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SAFETY DATA SHEET

Product : 174 PTFE & Graphite

Date Prepared : May 5th, 2017

Section 1 - Product and Company Identification

Product Name/Identifier : 174 PTFE & Graphite
Other name / Synonym :
Company Information : Robco Inc.
Address : 7200 St.Patrick, LaSalle QC Canada H8N 2W7
Telephone : 514-367-2252
Email : info@robco.com
Website : www.robco.com

Section 2 - Hazards identification

CLASSIFICATION OF THE PRODUCT

Product is not classified as dangerous according to guideline 199/45/EG or regulation EC/1272/2008

LABELS ELEMENTS

Labelling according to EC/1272/2008 (substances) and 1999/45/EC (preparations)

GENERAL INFORMATION

Low risk: Product can only form ignitable mixtures or burn if it is heated or exposed to open flame at temperatures above the flash point.

OVERHEATING

Incorrect processing of PTFE above 325°C (620°F) can lead to the formation of low molecular decomposition products. It is therefore important to prevent overheating of molten material (see section 10)

FIRE HAZARD

Toxic gases are produced during burning (see section 10)

SPARKING

No risk of electrostatic charging

DANGER OF SLIPPING

Films or PTFE waste lying on the floor can cause a danger of slipping.

Section 3 - Composition/information on ingredients

CHEMICAL CHARACTERIZATION

Flexible laminate of following composition:

Laminate	Remarks	CAS-No	Amount	Classification according EC/1272/2008	
				Hazard classes/categories	Hazard Statement
PFTE		9002-84-0		---	---

FORM : Solid, flexible

COLOUR : Braided, grey coloured

ODOUR : No significant smell

HAZARDOUS INGREDIENTS : None

Section 4 - First aid measures**INHALATION**

Inhalation of fumes if product exposed to extreme temperatures: Remove patient from exposure, keep warm and at rest. Use suitable respiratory protection measures. If breathing is irregular or if it has stopped, proceed with artificial respiration. Obtain medical attention.

EYE CONTACT

This product is an inert solid. In case particles come into the eye, remove by irrigating with eye wash solution or clean water, holding the eyelids apart. Obtain medical attention.

SKIN CONTACT

With hot product: Cool the affected areas with plenty of cold water. Cover with a clean cloth or sterile gauze and call for medical help. Do not try to remove the product from the skin or remove soiled clothing as this may cause the injured skin tissue to be torn off.

INGESTION

First aid is normally not necessary.

MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED

None known

INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED

in case of unconsciousness: emergency call

Section 5 - Firefighting measures**EXTINGUISHING MEDIA**

Water
Foam
Dry powder
Carbon dioxide

SPECIAL HAZARDS ARISING FROM THE PRODUCT

Combustion or thermal decomposition will involve toxic and corrosive vapours:

Carbon monoxide (CO)
Hydrogenfluorid
Carbonyl fluoride
Tetrafluoroethylene
Hexafluoropropylene
Perfluoroisobutene

ADVICE FOR FIREFIGHTERS

In the presence of combustion or carbonisation gases, any fire fighting, rescue and clearing up activities should be undertaken only with heavy-duty respiratory and eye protection equipment (see also sections 3,8 and 10).

Section 6 - Accidental release measures**PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES**

No special measures required
Seek expert advice when disposing of collected material.

Caution when running over films on the floor. Danger of slipping.

ENVIRONMENTAL PRECAUTIONS

Observe to the legal requirements for waste disposal

METHODS AND MATERIAL FOR CONTAINMENT AND CLEANING UP

Collect the product in suitable containers and either recycle or dispose of.

REFERENCE TO OTHER SECTIONS

see also section 3, 8, 10

Section 7 - Handling and storage**PRECAUTIONS FOR SAFE HANDLING**

General Hygienic Measures

CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES**TECHNICAL MEASURES AND STORAGE CONDITIONS**

RISK OF ELECTROSTATIC CHARGING : Taking measures against

HANDLING : Avoid contact with naked flames and hot surfaces as irritant and toxic decomposition products can be formed.

SAFE STORAGE: Storage on pallets in dry, enclosed rooms with solid foundation.

Stack products in cardboard boxes up to a maximum height of

FURTHER INFORMATION ON STORAGE CONDITIONS

STORAGE TEMPERATURE : Ambient temperature

STORAGE AND TRANSPORT PRESSURE : Atmospheric

SPECIFIC END USES

TRANSPORT TEMPERATURE : Ambient temperature, no special requirement for cold weather

LOADING AND UNLOADING TEMPERATURE : Ambient temperature

NORMAL FORM OF TRANSPORTATION : Pallets or goods wagons

Section 8 - Exposure controls/personal protection**EXPOSURE CONTROLS**

None

PERSONAL PROTECTION EQUIPMENT :

Wear glove during manipulation materials lubricated with PTFE dispersion (not sintered). If contact with hot material is possible, wear heat proof cloves, arm and face shields.

HYGIENE MEASURES :

With sufficient ventilation on the working area and correct handling and processing no health risks are to be expected.

Section 9 - Physical and chemical properties**INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES**

These are just recommended reference values. Please take the technical product specification into consideration

PROPERTY	TEST CONDITIONS	VALUES	UNIT	REMARKS
Form		solid		
Colour		Braided, grey coloured		
Odeur		no significant smell		
pH	20°C	not applicable		
Melting/freezing point		+327 / -260	°C	
Boiling point / range		not applicable		
Flash point		not applicable	°C	
Evaporation rate		not applicable		
Ignition point		not applicable	cC	
Explosion limit (lower/upper)		not applicable		
Vapour pressure		not applicable		
Density		1,6	g/cm _s	
Water solubility		insoluble		
Partition coefficient (n-Octanol / Water)		not applicable		
Self ignition temperature		not applicable	°C	
decomposition temperature		not applicable	°C	
Viscosity		not applicable		
Explosive characteristics		not applicable		
Oxidising characteristics		not applicable		

OTHER INFORMATIONS

PROPERTY	TEST CONDITIONS	VALUES	UNIT	REMARKS
hygroscopic characteristics		no		
molecular weight		3.000 - 50.000		polymer

Section 10 - Stability and reactivity**REACTIVITY**

Product is not reactive under normal condition.

CHEMICAL STABILITY

Stable under normal conditions

POSSIBILITY OF HAZARDOUS REACTIONS

No hazardous reaction are expected

CONDITION TO AVOID

Temperatures above 300°C

INCOMPATIBLE MATERIALS

Do not bring into contact with: molten alkali metals, halogen compounds over 370°C

HAZARDOUS DECOMPOSITION PRODUCTS

Thermal decomposition products are toxic and corrosive:

carbon monoxide

Hydrogen fluoride

Carbonyl fluoride

Tetrafluoroethylene

Hexafluoropropylene

Perfluoroisobutene

Reduced oxygen supply can cause the development of carbon monoxide and irritant smoke.

Section 11 - Toxicological Information**INFORMATION ON TOXICOLOGICAL EFFECTS**

According to present experience, the material is physiologically compatible. According to present experience, the material is neither mutagenic, cancerogenic nor teratogenic.

a. Acute toxicity :

The LD50 (oral, rat) was estimated to be 5 g/kg. This is a very low toxicity.

b. skin irritation :

None

c. Irritation/damage to eyes :

Particle can damage the conjunctiva and cause irritation.

d. Sensitisation of the respiratory / skin :

Low health risk under normal conditions.

Contact with hot product may cause thermal burns.

e. Acterial count – mutagenicity :

not tested

f. Carcinogenity :

Not tested

g. Reproductive toxicity :

Not tested

h. Specific toxicity by one way exposure

because of the reaction inertness in a single exposure no toxic effect will be expected.

i. Specific toxicity by repeated exposure :

long or frequent skin contact causes no extraordinary cutaneous reaction.

effects from exposure to dusts or fumes over long periods have not been studied.

j. Hazard of aspiration :

low health risk under normal conditions.

fumes and/or aerosols can be generated at high temperatures, which can irritate eyes and air-passages.

Section 12 - Ecological information**TOXICITY**

No data available

PERSISTENCE AND DEGRADABILITY

Product is insoluble in water and not biodegradable

BIOACCUMULATIVE POTENTIAL

No data available

MOBILITY IN SOIL

No data available

RESULTS OF PBT AND vPvB ASSESSEMENT

see point 2

OTHER ADVERSE EFFECTS

see point 2

GENERAL INFORMATION:

The material has no harmful effect on the environment

WATER HAZARD CLASS: o (self estimation)

Oxygen required lies under the detection limit of 50 mg/l.

Section 13 - Disposal considerations**WASTE TREATMENT METHODS**

PRODUCT : In accordance with the necessary technical and local regulations may be dumped with household waste without harmful effects to the environment.

RECYCLING : Recycling is not possible, except for larger, virgin grade sheet material.

Section 14 - Transport information**UN-NUMBER**

GGVS I GGVE : non-hazardous material

ADR I RID : non-hazardous material

TRANSPORT HAZARD CLASS(ES)

None

ENVIRONMENTAL HAZARDS

GGVS/GGVE : non-hazardous material

ADR I RID : non-hazardous material

ICAO-TI I IATA-DGR : non-hazardous material

ADN/ADNR : non-hazardous material

SPECIAL PRECAUTIONS FOR USER

see section 6 - 8

TRANSPORT IN BULK ACCORDING TO ANNEX II OF MARPOL73/78 AND THE IBC CODE

Shipment and delivery only by legal and proper packing

Proper shipping name : not classified

Section 15 - Regulatory information**SAFETY, HEALTH AND ENVIRONMENTAL REGULATIONS I LEGISLATION SPECIFIC FOR THE PRODUCT****EC-REGULATIONS**

Regulation (EC) Nr. 2037/2000 (Substances leading to decomposition of Ozone)

Regulation (EC) Nr. 850/2004 (Persistent organic substances)

Regulation (EC) Nr. 689/2008 (export and import of hazardous chemicals)

CHEMICAL SAFETY ASSESSMENT

WATER HAZARD CLASS (WHC) : 0

OTHER REGULATIONS : not applicable

Section 16 - Other information

Changes of this version

Disclaimer :

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as guidance for safe handling, use, storage, transportation and release and is not considered a warranty or quality specification. The responsibility for the compliance with existing law and regulations lies with the receiver of the product.