MATERIAL SAFETY DATA SHEET

Name: 90° KOMATSU YELLOW - 2K
EPOXY POLYESTER ENAMEL

SECTION 1 - PRODUCT IDENTIFICATION & COMPANY INFORMATION

MSDS Number	551563
Product Name	90° KOMATSU YELLOW - 2K EPOXY POLYESTER ENAMEL
Trade Mark	CHEMISOLID
Company identification	SICO INC. 2505 De la Metropole Longueuil QC J4G 1E5 CANADA
Contact	Service au client/Customer Service/Servicio con cliente
Telephone	450 442-7999 (8:00-17:00)
Fax number	450 646-7699
Prepared by	Regulatory Department
Regulatory telephone	(514) 495-5710 (8:00-17:00)
Emergency contact	CANUTEC
Emergency telephone	613 996-6666 (24H)
Type of product	SOLVENT-BASED EPOXY COATING

SECTION 2 - COMPOSITION AND INFORMATION ON HAZARDOUS INGREDIENTS

Ingredient Name	CAS #	Concentration (w/w)
EPOXIDIZED LINSEED OIL	8016-11-3	30-60%
METHYL n-AMYL KETONE	110-43-0	10-30%
TITANIUM DIOXIDE (pig white 6)	13463-67-7	5-10%
BENZIMIDAZOLONE (pig yellow 151)	61036-28-0	1-5%
ZINC OXIDE (as ZINC COMPOUND)	1314-13-2	1-5%
ALUMINUM SILICATE HYDRATED (pig white 19)	1332-58-7	1-5%
n-BUTYL ACETATE	123-86-4	1-5%
CALCIUM METASILICATE	13983-17-0	1-5%

SECTION 3 - HAZARDS IDENTIFICATION

EYE CONTACT

The material is slightly irritating.

The effects are usually reversible.

SKIN CONTACT

The material is moderately irritating. Repeated or prolonged contact increases the irritation.

INHALATION HAZARDS

Moderately irritating for the nose, throat, upper respiratory track and lungs.

An exposure to the vapors of spray mist can give headaches, affect the central nervous system and cause dizziness, nauseas and narcotic effects.

INGESTION HAZARDS

Do not swallow.

May cause respiratory problems.

May cause nausea, vomiting, diarrhea, gastro-intestinal irritation and ulceration.

May cause burns to the mouth, throat and oesophagus.

An aspiration of the vomits into the lungs may cause inflammation (chemical pneumotitis, bronchopneumonia or pulmonary oedema).

TARGET ORGANS

Central nervous system.

Liver.

SECTION 4 - FIRST AID MEASURES

EYE CONTACT

Immediately flush eyes with lukewarm water for at least 15 minutes, holding the eyelids opened.

SKIN CONTACT

Wash the skin thoroughly with plenty of lukewarm water using a mild and non-abrasive soap.

Do not use cold water; it enhances the irritation by closing the skin pores.

Remove contaminated clothes and wash them before reuse.

If the irritation persists, repeat the washing procedure.

INHALATION

Remove the victim to fresh air.

If breathing has stopped, give artificial respiration.

If breathing is difficult, oxygen should be administered.

INGESTION

Never give anything by mouth if the victim is semi, unconscious or convulsing.

Do not induce vomiting unless directed to do so by medical personnel.

Dilute by giving 2 glasses of water or milk.

Have the victim lean forward to reduce the risk of aspiration of the vomits into the lungs.

Keep the victim warm and quiet.

SECTION 5 - FIRE FIGHTING MEASURES

Flash point:	48.9 °C (120 °F) Tag Closed Cup
Lower flam. limit (%):	1
Upper flammable limit (%):	13.8
Auto Ignition Point:	393 °C (739.4 °F)

FLAMMABLE PROPERTIES

Vapors may form, with air, an explosive mixture between lower and upper flammable limits.

Closed containers of this material may build up pressure if exposed to intense heat and may explode. .

HAZARDOUS COMBUSTION PRODUCTS

Carbon monoxide

Carbon dioxide

Aldehydes

Inorganics acids

Other unidentified compounds.

EXTINGUISHING MEDIA

Chemical foam

Carbon dioxide (CO2)

Dry chemical

Fine spray or drizzle of water.

CAUTION: Water in a jet may disperse fire.

FIRE FIGHTING INSTRUCTIONS

Wear a self-sufficient breathing apparatus.

Wear protective clothes.

When the fire is under control, use fine spray or drizzle of water only to cool down the containers.

Treat as a highly flammable liquid.

Closed containers may explode when exposed to an extreme heat.

Evacuate all persons from the fire area to a safe location. If fire is small, uses an extinguisher and ensures you an exit. If fire grows bigger quickly, leave immediately.

SECTION 6 - MEASURES FOR ACCIDENTAL SPILL OR RELEASE

CONTAINMENT

This material is a water-pollutant and soil contaminant.

Prevent this product or the wash waters from entering the water system or sewers.

CLEAN-UP

Remove all sources of ignition.

Ventilate the area.

Wear a self-contained breathing apparatus.

Absorb the spill by using an inert material (sand, earth, vermiculite).

Transfer the absorbed material into a waste container.

Handle as a highly flammable liquid.

Flush the area with plenty of water.

REPORTING

For Canadian, report to the applicable Provincial Environment Ministry.

US regulations require reporting spills of this material that could reach any surface waters.

EVACUATION

Evacuate all personnel not related to emergency procedures.

SECTION 7 - HANDLING AND STORAGE

HANDLING

Avoid breathing the vapors or spray mist.

Avoid contact with eyes.

Avoid repeated or prolonged contact with the skin.

Always ground the containers when transferring.

STORAGE

Keep the storage area clean, separated from crowded areas and cafeterias.

Keep away from direct sunlight, high heat, incompatible materials and sources of ignition.

Keep the containers tightly closed.

This material is highly volatile and flammable.

SECTION 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

CAS #	Authority	Type	Dose
110-43-0	ACGIH	TLV	50 PPM
	OSHA	PEL	100 PPM
13463-67-7	ACGIH	TLV	10 mg/M3
	OSHA	PEL	15 mg/M3
1314-13-2	ACGIH	STEL	10 mg/M3

	ACGIH	TLV	5 mg/M3
	OSHA	PEL	5 mg/M3
	OSHA	STEL	10 mg/M3
1332-58-7	ACGIH	TLV	5 mg/M3
	OSHA	PEL	10 mg/M3
123-86-4	ACGIH	STEL	200 PPM
	ACGIH	TLV	150 PPM
	ACGIH	TLV-C	2000 PPM
	OSHA	PEL	150 PPM
	OSHA	STEL	200 PPM
13983-17-0	ACGIH	TLV	3 mg/M3

ENGINEERING CONTROLS

Keep away from food, drinks and tobacco.

Provide sufficient ventilation to maintain the exposure levels below the limits.

Use local exhaust ventilation systems.

The exhaust air should be filtered to protect the environment.

The equipment must be corrosive resistant.

The equipment and the containers must be grounded at all times to prevent static charge build up.

Eye bath and safety showers must be available wherever this material is used.

RESPIRATORS

Avoid breathing vapors or spray mist.

Use a NIOSH approved air-inducted respirator when the exposure levels are exceeded.

A NIOSH approved air-purifying respirator with the appropriate chemical cartridge may also reduce exposure, however protection provided by air purigying respirators is limited. Determine the proper level of protection by conducting appropriate air-monitoring.

For a short period of use, wear a charcoal filter canister mask with a particle filter.

OTHER CLOTHING

Wear protective clothes: overall with long sleeves, chemical-resistant gloves, apron and impervious boots (neoprene or butyl rubber).
Wear chemical-resistant anti-splashes safety goggles with side pieces or chemical-resistant faceshield.
DO NOT WEAR contact lenses when working with paints and paint related materials..

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Form:	Liquid.
Color:	Colored.
Odor:	Solvents.
Odor threshold (ppm):	Not available
Partition coef. oil/ water:	Not available
pH:	Not applicable
Freezing Point:	-35.5 °C (-31.9 °F)
Boiling temperature:	151.5 °C (304.7 °F)
Evaporation rate:	Slower than n-Butyl Acetate
Vapor pressure at 20°C:	50 mm Hg < vapour pressure < 100 mm Hg
Vapor Density:	Heavier than air
Volatiles by weight (%):	26.32
Volatiles by Volume (%):	36.9
Specific gravity (kg/L):	1.169
Weight per US gal. (lbs/gal.):	9.73
Coating VOC (g/L):	307.6
Coating VOC (lbs/gal US):	2.56
% HAPS by weight:	0
% VHAPS by weight:	0

SECTION 10 - STABILITY AND REACTIVITY

CONDITIONS TO AVOID

Sparks

Flame

High heat

SENSIBILITY TO STATIC DISCHARGE

Yes

SENSITIVITY TO MECANICAL SHOCK

Yes

INCOMPATIBILITY WITH OTHER MATERIALS

Acid

Strong oxidizing material

HAZARDOUS DECOMPOSITION PRODUCTS

Not available

SECTION 11 - TOXICOLOGICAL INFORMATION

CAS #	Exposure	Route	Species	Dose
110-43-0	LD50	Oral	Rat, adult	1670 mg/kg
	LD50	Skin	Rabbit, adult	12600 mg/kg
	LC50	Inhalation	Rat, adult	2000 PPM
	LCLo	Inhalation	Rat, adult	4000 PPM
13463-67-7	LD50	Oral	Rat, adult	24000 mg/kg
	LD50	Skin	Rabbit, adult	10000 mg/kg
61036-28-0	LD50	Oral	Rat, adult	2000 mg/M3
1314-13-2	LD50	Oral	Mouse	7950 mg/kg
	LDLo	Oral	Human	500 mg/kg
	TDLo	Oral	Rat, adult	6846 mg/kg
	TCLo	Inhalation	Human	600 mg/M3
1332-58-7	TDLo	Oral	Rat, adult	590 mg/kg
123-86-4	LD50	Oral	Rat, adult	10768 mg/kg
	LD50	Skin	Rabbit, adult	17600 mg/kg
	LC50	Inhalation	Rat, adult	2000 PPM

CARCINOGENICS EFFECTS

The titanium dioxide CAS # 13463-67-7 is possible human carcinogen (groupe 2B) according to the IARC.

MUTAGENIC EFFECTS

No recorded data was found.

TERATOGENIC EFFECTS

No recorded data was found.

DEVELOPMENTAL EFFECTS

No recorded data was found.

CHRONIC EFFECTS

No recorded data was found.

SECTION 12 - ECOLOGICAL INFORMATION

SECTION 13 - DISPOSAL CONSIDERATIONS

Dispose in accordance with applicable Federal, Provincial, state and municipal regulations.

SECTION 14 - TRANSPORT INFORMATION

TDG UN Number	1263
TDG Class	3
TDG Packing group	III
IMDG UN Number	1263
IATA UN Number	1263
Shipping name	PAINTS

Note: For containers of 5 Litres or less, EXEMPTED from Transport of Dangerour Goods by road according to exemption of article 1.17 (Limited Quantity).

SECTION 15 - REGULATORY INFORMATION

HMIS Health Code	2 - Moderate Hazard
HMIS Fire Code	2 - Moderate Hazard
HMIS Reactivity Code	1 - Slight Hazard
HMIS Personal Protection	H: splash goggles, gloves, synthetic apron and a vapor respirator.

WHMIS CLASS

D2B - Toxic materials causing other toxic effects

D2A - Very toxic materials causing other toxic effects

B3 - Combustible liquids

WHMIS FORMAT

CANADIAN WHMIS: This MSDS has been prepared in compliance with Controlled Product Regulations except for the use of 16 headings instead of 9.

SECTION 16 - OTHER INFORMATION

The manufacturer hereby declares that the information disclosed herein have been based on our raw material suppliers' data, information and notification. Such raw materials are being used as components in the manufacturing of the product. The manufacturer has no control over the nature and content of such information. The manufacturer fully reproduces all the information it holds on the constituent of the product, at the time it is manufactured. The manufacturer does not assume any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. By this data sheet, the manufacturer hereby discloses all the potential dangers it has knowledge of and which might be related to the using or manipulation of the product in order to allow the proper care to be brought and use with regard to the product. Materials used may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards which exist and notification is hereby given to the user. The product must be handled with care and it is recommended to use all the required measures in order to ensure the protection and safety of any person using or handling the product. Notice is hereby given that

injury can derive therefrom if the foregoing is not respected. The manufacturer assumes no responsibility for personal and/or material damage, lost or injury of whichever nature caused or which may occur following the wrongful, inappropriate, negligent or abusive use or handling of the product or from not having read the herein contained information.