SAFETY DATA SHEET

According to EC Regulation 1907/2006 (REACH), Attachment II

Date of issue:

01/08/2000

Last change:

01/10/2011

Autopava 3k - Part C

1 – Product and company identification

1.1. Product characteristics Chemical name: alchil (C12-C14) glicidil etere

Commercial name: Autopava 3k – Part C CAS number: 68609-97-2 EC number: 271-846-8 Temporary period according to REACH regulation, article 23 is not already expired. 1.2. Pertinent identified uses of the substance/mixture and not suggested uses Recommended use: Industrial Not suggested uses: None 1.3. Information on supplier of safety data sheet Sheet by: Pava Resine laboratory Interlocutor: Pava Resine laboratory Tel. +39 (049) 5952123 mail: info@pavaresine.it **Producer/supplier:** Pava Resine Srl. - Via Dolomiti, 6/1 - 35018 S. MARTINO DI LUPARI (PD) - Tel.: +39 (049) 5952123 **Information by:** PAVA Resine laboratory.

2 – Hazards identification

2.1. Substance/mixture classification Standard of 67/548/EC and 99/45/EC directives and following amendments: Properties / Symbols: Hazard classification Xi.N Irritant Hazard to the environment Phrases R: R36/38 Irritant for eyes and skin. R43 It can cause sensitization for contact with skin. R51/53 Toxic for aquatic organisms, it can cause long-term negative effects to aquatic environment. Standard of EC 1272/2008 norm (CLP): Attention, Eye Irrit. 2, It causes important irritation to eyes. Attention, Skin Irrit. 2, It causes dermal irritation. Attention, Skin Sens. 1, It can cause an allergic dermal reaction. Aquatic Chronic 2, Toxic for aquatic organisms with long-term effects. Physical-chemical damaging effects to human health and environment: No other hazard 2.2. Label elements Hazard classification Xi.N Dangerous to the environment Attention Hazard indications: H319 It causes important irritation to eyes. H315 It causes dermal irritation. H317 It can cause an allergic dermal reaction. H411 Toxic for aquatic organisms with long-term effects. Prudence advices:

P261 Avoid to breathe dusts/smokes/gas/fog/vapors/aerosol.

P264 Wash carefully hands after use.

P272 Work contaminated clothing have not to be bring out of work place.

P273 Do not waste to the environment.

P280 Wear gloves/protective clothing/ Protect eyes/face. P302+P352 IN CASE OF CONTACT WITH SKIN: wash abundantly with water and soap. P305+P351+P338 IN CASE OF CONTACT WITH EYES: wash carefully for several minutes. Remove contact lenses if you prefer. Continue to wash. P321 Specific treatment (see additional instructions on this label). P332+P313 In case of irritation on skin: consult a doctor. P333+P313 In case of irritation or skin eruption: consult a doctor. P337+P313 If eves irritation persists, consult a doctor. P362 Take off contaminated clothing and wash them before to wear again. P363 Wash contaminated clothing before to wear them again. P391 Pick up poured-out material. P501 Dispose product/container according to regulation. Special regulations: None 2.3. Other hazards vPvB substances: None - PBT substances: None

Other hazards:

No other hazard

3 – Composition/ Information on ingredients

3.1. Substances

Chemical characteristics: alchil (C12-C14) glicidil etere Type of product and purpose: paints for cars. Fusion. Civil engineering. Tool work. Used in applications like: Marine and protective coatings. Adhesive. Ceramic production and encapsulation. CAS number: 68609-97-2 EC number: 271-846-8 **99% - 100% C12-C14-alchil glicidil eteri** (Oxirane, mono[(C12-14-alkyloxy)methyl] derivs) CAS: 68609-97-2, EC: 271-846-8 Xi,N; R36/38-43-51/53 3.2/2 Skin Irrit. 2 H315 3.3/2 Eye Irrit. 2 H319 3.4.2/1 Skin Sens. 1 H317 4.1/C2 Aquatic Chronic 2 H411 3.2. Mixtures N.A.

<u> 4 – First Aid Measures:</u>

4.1. Description of first-aid measures

In case of contact with skin: Take off immediately contaminated clothing; Take off immediately contaminated clothing and remove them safely.

In case of contact with skin: wash immediately with abundant water and soap.

In case of contact with eyes: In case of contact with eyes wash them with water for an adequate time taking eyelids open, so consult immediately an ophtalmologis. Protect unharmed eye.

In case of ingestion: NOT cause vomit.

In case of inhalation: Bring the victim to open air and keep the victim at a warm temperature and at rest.

4.2. Main symptoms and effects, both acute and delayed.

None

4.3. Indication of possible necessity of consulting immediately a doctor and special treatments.

In case of accident or sickness consult immediately a doctor (if possible show him instructions for use and safety data sheet). Treatment: None

5 – Fire Fighting Measures

5.1. Extinguishing means

Suitable extinguishing means:

Water-spray. Fire extinguisher. Carbon dioxide extinguisher. Lather. Do not use direct dump water. It can spread fire. If available, lathers that are resistant to alcohol (like ATC) are better. In general, synthetic lathers (including AFFF) or protein

lathers can operate, but much less efficiently. A water nebulization, gradually applied, can be used as covering for fire extinguishing.

Extinguishing means that cannot be used for safety reasons: Full jet water

5.2. Special hazards deriving from substance or mixture

Do not inhale gas produced by explosion or combustion.

Combustion produces heavy smoke.

5.3. Recommendations for fire extinguishing operators.

Use adequate life-support systems.

Pick up separately contaminated water used to extinguish fire. Do not discharge into drainage system.

If safely, move not-damaged packing from dangerous area.

6 – Accidental release measures

6.1. Precautions, personal protective systems and emergency procedures.

Wear personal protective systems.

Move people to a safe place.

Consult protective measures explained in points 7 and 8.

6.2. Environmental precautions

Contain liquid to prevent ground contamination, surface or draining water.

Water used for washing must be isolated and you have to avoid infiltration into waterways, into soil and stratum waters.

Avoid infiltration into soil. Avoid flowong into water or drainage system.

Hold back washing contaminated water and remove it.

In case of gas leak or infiltration into waterways, soil or drainage system inform competent authorities.

Suitable material for the gathering: absorbent, organic or sand material

6.3. Methods and materials for containment and recovery

Wash with abundant water.

6.4. Refer to other sections

See also paragraphs 8 and 13

7 – Handling and Storage

7.1. Precautions for a safe handling

Avoid contact with skin and eyes, vapors and fog inhalation.

Do not use empty packing before they are cleaned.

Before transfer operations make sure that into packing there is not residual incompatible material.

Contaminated clothes must be substituted before to enter into lunch areas.

During work do not eat or drink.

See also paragraph 8 for recommended protective systems.

Pay attention and use any prudence to avoid contact with eyes and skin.

Keep hermetically closed packing. Keep in a fresh and dry place in perfectly closed packing. Good ventilation/aspiration in work places. Wash carefully after handling.

7.2. Conditions for a safe storing, including possible incompatibility.

Keep in a fresh and dry place. Conserve packing in a good ventilated place.

Keep far from food, beverages and feeds.

Indication for places:

Adequately ventilated places.

Keep in always well ventilated places. Keep far from naked flames, sparks and heat sources. Avoid direct sun exposition.

7.3. Final specific use/uses

No other particular use

8 – Exposure supervision/personal protection

8.1. Control parameters
None
DNEL limit values of exposition
N.A.
PNEC limit values exposition
N.A.
8.2. Exposition controls
Eves protection: Use closed safety visors, do not use contact lenses. Safety classes

Eyes protection: Use closed safety visors, do not use contact lenses. Safety glasses

Skin protection: Wear clothes that guarantee a total protection for skin, for example cotton, rubber, PVC or viton clothings. Hands protection: Use protective gloves that guarantee a total protection, for example PVC, neoprene or rubber gloves. Breathing protection: Not necessary for a normal use. Thermal risks: None Environmental exposition controls: None

9 - Physical and chemical properties

9.1. Information on general physical and chemical properties Aspect and colour: liquid Smell: typical Smell threshold: N.A. pH: N.A. Melting/freezing point: N.A. Boiling temperature and boiling range: >200°C Solid/gas flammability: N.A. Higher/lower flammability or explosion limit: N.A. Vapors density: N.A. Flammability point: >100°C Evaporation speed: N.A. Vapor pressure: 0.1hPa (20°C) Relative density: 0.89 g/cm3 (25°c) Water soluble: immiscible in water Lipid solubility: N.A. Partition coefficient (n-Octano/water): N.A. Ignition temperature: N.A. Decomposition temperature: N.A. Viscosity: 6-12 mPas(25°C)(ATSM D0445) Explosive properties: N.A. Combustive properties: N.A. 9.2. Other information Mixing: N.A. Lipid solubility: N.A. Conductivity: N.A. Typical properties of substances groups N.A.

10 - Stability and reactivity

10.1. Reactivity
In normal conditions it is stable
10.2. Chemical stability
In normal conditions it is stable
10.3. Possibility of dangerous reactions
None.
10.4. Conditions to avoid.

In normal conditions it is stable.

Stable in recommended storing conditions. Product can decompose for exposition at high temperatures. Gas development during decomposition can cause pressure in closed systems. Pressure increase can be much rapid. 10.5. Incompatible materials

Acids, bases, amines, Lewis acids, dioxides, strong oxidant agents. It does not happen spontaneously. Product masses of more than 0,5 kg with aliphatic amine/mercaptans increase will cause an irreversible polymerization with an important accumulation of heat.

10.6. Dangerous decomposition products

Dangerous decomposition products can include: Carbon monoxide. Carbon dioxide.

Decomposition products depend on temperature, available air and on presence of other substances. Gas are released during decomposition. Exothermic rampant reaction of epoxy resins releases phenol derivatives, carbon monoxide and water.

11 – Toxicological information

11.1. Information on toxicological effects

Toxicological information about substance:

alchil (C12-C14) glicidil etere - CAS: 68609-97-2 Acute oral oxicity: (rat, LD 50) mg/kg 17100 Reference: NTIS Dermal irritation: 500 micro litre/24h moderate Reference: NTIS

12 – Ecological information

12.1. Toxicity

Use according good work practices, avoiding product dispersion to the environment. Toxic for aquatic organisms, it can cause long-term negative effects to aquatic environment. 12.2. Persistence and degradability None N.A. 12.3. Bioaccumulation potential N.A. 12.4. Soil mobility N.A. 12.5. PBT and vPvB assessment results vPvB substances: None – PBT substances: None 12.6. Other negative effects None

13 – Disposal considerations

13.1. Waste treatment methods Recycle if possible. Operate according to current local and national regulations.

14 – Transport information

14.1. ONU Number ADR-UN Number: 3082 IATA-UN Number: 3082 IMDG-UN Number: 3082 14.2. ONU shipment name ADR-Shipping Name: DANGEROUS SUBSTANCE TO THE ENVIRONMENT, LIQUID N.A.S. (C12-C14-alchil glicidil eteri (Oxirane, mono[(C12-14-alkyloxy)methyl] derivs)) IATA-Shipping Name: DANGEROUS SUBSTANCE TO THE ENVIRONMENT, LIQUID N.A.S. (C12-C14-alchil glicidil eteri (Oxirane, mono[(C12-14-alkyloxy)methyl] derivs)) IMDG-Shipping Name: DANGEROUS SUBSTANCE TO THE ENVIRONMENT, LIQUID N.A.S. (C12-C14-alchil glicidil eteri (Oxirane, mono[(C12-14-alkyloxy)methyl] derivs)) 14.3. Hazard class/classes to transport ADR-Class: 9 ADR - Hazard identification number: 90 IATA-Class: 9 IATA-Label: Miscellaneous IMDG-Class: 9 14.4. Packing group ADR-Packing Group: III IATA-Packing group: III IMDG-Packing group: III 14.5 Hazards for the environment ADR-Environmental pollutant: Yes IMDG-Marine pollutant: Marine Pollutant 14.6. Special precautions for users ADR- Code of arcade restriction: (E) IATA-Passenger Aircraft: 964 IATA-Cargo Aircraft: 964 IATA-S.P.: A97-A158 IATA-ERG: 9L IMDG-EMS: F-A, S-F IMDG-Storage category: A 14.7. Bulks transport according to attachment II of MARPOL 73/78 and IBC code N.A.

15 – Regulatory information

15.1. Norms on health, safety and environment for substance or mixture D.Lgs. 3/2/1997 n. 52 (Classification, packing and labeling dangerous substances). D.Lgs 14/3/2003 n. 65 (Classification, packing and labeling dangerous formulations). D.Lgs. 2/2/2002 n. 25 (Risks deriving by chemical agents during work). D.M. Work 26/02/2004 (Professional exposition limit); D.M. 03/04/2007 (Directive n. 2006/8/EC). (EC) n. 1907/2006 regulation (REACH), (EC) n. 1272/2008 regulation (CLP), (EC) n. 790/2009 regulation (1° ATP CLP), (UE) n. 453/2010 regulation (Attachment I). If possible refer to following norms: Ministerial newsletters 46 and 61 (Aromatic Amines). D.Lgs. 21 September 2005 n. 238 (Seveso Ter directive) CE n. 648/2004 regulation (Cleansers). D.L. 3/4/2006 n. 152 Environmental norms 15.2. Chemical safety assessment No

16 - Other information

Text of sentences used in paragraph 3: R36/38 Irritant for eyes and skin. R43 It can cause sensitization for contact with skin. R51/53 Toxic for aquatic organisms, it can cause long-term negative effects to aquatic environment. H315 It causes dermal irritation. H319 It causes important irritations to eyes. H317 It can cause a dermal allergic reaction. H411 Toxic for aquatic organisms with long-term effects. This document has been written by a competent technician that has received an adequate education. Principal bibliographic sources: NIOSH - Registry of toxic effects of chemical substances (1983) I.N.R.S. - Fiche Toxicologique CCNL - Attachment 1 "TLV for 1989-90" Health Superior Institute - National inventory of Chemical substances RTECS (Registry of Toxic Effects of Chemical Substances); HSDB (Hazardous Substances Data Bank); IRIS (Integrated Risk Information System); CHRIS (Chemical Hazards Response Information System); OHMTADS (Oil and Hazardous Materials Technical Assistance Data System); TSCA (Toxic Substances Control Act). Toxline (Toxicology literature online); DART (Developmental Toxicology Literature) ChemIDplus (Chemical Identification/Dictionary); HSDB (Hazardous Substances Data Bank); CCRIS (Chemical Carcinogenesis Information); CPDB (Carcinogenic Potency Database); GENETOX (Genetic Toxicology Data); IRIS (Integrated Risk Information System); ITER (International Toxicology Estimates for Risk); LactMed (Drugs and Lactation Database); TRI (Toxics Release Inventory): TOXMAP (Environmental Health e-Maps); Haz-Map (Occupational Exposure/Toxicology); Household Products (Health & Safety information on Household products). APME - ERC Information are based on knowledge that were available at compiling time, relating to prescriptions and correct use of the product. User has to make sure of such information suitability and completeness, relating to the specific use.

This sheet abolishes and replaces every prior edition.

ADR: European Agreement relating international street transport of dangerous goods.

CAS: Chemical Abstracts Service (American Chemical Society division).

CLP: Classification, Labeling, Packing.

DNEL: Derived Level without effect. EINECS: European Inventory of existing Chemical substances. GefStoffVO: Decree on dangerous substances in Germany. GHS: Global harmonized system of chemical products classification and labeling IATA: Association for international air transport. IATA-DGR: Regulation on dangerous goods by "International air transport Association" (IATA). ICAO: International organization for civil aviation. ICAO-TI: Technical instructions by "international Organization for civil aviation". (ICAO). IMDG: Maritime international code for dangerous goods. INCI: International nomenclature of cosmetic ingredients. KSt: Explosion coefficient. LC50: Letal concentration for 50% of test population. LD50: Letal dose for 50% of test population. LTE: Long-term exposition. PNEC: Expected concentration without effect. RID: Regulation about international railway transport of dangerous goods. STE: Short-term exposition. STEL: Short-term exposition limit. STOT: Organ-specific toxicity.

TLV: Limit value of threshold.

TWATLV: Limit value of threshold for an average weighted on 8 hours. (ACGIH Standard).

WGK: Hazard class for waters (Germany).

Safety data Sheet by

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Interlocutor

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Note for reader

Information in this safety data sheet have been considered valid by Pava Resine at the moment of preparation or they have been prepared basing on sources considered to be reliable, but user has to investigate and understand other sources of information, follow all laws and procedures about safe handling and use of the product and to define suitability of the product for the expected use. All Pava Resine products are subjected to sell terms and conditions of Pava Resine. PAVA RESINE DO NOT ISSUE ANY WARRANTIES, EXPLICIT OR IMPLICIT, CONCERNING THE PRODUCT OR ITS MERCHANTABILITY OR SUITABILITY FOR ANY PURPOSE OR CONCERNING ACCURACY OF ANY INFORMATION PROVIDED BY PAVA RESINE, except that product consists with specifications. None information in this document represents a sell offer of products. User has to ensure that his activities respect all national and local norms. Since using product conditions cannot be regulated by producer, user has to define conditions that are necessary to use this product safely.