315-Causes skin irritation. H319-Causes serious eye irritation. P264-Wash hands and face thoroughly after handling. P280-Wear protective gloves, eye protection. P302+P352+P332+P313+P362+P364-IF ON SKIN: Wash with plenty of water. If skin irritation occurs Get medical advice or attention. Take off contaminated clothing and wash it before reuse. P305+P351+P338+P337+P313-IF IN EYES: Rinse cautiously with water for several minutes. Remov contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advic or attention.
Pictograms or hazard symbols Signal word Hazard statements Precautionary statements	Warning H315-Causes skin irritation. H319-Causes serious eye irritation. P264-Wash hands and face thoroughly after handling. P280-Wear protective gloves, eye protection. P302+P352+P332+P313+P362+P364-IF ON SKIN: Wash with plenty of water. If skin irritation occurs Get medical advice or attention. Take off contaminated clothing and wash it before reuse. P305+P351+P338+P337+P313-IF IN EYES: Rinse cautiously with water for several minutes. Remov contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advic or attention.
Pictograms or hazard symbols Signal word Hazard statements Precautionary statements	Warning H315-Causes skin irritation. H319-Causes serious eye irritation. P264-Wash hands and face thoroughly after handling. P280-Wear protective gloves, eye protection. P302+P352+P332+P313+P362+P364-IF ON SKIN: Wash with plenty of water. If skin irritation occurs Get medical advice or attention. Take off contaminated clothing and wash it before reuse. P305+P351+P338+P337+P313-IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advic or attention.
Pictograms or hazard symbols Signal word Hazard statements Precautionary statements	Warning H315-Causes skin irritation. H319-Causes serious eye irritation. P264-Wash hands and face thoroughly after handling. P280-Wear protective gloves, eye protection. P302+P352+P332+P313+P362+P364-IF ON SKIN: Wash with plenty of water. If skin irritation occurs Get medical advice or attention. Take off contaminated clothing and wash it before reuse. P305+P351+P338+P337+P313-IF IN EYES: Rinse cautiously with water for several minutes. Remov contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advic or attention.
Pictograms or hazard symbols Signal word Hazard statements Precautionary statements Results of PBT and vPvB assessi PBT: vPvB:	Warning H315-Causes skin irritation. H319-Causes serious eye irritation. P264-Wash hands and face thoroughly after handling. P280-Wear protective gloves, eye protection. P302+P352+P332+P313+P362+P364-IF ON SKIN: Wash with plenty of water. If skin irritation occur: Get medical advice or attention. Take off contaminated clothing and wash it before reuse. P305+P351+P338+P337+P313-IF IN EYES: Rinse cautiously with water for several minutes. Remov contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advi or attention.
Pictograms or hazard symbols Signal word Hazard statements Precautionary statements Precautionary statements 2.3 Other hazards Results of PBT and vPvB assess PBT: vPvB: SECTION 3: Composition/inform 3.1 Substances	Warning H315-Causes skin irritation. H319-Causes serious eye irritation. P264-Wash hands and face thoroughly after handling. P280-Wear protective gloves, eye protection. P302+P352+P332+P313+P362+P364-IF ON SKIN: Wash with plenty of water. If skin irritation occur: Get medical advice or attention. Take off contaminated clothing and wash it before reuse. P305+P351+P338+P337+P313-IF IN EYES: Rinse cautiously with water for several minutes. Remov contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advi or attention. nent Not applicable Not applicable
Pictograms or hazard symbols Signal word Hazard statements Precautionary statements Precautionary statements 2.3 Other hazards Results of PBT and vPvB assess PBT: vPvB: SECTION 3: Composition/inform 3.1 Substances Components:	Warning H315-Causes skin irritation. H319-Causes serious eye irritation. P264-Wash hands and face thoroughly after handling. P280-Wear protective gloves, eye protection. P302+P352+P332+P313+P362+P364-IF ON SKIN: Wash with plenty of water. If skin irritation occur: Get medical advice or attention. Take off contaminated clothing and wash it before reuse. P305+P3351+P338+P337+P313-IF IN EYES: Rinse cautiously with water for several minutes. Remov contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advi or attention. nent Not applicable Not applicable nation on ingredients Spermidine Phosphate Hexahydrate
Pictograms or hazard symbols Signal word Hazard statements Precautionary statements Precautionary statements A Other hazards Results of PBT and vPvB assess PBT: vPvB: SECTION 3: Composition/inform A Substances Components: Percent:	Warning H315-Causes skin irritation. H319-Causes serious eye irritation. P264-Wash hands and face thoroughly after handling. P280-Wear protective gloves, eye protection. P302+P352+P332+P313+P362+P364-IF ON SKIN: Wash with plenty of water. If skin irritation occur: Get medical advice or attention. Take off contaminated clothing and wash it before reuse. P305+P351+P338+P337+P313-IF IN EYES: Rinse cautiously with water for several minutes. Remov contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advi or attention. nent Not applicable Not applicable nation on ingredients Spermidine Phosphate Hexahydrate >98.0%(T)
Pictograms or hazard symbols Signal word Hazard statements Precautionary statements Precautionary statements PBT: vPvB: SECTION 3: Composition/inform 3.1 Substances Components: Percent: CAS RN:	Warning H315-Causes skin irritation. H319-Causes serious eye irritation. P264-Wash hands and face thoroughly after handling. P280-Wear protective gloves, eye protection. P302+P352+P332+P313+P362+P364-IF ON SKIN: Wash with plenty of water. If skin irritation occurs Get medical advice or attention. Take off contaminated clothing and wash it before reuse. P305+P351+P338+P337+P313-IF IN EYES: Rinse cautiously with water for several minutes. Remov contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advic or attention. nent Not applicable Not applicable nation on ingredients Spermidine Phosphate Hexahydrate >98.0%(T) 49721-50-8
Pictograms or hazard symbols Signal word Hazard statements Precautionary statements Precautionary statements Precautionary statements SECTION 3: Composition/inform SECTION 3: Composition 4: Composition	Warning H315-Causes skin irritation. H319-Causes serious eye irritation. P264-Wash hands and face thoroughly after handling. P280-Wear protective gloves, eye protection. P302+P352+P332+P313+P362+P364-IF ON SKIN: Wash with plenty of water. If skin irritation occur: Get medical advice or attention. Take off contaminated clothing and wash it before reuse. P305+P351+P338+P337+P313-IF IN EYES: Rinse cautiously with water for several minutes. Remov contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advi or attention. nent Not applicable Not applicable nation on ingredients Spermidine Phosphate Hexahydrate >98.0%(T) 49721-50-8 256-447-9
Pictograms or hazard symbols Signal word Hazard statements Precautionary statements Precautionary statements PBT: vPvB: SECTION 3: Composition/inform 3.1 Substances Components: Percent: CAS RN:	Warning H315-Causes skin irritation. H319-Causes serious eye irritation. P264-Wash hands and face thoroughly after handling. P280-Wear protective gloves, eye protection. P302+P352+P332+P313+P362+P364-IF ON SKIN: Wash with plenty of water. If skin irritation occur: Get medical advice or attention. Take off contaminated clothing and wash it before reuse. P305+P351+P338+P337+P313-IF IN EYES: Rinse cautiously with water for several minutes. Remov contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advic or attention. nent Not applicable Not applicable nation on ingredients Spermidine Phosphate Hexahydrate >88.0%(T) 49721-50-8 256-447-9 N-(3-Aminopropyl)-1,4-butanediamine Phosphate Hexahydrate ,
Signal word Hazard statements Precautionary statements Precautionary statements 2.3 Other hazards Results of PBT and vPvB assess PBT: vPvB: SECTION 3: Composition/inform 3.1 Substances Components: Percent: CAS RN: EC-No:	Warning H315-Causes skin irritation. H319-Causes serious eye irritation. P264-Wash hands and face thoroughly after handling. P280-Wear protective gloves, eye protection. P302+P352+P332+P313+P362+P364-IF ON SKIN: Wash with plenty of water. If skin irritation occur: Get medical advice or attention. Take off contaminated clothing and wash it before reuse. P305+P351+P338+P337+P313-IF IN EYES: Rinse cautiously with water for several minutes. Remov contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advi or attention. nent Not applicable Not applicable nation on ingredients Spermidine Phosphate Hexahydrate >98.0%(T) 49721-50-8 256-447-9

S0385	Spermidine Phosphate	Page 1 of 5
	Hexahydrate	

SECTION 4: First aid measures	
4.1 Description of first aid measures	
Inhalation:	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical advice/attention if you feel unwell.
Skin contact:	Remove/Take off immediately all contaminated clothing. Gently wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention.
Eye contact:	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
Ingestion:	Get medical advice/attention if you feel unwell. Rinse mouth.
Protection of first-aiders:	A rescuer should wear personal protective equipment, such as rubber gloves and air-tight goggles.

^{4.2} Most important symptoms and effects, both acute and delayed No data available

4.3 Indication of any immediate medical attention and special treatment needed No data available

SECTION 5: Firefighting measures		
5.1 Extinguishing media		
Suitable extinguishing media:	Dry chemical, foam, water spray, carbon dioxide.	
5.2 Special hazards arising from the substance or mixture	Take care as it may decompose upon combustion or in high temperatures to generate poisonous fume. Carbon dioxide, Carbon monoxide, Nitrogen oxides (NOx), Phosphorus oxides	
5.3 Advice for firefighters	Fire-extinguishing work is done from the windward and the suitable fire-extinguishing method according to the surrounding situation is used. Uninvolved persons should evacuate to a safe place. In case of fire in the surroundings: Remove movable containers if safe to do so. When extinguishing fire, be sure to wear personal protective equipment	
SECTION 6: Accidental release mea	asures	
6.1 Personal precautions, protective equipment and emergency procedures	Use personal protective equipment. Keep people away from and upwind of spill/leak. Entry to non-involved personnel should be controlled around the leakage area by roping off, etc	
6.2 Environmental precautions	Prevent product from entering drains	
6.3 Methods and materials for containment and cleaning up	Sweep dust to collect it into an airtight container, taking care not to disperse it. Adhered or collected material should be promptly disposed of, in accordance with appropriate laws and regulations.	
6.4 Reference to other sections	For disposal see section 13.	
SECTION 7: Handling and storage		
7.1 Precautions for safe handling	Handling is performed in a well ventilated place. Wear suitable protective equipment. Prevent dispersion of dust. Wash hands and face thoroughly after handling. Use a local exhaust if dust or aerosol will be generated. Avoid contact with skin, eyes and clothing.	
7.2 Conditions for safe storage, including any incompatibilities	Keep container tightly closed. Store in a cool and dark place. Store under inert gas. Protect from moisture. Store away from incompatible materials such as oxidizing agents. Hygroscopic	
7.3 Specific end use(s)	No further relevant information available.	
SECTION 8: Exposure controls/per	sonal protection	
8.1 Control parameters	No data available	
8.2 Exposure controls	Install a closed system or local exhaust as possible so that workers should not be exposed directly. Also install safety shower and eye bath.	
Respiratory protection: Hand protection: Eye protection: Skin and body protection:	Dust respirator. Follow local and national regulations. Protective gloves. Safety glasses. A face-shield, if the situation requires. Protective clothing. Protective boots, if the situation requires.	

S0385	Spermidine Phosphate	Page 2 of 5
30300		1 dgo 2 01 0
	Hexahydrate	

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and ch	nemical properties
Physical state (20°C):	Solid
Form:	Crystal - Powder
Colour:	White - Almost white
Odour:	No data available
pH:	No data available
Melting point/freezing point:	No data available
Boiling point/range:	No data available
Flash point:	No data available
Evaporation rate(Butyl Acetate=1):	No data available
Flammability(solid, gas):	No data available
Flammability or explosive limits:	
Lower:	No data available
Upper:	No data available
Vapour pressure:	No data available.
Vapour density:	No data available
Relative density:	No data available
Solubility(ies):	
[Water]	No data available
[Other solvents]	No data available
Partition coefficient:	No data available
n-octanol/water:	
Autoignition temperature:	No data available
Decomposition temperature:	No data available
Dynamic Viscosity:	No data available
Kinematic viscosity:	No data available
9.2 Other safety information	No data available

SECTION 10: Stability and reactivity	
10.1 Reactivity	No data available
10.2 Chemical stability	Stable under proper conditions.
10.3 Possibility of hazardous reactions	No special reactivity has been reported.
10.4 Conditions to avoid	No data available
10.5 Incompatible materials	Oxidizing agents

10.6 Hazardous decomposition products Carbon dioxide, Carbon monoxide, Nitrogen oxides (NOx), Phosphorus oxides

SECTION 11: Toxicological information	
11.1 Information on toxicological effects	
Acute Toxicity:	ipr-mus LD50:468 mg/kg ivn-mus LD50:92 mg/kg
Skin corrosion/irritation:	No data available
Serious eye damage/irritation:	No data available
Respiratory or skin sensitization:	No data available
Germ cell mutagenicity:	No data available
Carcinogenicity:	
IARC =	No data available
NTP =	No data available
Reproductive toxicity:	No data available
STOT-single exposure:	No data available
STOT-repeated exposure:	No data available
Aspiration hazard:	No data available
RTECS Number:	EJ7020000

S0385	Spermidine Phosphate	Page 3 of 5
	Hexahydrate	

SECTION 12: Ecological information	tion
12.1 Toxicity	.1011
Fish:	No data available
Crustacea:	No data available
Algae:	No data available
Aigae.	
12.2 Persistence and degradability	No data available
12.3 Bioaccumulative potential	No data available
12.4 Mobility in soil	
Log Pow:	No data available
Soil adsorption (Koc):	No data available
Henry's Law (PaM ³/mol):	No data available
12.5 Results of PBT and vPvB assess	sment
PBT:	Not applicable
vPvB:	Not applicable
12.6 Other adverse effects	No data available
SECTION 13: Disposal considera	tions
13.1 Waste treatment methods	
	nsult your local regional authorities. You may be able to dissolve or mix material with a combustible solven equipped with an afterburner and scrubber system. Observe all federal, state and local regulations when
SECTION 14: Transport informati	ion
14.1 UN number	Not listed
14.2 UN proper shipping name	
ADR/RID	Not listed
ADR/RID IMDG/IMO	Not listed Not listed
IMDG/IMO ICAO/IATA	Not listed
IMDG/IMO ICAO/IATA 14.3 Transport hazard class(es)	Not listed Not listed
IMDG/IMO ICAO/IATA 14.3 Transport hazard class(es) ADR/RID	Not listed Not listed Does not correspond to the classification standard of the United Nations
IMDG/IMO ICAO/IATA 14.3 Transport hazard class(es)	Not listed Not listed
IMDG/IMO ICAO/IATA 14.3 Transport hazard class(es) ADR/RID IMDG/IMO ICAO/IATA	Not listed Not listed Does not correspond to the classification standard of the United Nations Does not correspond to the classification standard of the United Nations
IMDG/IMO ICAO/IATA 14.3 Transport hazard class(es) ADR/RID IMDG/IMO ICAO/IATA 14.4 Packaging group	Not listed Not listed Does not correspond to the classification standard of the United Nations Does not correspond to the classification standard of the United Nations
IMDG/IMO ICAO/IATA 14.3 Transport hazard class(es) ADR/RID IMDG/IMO ICAO/IATA	Not listed Not listed Does not correspond to the classification standard of the United Nations Does not correspond to the classification standard of the United Nations

14.5 Environmental hazards Marine pollutant	-
44.0 Openial processions for year	No data avail

14.6 Special precautions for user No data available

SECTION 15: Regulatory information

 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture Substance of Very High Concern (SVHC) according to the Not listed REACH Regulations (EC) No.1907/2006

_

15.2 Chemical safety assessment

ICAO/IATA

A chemical safety assessment has not been carried out.

SECTION 16: Other information	
Prepared by:	TCI EUROPE N.V.
Issue date:	10/03/2018

This SDS was prepared sincerely on the basis of the information we could obtained, however, any warranty shall not be given regarding the data contained and the assessment of hazards and toxicity. Prior to use, please investigate not only the hazards and toxicity information but also the laws and regulations of the organization, area and country where the products are to be used, which shall be given the first priority. The products are supposed to be used promptly after purchase in consideration of safety. Some new information or amendments may be added afterwards. If the products are to be used far behind the expected time of use or you have any questions, please feel free to contact us. The stated cautions are for normal handling only. In case of special handling, sufficient care should be taken, in addition to the safety measures suitable for the situation. All chemical products should be treated with the recognition of "having unknown hazards and toxicity", which differ greatly depending on the conditions and handling when in use and/or the conditions and duration of storage. The products must be handled only by those who are familiar with specialized knowledge and have experience or under the guidance of those specialists throughout use from opening to storage and disposal. Safe usage conditions shall be set up on each user's own responsibility.

End of Safety Data Sheet