MATERIAL SAFETY DATA SHEET
conforming to 91/155/EEC

79375 Regalrez® Picture Varnish

Date: 01.08.2008

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY

Product Information:
Product Name: Regalrez® Picture Varnish
Article No.: 79375
Application: Artists' and Restauration Material

Company: Kremer Pigmente GmbH & Co. KG
Hauptstrasse 41-47, D - 88317 Aichstetten
Tel. +49 7565 91120 Fax. +49 7565 1606
www.kremer-pigmente.de, kremer-pigmente@t-online.de

2. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Composition: Hydrogenated hydrocarbon resin (Regalrez® 1094) dissolved in Kraton® G 1650, Tinuvin® 292, Shellsol® D 40 and Xylene.

Components	*Conc.*	*CAS No.*	*Symbols*	*Risk Phrases*
Hydrogenated hydrogen resin *(Regalrez® 1094)*	10 %	68441-37-2	-	-
Styrene-Ethylene/Butylene-Styrene Block Copolymer *(Kraton® G 1650)*	0.2 %	66070-58-4	-	-
Bis(1,2,2,6,6-Pentamethyl-4-piperidyl) sebacat / methyl(1, 2,2,6,6-pentamethyl-4-piperidyl)sebacat) *(Tinuvin® 292)*	0.2 %	-	Xi, N	R43, 50/53
Aliphatic hydrocarbon *(Shellsol® D 40)*	79.7 %	64742-48-9	Xn	R10, 65, 66
Xylene	10 %	1330-20-7	Xn	R10, 20/21, 38

3. HAZARDS IDENTIFICATION

Hazards designation:

Xn Harmful

Risk Phrases:
R 10: Flammable
R 65: Harmful: may cause lung damage when swallowed.
R 66: Repeated contact can cause dry or chapped skin.

4. FIRST AID MEASURES

Signs and symptoms: Headache, dizziness, nausea, unconsciousness, dry skin. Skin contact may cause irritation.

After inhalation:	Remove to fresh air. If rapid recovery does not occur, transport to nearest medical facility for additional treatment.
After skin contact:	Remove contaminated clothing. Wash off immediately with plenty of water and soap.
After eye contact:	Rinse open eye for several minutes under running water. Consult physician in case of symptoms.
After ingestion:	Do not induce vomiting: seek medical advice/help immediately.
Advice to Physician:	Causes central nervous system depression. Dermatitis may result from prolonged or repeated exposure. Potential for chemical pneumonitis. Consider: gastric lavage with protected airway, administration of activated charcoal.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media:	Foam, water spray or fog. Dry chemical powder, carbon dioxide, sand or earth may be used for small fires only. Do not discharge extinguishing waters into the aquatic environment.
Unsuitable extinguishing media:	Direct water jet.
Protective equipment:	Wear full protective clothing and self-contained breathing apparatus.
Additional advice:	Keep adjacent containers cool by spraying with water.
Specific hazards:	Carbon monoxide may be evolved if incomplete combustion occurs. Will float and can be reignited on surface water. The vapour is heavier than air, spreads along the ground and distant ignition is possible.

6. ACCIDENTAL RELEASE MEASURES

Personal protective measures:	Avoid contact with eyes and skin. Immediately remove all contaminated clothing. Keep unauthorized persons away. Wear appropriate protective equipment. Shut off leaks, if possible without personal risks. Remove all possible sources of ignition. Do not breathe fumes/vapor. Attempt to disperse the vapour or to direct its flow to a safe location for example by using fog sprays. Take precautionary measure against static discharge. Ensure electrical continuity by bonding and grounding (earthing) all equipment. Monitor area with combustible gas indicator.
Environmental protection:	Use appropriate containment to avoid environmental contamination. Prevent from spreading or entering drains, ditches or rivers.
Methods of cleaning/ absorption:	Contain spills with inert material (sand, earth) or by using appropriate barriers. For small liquid spills (< 1 drum), transfer by mechanical means to a labeled, sealable container for product recovery or safe disposal. Allow residues to evaporate or soak up with an appropriate absorbent material and dispose of safely. Remove contaminated soil and dispose of safely.

	For large liquid spills (> 1 drum), transfer by mechanical means such as a vacuum truck to a salvage truck for recovery or safe disposal. Do not flush away residues with water. Retain as contaminated waste. Allow residues to evaporate or soak up with an appropriate absorbent material and dispose of safely. Remove contaminated soil and dispose of safely.
Additional advice:	See Chapter 13 for information on disposal. Notify authorities if any exposure to the general public or the environment occurs or is likely to occur. Vapour may form an explosive mixture with air.

7. HANDLING AND STORAGE

Handling:

Instructions on safe handling:	Avoid breathing of or contact with material. Provide good ventilation.
Information on fire and explosion protection:	Extinguish any naked flames. Keep away from sources of ignition. No not smoke. Take precautionary measures against static discharges. Ensure electrical continuity by bonding and grounding (earthing) all equipment.

Storage:

Storage conditions:	Must be stored in a diked (bunded) well-ventilated area, away from sunlight, ignition sources and other sources of heat. Keep away from aerosols, flammables, oxidizing agents, corrosives and from other flammable products which are not harmful or toxic to man or to the environment.
Storage temperature:	Ambient. Maximum storage time: 6 months.
Product transfer:	Keep containers closed when not in use. Do not use compressed air for filling, discharging or handling.
Recommended materials:	For containers, or container linings use mild steel, stainless steel. For container paints, epoxy paint, zinc silicate paint.
Unsuitable materials:	Avoid prolonged contact with natural, butyl or nitrile rubbers.
Container advice:	Containers, even those that have been emptied, can contain explosive vapours. Do not cut, drill, grind, weld or perform similar operations on or near containers.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering controls: Normal industrial hygiene measures should be sufficient. The conditions of use of this resin should be examined to try to reduce fumes and dusting.

Components with workplace control parameters:
In the absence of occupational exposure standards for this product, it is recommended that the following are adopted:

64742-48-9 Naphtha (petroleum), hydrotreated heavy:
MAK (TRGS 900/901): 1000 mg/m^3, 200 ppm (Group 1)

1330-20-7 Xylene:

MAK (D)	440 mg/m^3, 100 ml/m^3 (vgl. Abschn. XII)
MAK (TRGS 900) (D)	440 mg/m^3, 100 ml/m^3 (DFG, H)
IOELV (EU):	Short term value: 442 mg/m^3, 100 ml/m^3 Long term value: 221 mg/m^3, 50 ml/m^3 Skin

100-41-4 Ethyl benzole

AGW (D)	440 mg/m^3, 100 ml/m^3 (2(1); EU, H)
IOELV (EU):	Short term value: 884 mg/m^3, 200 ml/m^3 Long term value: 221 mg/m^3, 100 ml/m^3 Skin

71-43-2 Benzole

MAK (TRGS 900) (D)	3.25 mg/m^3, 1 ml/m^3 (H, TRK; TRGS 901-15)
TRK (TRGS 900) (D):	3.2 mg/m^3, 1 ml/m^3

Exposure controls: The level of protection and types of controls necessary will vary depending upon potential exposure conditions. Select controls base on a risk assessment of local circumstances. Appropriate measures include: Adequate explosion-proof ventilation to control airborne concentrations below the exposure guidelines/limits. Eye washes and showers for emergency use.

Monitoring methods: Monitoring of the concentration of substances in the breathing zone of workers or in the general workplace may be required to confirm compliance with an OEL and adequacy of exposure controls. For some substances biological monitoring may also be appropriate. Examples of sources of recommended air monitoring methods are given below or contact supplier. Further national methods may be available. National Institute of Occupational Safety and Health (NIOSH), USA: Manual of analytical Methods http://www.cdc.gov/ niosh/nmam/nmammenu.html Occupational Safety and Health Administration (OSHA); USA: Sampling and Analytical Methods http://www.osha-sic.gov /dts/sltc/methods/toc.html Health and Safety Executive (HSE); UK: Methods for the Determination of Hazardous Substances http://www.hsl.gov.uk/search.htm; Germany: Berufsgenossenschaftliches Institut für Arbeitsicherheit (BIA) hppt://www.hvbg.de/d/bia/pub/grl/grle.htm; France: L´Institut National de Recherche et de Securité (INRS) http://www.inrs.fr/ indexnosdoss.html

Personal protective equipment:

Respiratory protection: If engineering controls do not maintain airborne concentrations to a level which is adequate to protect worker health, select respiratory protection equipment suitable for the specific conditions of use and meeting relevant legislation. Check with respiratory protective equipment suppliers. Where air-filtering respirators are suitable, select an appropriate combination of mask and filter. Select a filter suitable for organic gases and vapours (boiling point > 65°C; >149°F) meeting EN141. Where air-filtering respirators are unsuitable (e.g. airborne concentrations are high, risk of oxygen deficiency, confined space) use appropriate positive pressure breathing apparatus.

Hand protection: Where hand contact with the product may occur the use of gloves approved to relevant standards (e.g. Europe EN374, US: F739) made from the following materials may provide the suitable chemical protection:

	Longer term protection: Nitrile rubber gloves. Incidental contact/ Splash protection: PVC or neoprene rubber gloves.
Eye protection:	Monogoggles (EN166). Chemical splash goggles (chemical monogoggles).
Body protection:	Chemical resistant protective clothing, safety shoes and boots.

9. PHYSICAL AND CHEMICAL PROPERTIES

Form:	liquid
Color:	colorless
Odor:	parrafin-like

Data related to Shellsol® D 40:

Boiling range:	Typical 149-213°C (300-415°F)	
Flash point:	Typical 40-46°C (104-115°F)	
Auto-ignition temperature:	230-270°C (446-518°F)	(ASTM E-659)
Explosion limits:	0.6 – 6 % (V)	
Vapor pressure: (20°C)	300 Pa	
Specific gravity: (15°C)	0.77 - 0.78 g/cm^3	
Solubility in water:	insoluble	
Solubility in other solvents:	Soluble in hydrocarbon solvent(s).	
Saturated vapour conc. (in air):	18 g/m^3 (estimated value)	
Volatile organic carbon content:	85 % (EC/1999/13)	
Molecular weight:	143 – 145 g/mol	

10. STABILITY AND REACTIVITY

Stability:	Stable under normal conditions of use.
Conditions to avoid:	Avoid heat, sparks, open flames and other ignition sources.
Materials to avoid:	Strong oxidizing agents.
Hazardous decomposition products:	None known.

11. TOXICOLOGICAL INFORMATION

Basis for assessment: Information give is based on product testing, and/or similar products, and/or components.

64742-48-9 Naphtha (petroleum), hydrotreated heavy:

Acute toxicity:

- Oral, LD_{50}:	> 2000 mg/kg (rat). Expected to be of low toxicity. Aspiration into the lungs when swallowed or vomited may cause chemical pneumonitis which can be fatal.
- Dermal, LD_{50}:	> 2000 mg/kg (rat). Expected to be of low toxicity.
- Inhalation, LC_{50}:	> 5 mg/ml (4 hours, rat). Expected to be of low toxicity.

Primary effect:	
Skin irritation:	May cause moderate skin irritation (but insufficient to classify). Prolonged/repeated contact may cause defatting of the skin which can lead to dermatitis.
Eye irritation:	Essentially non-irritating to eyes.
Respiratory irritation:	Not expected to be a respiratory irritant.
Sensitization:	Not expected to be a skin sensitizer.
Repeated dose toxicity:	Kidney: caused kidney effects in male rats which are not considered relevant to humans.
Mutagenicity:	Not expected to be a mutagenic.
Carcinogenicity:	Repeated exposure causes skin tumour promotion in experimental animals.
Reproductive and development toxicity:	Not expected to impair fertility.

12. ECOLOGICAL INFORMATION

General information:	Results are based on results of components of the product as well as ecotoxicological properties of similar products.
Persistence/Degradability:	Readily biodegradable. Oxidizes rapidly by photo-chemical reactions in air.
Bioaccumulation:	Has the potential to bioaccumulate.
Acute Toxicity	
- Fish:	low toxicity, LC/EC/IC 50 > 1000 mg/l
- Aquatic invertebrates:	low toxicity, LC/EC/IC 50 > 1000 mg/l
- Algae:	low toxicity, LC/EC/IC 50 > 1000 mg/l
- Microorganisms:	Expected to be toxic: 1 < LC/EC/IC <= 10 mg/l
Mobility:	Adsorbs to soil and has low mobility. Floats on water.
Other adverse effects:	In view of the high rate of loss from solution, the product is unlikely to pose a significant hazard to aquatic life.

13. DISPOSAL CONSIDERATIONS

Material disposal:	Recover or recycle if possible. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste classification and disposal methods in compliance with applicable regulations.
Container disposal:	Drain container thoroughly. After draining, vent in a safe place away from sparks and fire. Residues may cause an explosion hazard. Do not puncture, cut or weld uncleaned drums. Send to drum recoverer or metal reclaimer.
Local legislation:	Disposal should be in accordance with applicable regional, national, and local laws and regulations. Local regulations may be more

stringent than regional or national requirements and must be complied with.

14. TRANSPORT INFORMATION

Land transportation:

ADR/RID-GGVS/E Class:	3	UN No.:	3295
Packaging group:	III	Danger label.:	3
Hazard identification no.:	30		
Correct technical name:	HYDROCARBONS, LIQUID, N.O.S. (Solvent Naphtha)		

Sea transportation:

IMDG/GGVSee Class:	3	UN No.:	3295
Packaging group:	III	Danger label:	3
Emergency Schedule:	F-E,S-D	Marine pollutant:	no
Proper shipping name:	HYDROCARBONS, LIQUID, N.O.S. (Special spirit)		

Air transportation:

ICAO/IATA Class:	3	UN-No.:	3295
Packaging group:	III	Subsidiary Risks:	-
Proper shipping name:	HYDROCARBONS, LIQUID, N.O.S. (Special spirit)		

15. REGULATORY INFORMATION

Designation according to EC guidelines: The material is subject to classification according to EC lists and other sources of literature known to us.

Hazards designation:

Xn Harmful

Risk Phrases:

R 10: Flammable
R 65: Harmful: may cause lung damage when swallowed.
R 66: Repeated contact can cause dry or chapped skin.

S-Phrases(s):

S 23: Do not breathe fumes.
S 24: Avoid contact with skin.
S 62: If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label.

National regulations:

Fire classification: A II
Technical air class: III
Water hazard class: 1, slightly toxic to water

Further information: According to 94/69/EC product does not have to be classified nor labeled to be cancerogenic (R 45).

16. OTHER INFORMATION

This information, which describes our product with regard to possible safety requirements, is based on the present state of our knowledge and experience. It is given in good faith but no warranty expressed or implied with respect to the quality and properties of our product is made.