

Telephone: 044 (0) 1494 455 400

CHO-THERM® 1642, Part A

SDS No: PHC-053 EU

SDS Revision Date (dd/mm/yyyy): 28/07/2021

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SAFETY DATA SHEET

This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006, as amended.

SECTION 1. IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND OF THE COMPANY / UNDERTAKING

1.1 Product identifier : CHO-THERM® 1642, Part A

Product Code(s) : 65-00-1642-0000; 65-00-1642-0000-SP/NP; 65-00-1642-0000NP; 69-11-30862-1642

SDS No. : PHC-053 EU

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

: Sealant / Conductive adhesive.

Use pattern: Electronics industry - professional use.

No restrictions on use known.

1.3 Details of the supplier of the safety data sheet:

Parker Hannifin Manufacturing France SAS

ZAC des Epineaux 7 avenue Louis Blériot 95740 Frépillon

France

Email: parker.france@parker.com Website: www.parkerfrance.fr

Telephone : 033 (01) 34 32 39 00

1.4 Emergency Telephone Number

: +1 (352) 323-3500 (INFOTRAC - U.S.)

Poisons Information Centre France + 33 3 83 85 21 92 Germany +49-30-18412-0 Spain +34 917689800 Italy +39 06 49901

1.5 National Contact

: E-mail: chomerics_europe@parker.com

Website: www.chomerics.com

SECTION 2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

paste - white. Mild odour.

Most important hazards:

Occupational exposure to the substance or mixture may cause adverse effects. For further information, please refer to section 11 of the SDS.

The product is not classified as hazardous according to Regulation (EC) No. 1272/2008.

2.2 Label elements

Hazard pictogram(s)



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Parker Hannifin Ltd., Seal Group Chomerics Division Europe Unit 6 Century Point Halifax Road High Wycombe Bucks, HP12 3SL United Kingdom

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None required according to Regulation (EC) No. 1272/2008.

Signal word:

None required according to Regulation (EC) No. 1272/2008.

Hazard statements:

5-10% of the mixture consists of ingredient(s) of unknown toxicity.

Precautionary statements:

None required according to Regulation (EC) No. 1272/2008.

Supplemental Hazard Statements:

EUH210 - Safety data sheet available on request.

2.3 Other hazards

Other hazards which do not result in classification:

When heated above 150°C in air, may release formaldehyde gas. Burning produces obnoxious and toxic fumes. May be mildly irritating to skin, eyes and respiratory system. Inhalation of fumes may result in metal fume fever, a flu-like illness. May cause gastrointestinal irritation.

PBT assessment:

This mixture contains no substance considered to be persistent, bioaccumulating nor toxic (PBT).

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Not applicable

3.2 Mixtures

Chemical nature - Mixture of: Inorganic substances in powdered form; Siloxanes.

The following substances shall be indicated according to legislation:

Substance name	CAS No	EC No.	Reach Registration No.	<u>% Weight</u>	Classification according to Regulation (EC) nr. 1272/2008	<u>SCL,</u> <u>M-factor,</u> <u>ATE</u>
Aluminium oxide	1344-28-1	215-691-6	Not applicable.	60.0 - 90.0	not hazardous. Substances for which there are Member Country workplace exposure limits.	applicable.
Silicic acid, sodium salt, hydrolysis products with chlorotrimethylsilane and dichloroethenylmethyl silane	68584-83-8	271-545-1	Not applicable.	5.0 - 10.0	No information available.	Not applicable.

The following ingredient may be released from the product only when heated above 150°C:



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formaldehyde

^{*}The above CLP Acute toxicity Classifications for the following chemicals are 'Minimum Classifications': formaldehyde.

For the full text of the H phrases not mentioned in this Section or in Section 2, see Section 16.

SECTION 4. FIRST-AID MEASURES

4.1 Description of first aid measures

Ingestion : Do NOT induce vomiting. Rinse mouth. Never give anything by mouth to an

unconscious person. When symptoms persist or in all cases of doubt, seek medical

advice.

Inhalation : If inhaled, move to fresh air. If breathing is difficult, give oxygen by qualified medical

personnel only. If breathing has stopped, give artificial respiration. When symptoms

persist or in all cases of doubt, seek medical advice.

Skin contact: For skin contact, wash with soap and water while removing contaminated clothing.

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

Eye contact : Rinse thoroughly with plenty of water, also under the eyelids. Remove contact lenses,

if present and easy to do. When symptoms persist or in all cases of doubt, seek

medical advice.

4.1.2 Self-protection for the first aider

: None known or reported by the manufacturer.

4.2 Most important symptoms and effects, both acute and delayed

: May be mildly irritating to skin, eyes and respiratory system. Exposure may cause temporary irritation, redness or discomfort. May cause coughing and breathing difficulties. Inhalation of fumes may result in metal fume fever, a flu-like illness. Symptoms of metal fume fever may include fever, fatigue, vomiting, muscle aches and shortness of breath.

Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. When heated above 150°C in air, may release formaldehyde gas. Formaldehyde is an eye and throat irritant and acute toxicant. Formaldehyde may cause sensitisation by skin contact. Formaldehyde may cause mutations to non-reproductive (somatic) cells, based on animal data. Formaldehyde is classified as carcinogenic.

4.3 Indication of any immediate medical attention and special treatment needed

: Provide general supportive measures and treat symptomatically.

SECTION 5. FIRE-FIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media

: Carbon dioxide (CO2); Dry chemical; Alcohol resistant foam

Unsuitable extinguishing media

: Water may cause spattering of hot material and may spread burning.

5.2 Special hazards arising from the substance or mixture



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: Burning produces obnoxious and toxic fumes. The pressure in sealed containers can increase under the influence of heat. In the event of fire the following can be released: Carbon oxides; Metal oxides; formaldehyde; Silica; Silicon oxides

5.3 Advice for firefighters

Protective equipment for fire-fighters

: Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA. Firefighters should wear proper protective equipment and self-contained breathing apparatus with full face piece operated in positive pressure mode.

Special fire-fighting procedures

: Move containers from fire area if safe to do so. Cool closed containers exposed to fire with water spray. Do not allow run-off from fire fighting to enter drains or water courses. Dike for water control.

SECTION 6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

: Keep people away from and upwind of spill/leak. Restrict access to area until completion of clean-up. Wear appropriate protective equipment.

6.2 Environmental precautions

Prevent product from entering drains, sewers, waterways and soil. If necessary, dike well ahead of the spill to prevent runoff into drains, sewers, or any natural waterway or drinking supply.

6.3 Methods and material for containment and cleaning up

: Ventilate the area. Remove all sources of ignition. Prevent further leakage or spillage if safe to do so. Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Pick up and transfer to properly labeled containers. Contact the proper local authorities.

6.4 Reference to other sections

Refer to protective measures listed in sections 7 and 8. Refer to Section 13 for disposal of contaminated material.

SECTION 7. HANDLING AND STORAGE

7.1 Precautions for safe handling

: Use with adequate ventilation. Wear suitable protective equipment during handling. Avoid breathing dust, fume or vapors. Avoid contact with skin, eyes and clothing. Keep away from extreme heat and direct flame. Keep away from incompatibles. Keep containers closed when not in use. Wash thoroughly after handling.

7.2 Conditions for safe storage, including any incompatibilities

: Store in cool/well-ventilated place. Inspect periodically for damage or leaks. Do not store near any incompatible materials (see Section 10).

7.3 Specific end use(s) : Adhesive / Sealant

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control Parameters

Exposure Limits:					
Chemical Name	Exposure Limits	<u>Type</u>	<u>Notes</u>		
Aluminium oxide					
	10 mg/m³ (TWA)	France (OEL)	None.		



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	6 mg/m³ (respirable dust) (TWA)	Hungary (OEL)	None.
	2.5 mg/m³ (inhalable); 1.2 mg/m³ (respirable dust) (TWA)	Poland (OEL)	None.
	10 mg/m³ (TWA)	Spain (OEL)	None.
	10 mg/m³ (inhalable); 4 mg/m³ (respirable dust) (TWA)	The United Kingdom (WELs)	N/Av
formaldehyde			
	0.3 ppm (0.37 mg/m³) (TWA) 1 ppm (1.2 mg/m³) (STEL)	Finland (OEL)	None.
	0.5 ppm (TWA) 1 ppm (STEL)	France (OEL)	None.
	0.3 ppm (0.37 mg/m³) (exposure factor 2) (TWA)	Germany (OEL)	Skin sensitiser Carc. 1B
	0.6 mg/m³ (TWA) 0.6 mg/m³ (STEL)	Hungary (OEL)	Potential for cutaneous absorption
	0.5 mg/m³ (TWA) 1 mg/m³ (STEL)	Poland (OEL)	Skin notation
	0.3 ppm (0.37 mg/m³) (STEL)	Spain (OEL)	None.
	2 ppm (2.5 mg/m³) (TWA) 2 ppm (2.5 mg/m³) (STEL)	The United Kingdom (WELs)	None.

Biological Exposure Indices:

No biological exposure limits noted for the ingredient(s).

Biological Exposure Indices:

No biological exposure limits noted for the ingredient(s).

Derived No Effect Level (DNEL):

No information available.

Predicted No Effect Concentration (PNEC):

No information available.

8.2 Exposure controls

Ventilation and engineering measures

: Ensure adequate ventilation, especially in confined areas. Apply technical measures to comply with the occupational exposure limits. In case of insufficient ventilation wear

suitable respiratory equipment.

Respiratory protection : In case of insufficient ventilation wear suitable respiratory equipment. The filter class

for the respirator must be suitable for the maximum expected contaminant concentration (gas/vapour/aerosol/particulates) that may arise when handling the product. If this concentration is exceeded, self-contained breathing apparatus must be

used. Seek advice from respiratory protection specialists.

Skin protection: For prolonged or repeated contact use protective gloves. The suitability for a specific

workplace should be discussed with the producers of the protective gloves. The selected protective gloves have to satisfy the specifications of EU Directive 89/689/EEC and the standard EN 374 derived from it. Wear sufficient clothing to

prevent skin contact.

Eye / face protection : If product is processed in a manner that generates dusts or fumes, wear as

appropriate: Tightly fitting safety goggles; Safety glasses with side shields See also

EN 166.



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Other protective equipment

: Ensure that eyewash stations and safety showers are close to the workstation location. Other equipment may be required depending on workplace standards.

General hygiene considerations

Avoid breathing dust, fume or vapors. Avoid contact with skin, eyes and clothing. Wash thoroughly after handling. Remove and wash contaminated clothing before re-use. Handle in accordance with good industrial hygiene and safety practice.

8.3 Environmental exposure controls

: Avoid release to the environment.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Physical state : paste - white
Colour : white
Odour : Mild odour.

Odour threshold : No information available. pH : No information available.

Flash point : > 93.3°C
Flashpoint (Method) : closed cup
Lower flammable limit (% by vol.)

No information available.

Upper flammable limit (% by vol.)

: No information available.

Auto-ignition temperature

: No information available.

Decomposition temperature

Melting/Freezing point

: No information available.

Oxidizing properties : None known.

Explosive properties : Not explosive
Initial boiling point and boiling range

No information available.No information available.

Relative density : > 1.0
Solubility in water : Insoluble.

Other solubility(ies): No information available.Vapour pressure: No information available.Vapour density: No information available.

Partition coefficient: n-octanol/water

: No information available.

Viscosity : No information available.

Evaporation rate (BuAe = 1)

: No information available.

Particle characteristics : Not applicable.

9.2 Other Information

Volatiles (% by weight) : Not applicable.



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Volatile organic Compounds (VOC's)

: Not applicable.

Other physical/chemical comments

: No additional information.

SECTION 10. STABILITY AND REACTIVITY

10.1 Reactivity : Not normally reactive.

10.2 Chemical stability : Stable under normal conditions. When heated above 150°C in air, may release

formaldehyde gas.

10.3 Possibility of hazardous reactions

Hazardous polymerization does not occur. No dangerous reaction known under

conditions of normal use.

10.4 Conditions to avoid : Direct sources of heat. Do not use in areas without adequate ventilation. Avoid contact

with incompatible materials.

10.5 Incompatible materials

: Strong oxidizing agents; Strong acids; Strong bases; Metal salts

10.6 Hazardous decomposition products

: None known.

Burning produces obnoxious and toxic fumes. In the event of fire the following can be

released: Carbon oxides; Metal oxides; formaldehyde; Silica; Silicon oxides

SECTION 11. TOXICOLOGICAL INFORMATION

11.1 Information on Toxicological effects:

Acute toxicity : According to the classification criteria of the European Union, this product is not

considered as being an acutely toxic chemical.

Skin corrosion/Irritation: According to the classification criteria of the European Union, this product is not

considered as being a skin corrosive or irritant.

Serious eye damage/irritation

: According to the classification criteria of the European Union, the product is not

considered as being an eye irritant.

Respiratory or skin sensitisation

: Not expected to be a skin or respiratory sensitizer.

Avoid heating, which will result in the liberation of formaldehyde gas. Formaldehyde

may cause sensitisation by skin contact.

Germ cell mutagenicity : Contains no ingredient listed as a mutagen.

Avoid heating, which will result in the liberation of formaldehyde gas. Formaldehyde may cause mutations to non-reproductive (somatic) cells, based on animal data.

Carcinogenicity : Contains no ingredient listed as a carcinogen

Avoid heating, which will result in the liberation of formaldehyde gas. Formaldehyde

has shown limited evidence of a carcinogenic effect. . .

Reproductive toxicity

: Contains no ingredient listed as toxic to reproduction.

STOT-single exposure : Accord

According to the classification criteria of the European Union, this product is not

expected to cause target organ toxicity through a single exposure.

STOT-repeated exposure: According to the classification criteria of the European Union, this product is not

expected to cause target organ toxicity through repeated exposures.

Aspiration hazard : According to the classification criteria of the European Union, this product is not

considered as being an aspiration hazard to humans.



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Routes of exposure Effects of acute exposure:

: Eye contact; Skin contact; Inhalation; Ingestion

Inhalation: Mild respiratory irritant. May cause coughing and breathing difficulties. Inhalation of fumes may result in metal fume fever, a flu-like illness. Symptoms of metal fume fever may include fever, fatigue, vomiting, muscle aches and shortness of breath. Avoid heating, which will result in the liberation of formaldehyde gas.

Formaldehyde causes severe respiratory irritation, lung inflammation and pulmonary

edema.

Skin contact: May cause mild skin irritation. Exposure may cause temporary irritation,

redness or discomfort.

Eye contact: May cause mild eye irritation. Exposure may cause temporary irritation,

redness or discomfort.

Ingestion: Ingestion may cause gastrointestinal irritation, nausea, vomiting and

diarrhea.

Potential Chronic Health Effects

: None known or reported by the manufacturer.

Information on other Hazards

: Avoid heating, which will result in the liberation of formaldehyde gas. Formaldehyde is

an eye and throat irritant and acute toxicant.

11.1.1 Acute Toxicity

Toxicological data

There is no available data for the product itself, only for the ingredients. See below for individual ingredient acute toxicity data.

	LC50(4hr)	LD₅	60
Chemical name	<u>inh, rat</u>	(Oral, rat)	(Rabbit, dermal)
Aluminium oxide	>2.3 mg/L (dust) (no deaths)	> 2000 mg/kg (No mortality)	No information available.
Silicic acid, sodium salt, hydrolysis products with chlorotrimethylsilane and dichloroethenylmethylsilane	No information available.	No information available.	No information available.
he following ingredient	may be released from the pro	oduct only when heated	above 150°C:
formaldehyde	287 ppm	800 mg/kg (rat) The estimated human lethal dose is: 317 - 475 mg/kg	300 mg/kg

SECTION 12. ECOLOGICAL INFORMATION

12.1 Toxicity

: No data is available on the product itself. Should not be released into the environment. See the following tables for individual ingredient ecotoxicity data.



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Ecotoxicity data:

l di	040 N	Toxicity to Fish			
<u>Ingredients</u>	CAS No	LC50 / 96h	NOEC / 21 day	M Factor	
Aluminium oxide	1344-28-1	> 100 mg/L (Brown trout)	No information available.	None.	
Silicic acid, sodium salt, hydrolysis products with chlorotrimethylsilane and dichloroethenylmethylsilane	68584-83-8	N/Av	N/Av	None.	
formaldehyde	50-00-0	6.7 mg/L (Striped bass)	≥ 48 mg/L/28-day (Japanese ricefish)	None.	

<u>Ingredients</u>	CAS No	Toxicity to Daphnia			
		EC50 / 48h	NOEC / 21 day	M Factor	
Aluminium oxide	1344-28-1	> 100 mg/L (Daphnia magna)	No information available.	None.	
Silicic acid, sodium salt, hydrolysis products with chlorotrimethylsilane and dichloroethenylmethylsilane	68584-83-8	N/Av	N/Av	None.	
formaldehyde	50-00-0	5.8 mg/L (Daphnia magna)	No information available.	None.	

<u>Ingredients</u>	CAS No	Toxicity to Algae			
		EC50 / 96h or 72h	NOEC / 96h or 72h	M Factor	
Aluminium oxide	1344-28-1	> 100 mg/L/72hr (Green algae)	No information available.	None.	
Silicic acid, sodium salt, hydrolysis products with chlorotrimethylsilane and dichloroethenylmethylsilane	68584-83-8	N/Av	N/Av	None.	
formaldehyde	50-00-0	14.7 mg/L/24hr (Green algae)	No information available.	None.	

12.2 Persistence and degradability

: The product itself has not been tested.

12.3 Bioaccumulation potential

: The product itself has not been tested. See the following data for ingredient information.

<u>Components</u>	Partition coefficient n-octanol/water (log	Bioconcentration factor (BCF)
	Kow)	

formaldehyde (CAS 50-00-0)

0.35

3

12.4 Mobility in soil : The product itself has not been tested.



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 This mixture contains no substance considered to be persistent, bioaccumulating nor toxic (PBT).

12.6 Endocrine disrupting properties

: None known or reported by the manufacturer.

12.7 Other Adverse Environmental effects

: No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

12.8 Additional information: None known or reported by the manufacturer.

SECTION 13. DISPOSAL CONSIDERATIONS

13.1 Waste Treatment Methods:

Handling for Disposal

: Handle in accordance with good industrial hygiene and safety practice. Refer to protective measures listed in sections 7 and 8.

Methods of Disposal

Empty containers should be taken for local recycling or waste disposal. Dispose of in accordance with the European Directives on waste and hazardous waste. Waste must be classified and labelled prior to recycling or disposal. According to the European Waste Catalogue, Waste Codes are not product specific, but application specific. Waste codes should be assigned by the user based on the application for which the product was used.

SECTION 14. TRANSPORTATION INFORMATION

Regulatory Information	14.1 UN Number	14.2 UN proper shipping name	14.3 Transport hazard class(es)	14.4 Packing Group	Label
ADR/RID	None.	not regulated	not regulated	none	\bigotimes
ADR/RID Additional information	Not classified a road and rail.	as dangerous for conveyance in the meaning of the regulati	ions for the trar	sport of da	ngerous goods by
ICAO/IATA	None.	Not regulated.	not regulated	none	
ICAO/IATA Additional information	None.	!	ļ	ļ	
IMDG	None.	Not regulated.	not regulated	none	\otimes
IMDG Additional information	None.	!	!	!	

14.5 Environmental hazards

This product does not meet the criteria for an environmentally hazardous mixture, according to the IMDG Code. See Section 12 for more environmental information.

14.6 Special precautions for user

: Appropriate advice on safety must accompany the package.



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14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

: Not applicable.

SECTION 15. REGULATORY INFORMATION

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

: Classification according to Regulation (EC) No. 1272/2008 on the classification of hazardous mixtures.

Authorisations

Regulation (EC) No. 1907/2006, REACH Annex XIV Substances subject to authorisation, as amended:

None of the components are specifically listed.

Restrictions on use

Regulation (EC) No. 1907/2006, REACH Annex XVII Substances subject to restriction on marketing and use, as amended:

None of the components are specifically listed.

Directive 96/82/EC (Seveso II) on the control of major-accident hazards involving dangerous substances:

None of the components are specifically listed.

Directive 98/24/EC on the protection of the health and safety of workers from risks related to chemical agents at work:

None of the components are specifically listed.

Directive 94/33/EC on the protection of young people at work:

None of the components are specifically listed.

This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006, as amended [including Regulation (EU) 2015/830].

Follow national regulation for work with chemical agents.

German legislation on water endangering substances VwVwS: Water contaminating class (Germany) - No information available.

15.2 Chemical safety assessment

: A chemical safety assessment has not been carried out by the Manufacturer of this product.



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SECTION 16. OTHER INFORMATION

Legend

ADR: European Agreement concerning the International Carriage of Dangerous Goods

by Road

CAS: Chemical Abstract Services

CLP: Regulation (EC) No 1272/2008 on classification, labelling and packaging of

substances and mixtures EC: European Community

EC50: Effective Concentration 50% ECHA: European Chemicals Agency EEC: European Economic Community

EN: European Standard EU: European Union

HSDB: Hazardous Substances Data Bank IATA: International Air Transport Association

IBC: Intermediate Bulk Container

IMDG: International Maritime Dangerous Goods

LC: Lethal Concentration

LD: Lethal Dose

NOEC: No observable effect concentration

OECD: Organisation for Economic Co-operation and Development

OEL: National occupational exposure limits

PEL: Permissible exposure limit

RID: Regulations concerning the International Carriage of Dangerous Goods by Rail

RTECS: Registry of Toxic Effects of Chemical Substances

SDS: Safety Data Sheet

STEL: Short Term Exposure Limit TWA: Time Weighted Average WEL: Workplace Exposure Limit

Information Source : 1. Material Safety Data Sheet from manufacturer.

2. Canadian Centre for Occupational Health and Safety, CCInfoWeb Databases, 2019

(Chempendium, RTECs, HSDB, INCHEM).

3. European Chemicals Agency, Classification Legislation, 2019.

4. OECD - The Global Portal to Information on Chemical Substances - eChemPortal,

2019.

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: 27/11/2017

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Revision Information: Minor formatting change.

Regulation and Procedure



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Not applicable.

H-phrases (full-text)

H301 - Toxic if swallowed.

H311 - Toxic in contact with skin.

H314 - Causes severe skin burns and eye damage.

H317 - May cause an allergic skin reaction.

H331 - Toxic if inhaled.

H341 - Suspected of causing genetic defects <state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard>.

H350 - May cause cancer <state route of exposure if it is conclusively proven that

no other routes of exposure cause the hazard>.

Other special considerations for handling

: Provide adequate information, instruction and training for operators.

Prepared for:

Parker Hannifin Corp.
77 Dragon Court
Woburn, MA, USA 01888
Telephone: 001-781-935-4850
http://www.parker.com
Direct all enquiries to Parker Hannifin.



Prepared by:

ICC The Compliance Center Inc. http://www.thecompliancecenter.com



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