In accordance with Globally Harmonized System of Classification and Labelling of Chemicals (GHS)- Chapter 1.5 and Annex 4

SAFETY DATA SHEET

Product: ANJODUR POLYESTER - SPECTRUS GRAY MET VW 11

Revision: 01	Date: 2020/07/24	Pages: 1/11

1 - IDENTIFICATION

GHS Product identifier:	ANJODUR POLYESTER - SPECTRUS GRAY MET VW 11
Other means of identification:	034390-00
Recomended use of the chemical:	Used for general or partial painting of automotive vehicles.
Restrictions on use:	There are not known restrictions on use of the product.
Suplier`s details:	ANJO QUIMICA DO BRASIL LTDA
Address:	Acesso Estadual Rio Maina, nº 1165, Bairro Vila Macarini CEP: 88818-800, Criciúma - SC - BR
Phone number(s):	(48) 34618000 (48) 34618049
Emergency phone number:	CIATox/SC (Centro de Informação e Assistência Toxicológica de Santa Catarina) 08006435252

2 - HAZARD IDENTIFICATION

Classification of the substance or mixture:	Carcinogenicity - Category 1A Flammable Liquids - Category 2 Hazardous to the Aquatic Environment - Acute Hazard - Category 3 Reproductive Toxicity - Category 2 Respiratory Sensitization - Category 1 Skin Corrosion/Irritation - Category 2 Skin Sensitization - Category 1 Specific Target Organ Toxicity –Repeated Exposure - Category 2 Specific Target Organ Toxicity –Single Exposure - Category 3
Classification system adopted:	Globally Harmonized System of Classification and Labeling of Chemicals (GHS), United Nations.

GHS label elements, including precautionary statements

Pictograms:

Signal word:	DANGER
Hazard statement(s):	H225 Highly flammable liquid and vapour. H315 Causes skin irritation. H317 May cause an allergic skin reaction. H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled. H336 May cause drowsiness or dizziness. H350 May cause cancer. H361 Suspected of damaging fertility or the unborn child. H373 Can cause damage to the central nervous system through prolonged or repeated exposure. H402 Harmful to aquatic life.

Precautionary statement(s):	**PREVENTION:** P201 Obtain special instructions before use. P202 Do not handle until all safety precautions have been read and understood. P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P233 Keep container tightly closed. P240 Ground and bond container and receiving equipment. P241 Use explosion-proof electrical, ventilating and lighting equipment. P242 Use non-sparking tools. P243 Take action to prevent static discharges. P260 Do not breathe dust/fume/gas/mist/vapours/spray. P261 Avoid breathing dust/fume/gas/mist/vapours/spray. P264 Wash hands thoroughly after handling. P271 Use only outdoors or in a well-ventilated area. P272 Contaminated work clothing should not be allowed out of the workplace. P273 Avoid release to the environment. P280 Wear protective gloves, protective clothing, eye protection, face protection and hearing protection. P284 In case of inadequate ventilation, wear respiratory protection. **RESPONSE TO EMERGENCY:** P302 + P352 IF ON SKIN: Wash with plenty of water. P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower]. P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing. P308 + P313 IF exposed or concerned: Get medical advice/attention. P312 Call a POISON CENTER or a doctor, if you feel unwell. P314 Get medical advice/attention if you feel unwell. P321 Specific treatment. P332 + P313 If skin irritation occurs: Get medical advice/attention. P333 + P313 If skin irritation or rash occurs: Get medical advice/attention. P342 + P311 If experiencing respiratory symptoms: Call a POISON CENTER or a doctor. P362 + P364 Take off contaminated clothing. And wash it before reuse. P370 + P378 In case of fire: Use carbon dioxide (CO_2), foam, water mist and powder to extinguish. **STORAGE:** P403 + P233 Store in a well-ventilated place. Keep container tightly closed. P403 + P235 Store in a well-ventilated place. Keep cool. P405 Store locked up. **DISPOSITION:** P501 Dispose of contents and container in accordance with local regulations.
Other hazards which do not result in classification:	The product has no other hazards.

3 - COMPOSITION/INFORMATION ON INGREDIENTS

MIXTURE

Components contributing to the hazard:	Sec-butyl acetate (CAS 105-46-4): 17.34 - 52.03 %; Toluene (CAS 108-88-3): 8.67 - 26.02 %; Ethyl acetate (CAS 141-78-6): 4.93 - 14.79 %; Xylene (CAS 1330-20-7): 2.71 - 8.13 %; Neopentyl glycol (CAS 2223-82-7): 1.58 - 4.75 %; Phthalic anhydride (CAS 85-44-9): 1.51 - 4.54 %; Adipic acid (CAS 124-04-9): 1.24 - 3.72 %; 2.2-bis(acryloyloxymethyl)butyl acrylate trimethylolpropane triacrylate (CAS Not applicable): 0.69 - 2.06 %; Butanol (CAS 71-36-3): 0.26 - 0.78 %; 2-butoxyethanol (CAS 111-76-2): 0.16 - 0.49 %; Ethylglycol acetate (CAS 111-15-9): 0.14 - 0.42 %; 1-methoxy-2-propanol (CAS 107-98-2): 0.10 - 0.29 %.

4 - FIRST-AID MEASURES

Routes of exposure

Inhalation:	Remove victim to fresh air and keep at rest in a position comfortable for breathing. If the victim feels unwell, contact a TOXICOLOGICAL INFORMATION CENTER or a doctor. Bring this SDS.
Skin:	Wash exposed skin with sufficient amount of water to remove the material. Take off and isolate contaminated clothing and shoes. In case of skin irritation: contact a doctor. Bring this SDS.
Eye:	Wash carefully with water for several minutes. In case of use of contact lenses, remove them, if possible. Keep washing. If eyes irritation continues: Contact a doctor. Bring this SDS.
Ingestion:	Do not induce vomiting. Never give anything by mouth to an unconscious person. Rinse the victims mouth with water in abundance. If the victim feels unwell, contact a TOXICOLOGICAL INFORMATION CENTER or a doctor. Bring this SDS.
Most important symptoms/effects, acute and delayed:	May cause an allergic skin reaction with pruritus and dermatitis. Causes skin irritation with Redness, pain and dryness. May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause drowsiness or dizziness. Can cause damage to the central nervous system through prolonged or repeated exposure.
Indication of immediate medical attention and special treatment needed, if necessary:	Avoid contact with the product to help the victim. Keep victim warm and quiet. Symptomatic treatment should comprise mainly supportive measures such as correction of electrolyte disturbances, metabolic, and respiratory support. In case of skin contact do not rub the affected area.

5 - FIRE-FIGHTING MEASURES

Extinguishing Media:	Appropriate: carbon dioxide (CO_2), foam, water mist and powder. Inappropriate: water directly onto the burning product.
Specific hazards arising from the chemical:	The combustion of the chemical containers may form toxic and irritant gases such as carbon monoxide and carbon dioxide. Very dangerous when exposed to excessive heat or other sources of ignition such as sparks, open flames or flames of matches and cigarettes, welding operations, pilot

	lights and electric motors. Can accumulate static charge by flow or agitation. Vapors from heated liquid can be ignited by static discharge. Vapors are heavier than air and tend to accumulate in low or confined areas, such as sewers and basements. Can travel great distances causing retrogression of the flame or new fires both in open environments in as confined ones. Containers may explode if heated.
Special protective actions for fire-fighters:	Use self-contained breathing apparatus (SCBA) operated in positive pressure mode and complete protective clothing. Containers and tanks involved in the fire should be cooled with water mist.

6 - ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel:	Prevent sparks or flames. Do not smoke. Do not touch damaged containers or spilled material without the use of appropriate clothing. Avoid exposure to the product. Stay in a safe place, with wind from behind. Use personal protective equipment as described in Section 8.
For emergency service personnel:	Wear complete PPE with safety glasses, safety gloves, suitable protective clothing and closed shoes. In case of leakage, where exposure is high, it is recommended to use a suitable respiratory protection mask.
Environmental precautions:	Avoid that the spilled material reaches waterways or sewage system.
Methods and materials for containment and cleaning up:	Use water mist or vapor suppressing foam to reduce the dispersion of vapors. Use natural barriers or spill containment. Collect spilled material and put it into containers. Adsorb the remaining product with dried sand, vermiculite or any other inert material. Put the adsorbed material in appropriate containers and remove them to a safe place. Use tools that do not cause sparks to collect absorbed material. For final destination, proceed pursuant to Section 13 of this SDS.

7 - HANDLING AND STORAGE

Precautions for safe handling

Safe handling of the substance or mixture:	Handle in a well ventilated area or with general system of ventilation/local exhaust. Avoid vapors and mists formation. Avoid exposure to the chemical, since the effects may not be felt immediately.
General hygiene:	Wash hands and face thoroughly after handling and before eating, drinking, smoking or going to the bathroom. Contaminated clothing should be changed and washed before reuse. Remove clothing and protective equipment contaminated before entering eating areas.

Conditions for safe storage, including any incompatibilities

Technical measures for prevention of fire and explosion:	Keep away from heat, sparks, open flames and hot surfaces. - Do not smoke. Keep container tightly closed. Ground the container vessel and the receiver of the product during transfers. Only use anti-sparking tools. Avoid the accumulation of electrostatic charges. Use electrical equipment, ventilation and lighting explosion proof. Use personal protective equipment as described in Section 8.
Adequate conditions:	Store in a well ventilated place, away from sunlight. Keep container closed. Keep away from high temperatures and ignition sources.
Packaging	Similar to the original packaging.

compatibilities:	
Inadequate packaging materials:	There are not known unsuitable material of the product.

8 - EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Occupational exposure limit:

The values below apply to workplaces.

- 1-methoxy-2-propanol:
ACGIH - TLV - TWA: 50 ppm;
ACGIH - TLV - STEL: 100 ppm.
- Ethylglycol acetate:
ACGIH - TLV - TWA: 5 ppm.
- 2-butoxyethanol:
ACGIH - TLV - TWA: 20 ppm.
- Butanol:
ACGIH - TLV - TWA: 20 ppm.
- Adipic acid:
ACGIH - TLV - TWA: 5 mg/m³.
- Phthalic anhydride:
ACGIH - TLV - TWA: 0.002 mg/m³ (IFV);
ACGIH - TLV - STEL: 0.005 mg/m³ (IFV).
- Xylene:
ACGIH - TLV - TWA: 100 ppm;
ACGIH - TLV - STEL: 150 ppm.
- Ethyl acetate:
ACGIH - TLV - TWA: 400 ppm.
- Toluene:
ACGIH - TLV - TWA: 20 ppm.
- Sec-butyl acetate:
ACGIH - TLV - TWA: 50 ppm;
ACGIH - TLV - STEL: 150 ppm.

IFV: Inhalable fraction and vapor.

Biological limit:

- Ethylglycol acetate:
ACGIH - BEI: Determinant: 2-Ethoxyacetic acid in urine. Sampling Time: End of shift at end of workweek. Index: 100.00 mg/g creatinine.
- 2-butoxyethanol:
ACGIH - BEI: Determinant: Butoxyacetic acid (BAA) in urine. Sampling Time: End of shift. Index: 200.00 mg/g creatine.
- Toluene:
ACGIH - BEI: Determinant: o-Cresol in urine. Sampling Time: End of shift. Index: 0.30 mg/g creatinine. B; Determinant: Toluene in blood. Sampling Time: Prior to last shift of workweek. Index: 0.02 mg/L; Determinant: Toluene in urine. Sampling Time: End of shift. Index: 0.03 mg/L.

B: The determinant may be present in biological specimens collected from subjects who have not been occupationally exposed, at a concentration which could affect the

	interpretation of the results. Such background concentrations are incorporated in the BEI value
Other limits and values:	- Ethyl acetate: IDLH (NIOSH, 2010): 2000 ppm - 2-butoxyethanol: IDLH (NIOSH - 2010): 700 ppm
Appropriate engineering controls:	Promote mechanical ventilation and exhaust system to outside. These acts help reducing the exposition to the product. Maintain atmospheric concentrations of the constituents of the product below occupational exposure limits indicated.
Individual protection measures, such as personal protective equipment (PPE)	
Eye/face protection:	Safety glasses.
Skin protection:	Closed shoes and suitable protective clothing. Appropriate protective gloves.
Respiratory protection:	A risk assessment should be performed for proper definition of respiratory protection, in view of the product use conditions.
Thermal hazards:	It does not present thermal hazards.

9 - PHYSICAL AND CHEMICAL PROPERTIES

Aspect:	Liquid.
Color:	Not available.
Odour:	Not available.
Melting point/freezing point:	Not available.
Boiling point or initial boiling point and boiling range:	Not available.
Flammability:	Flammable.
Lower and upper explosion limit/flammability limit:	Not available.
Flash point:	23 °C (73.4 °F) - Closed cup.
Auto-ignition temperature:	Not available.
Decomposition temperature:	Not available.
pH:	Not available.
Kinematic viscosity:	Not available.
Solubility:	Water immiscible.
Partition coeficient n-octanol/water (log	Not available.

value):	
Vapour pressure:	Not available.
Relative vapour density:	Not available.
Density and/or relative density:	0.91 to 0.96.
Particle characteristics:	Not available.
Other information:	Not applicable.

10 - STABILITY AND REACTIVITY

Reactivity:	Reactivity is not to be expected under normal conditions of temperature and pressure
Stability:	Product is stable under normal conditions of temperature and pressure.
Possibility of hazardous reactions:	Phthalic anhydride: Mixtures with sodium nitrite explode violently under heating. Mixtures with copper (II) oxide explode violently under heating. Xylene: Risk of explosion when in contact with nitric acid and uranium hexafluoride. May react dangerously with oxidizing agents and sulfuric acid. 1-methoxy-2-propanol: Reacts violently with strong oxidizing agents, hydrochloric acid and acid anhydride. Toluene: Reacts violently with fuming sulfuric acid, nitric acid, silver, perchlorate, nitrogen dioxide, nonmetallic halides, acetic acid, uranium hexafluoride, and organic nitrogen compounds at risk of explosion. Butanol: Reacts dangerously in contact with aluminum, strong reducing agents, acid chlorides and sulfur trioxides. Reacts on contact with metallic alkalis, releasing flammable hydrogen. 2-butoxyethanol: May react dangerously with aluminum and oxidizing agents. May form peroxides in contact with air. Ethyl acetate: Reacts dangerously with strong oxidizing agents and chlorosulfonic acid, which can start a fire or explosion. Sec-butyl acetate: Reacts with strong oxidizers, strong acids and strong bases with risk of explosion. Product vapors may form explosive mixtures with air.
Conditions to avoid:	Elevated temperatures. Ignition sources. Contact with incompatible materials Humidity.
Incompatible material:	Acetaldehyde, Acid anhydride, Acid chlorides, Acids, Air, Alcohol, Alkali, Alkali metals, Aluminum, Aniline, Chlorinated hydrocarbons, Chromium trioxide, Compounds with high affinity for hydroxyl groups, Concentrated oxygen, Ethylene oxide, Hydrochloric acid, Hydrochloric acid, Isocyanates, Magnesium carbonate, Nitrates, Nitric acid, Nitrogen dioxide, Nitromethane, Nonmetallic halides, Organic nitrogen compounds, Oxidizing Agents, Oxygen, Perchlorates, Perchloric acid, Phenol, Radioactive materials, Reducing Agents, Silver, Sodium nitrite, Spontaneous combustion of materials, Strong reducing agents, Sulphuric acid, Uranium hexafluoride and Water.
Hazardous decomposition products:	There are no known hazardous decomposition products.

11 - TOXICOLOGICAL INFORMATION

Acute toxicity:	Product not classified as acute toxic by oral. ATEmix (Oral): > 5000 mg/kg.

Skin corrosion/irritation:	Causes skin irritation with redness, pain and dryness.
Serious eye damage/irritation:	It is not expected that the product causes eye irritation.
Respiratory or skin sensitization:	May cause an allergic skin reaction with pruritus and dermatitis. May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Germ cell mutagenicity:	It is not expected that the product presents germ cell mutagenicity.
Carcinogenicity:	May cause cancer.
Reproductive toxicity:	Suspected of damaging fertility or the unborn child. The ingredient Ethylglycol acetate, classified as reproductive toxicant - category 1B, is in concentration < 0,3% and does not contribute to this classification of the product. The ingredient 2-butoxyethanol, classified as reproductive toxicant - category 2, is in concentration < 3% and does not contribute to this classification of the product.
STOT - Single exposure:	May cause drowsiness or dizziness, may cause dizziness and nausea. Information regarding to : - Xylene: At high concentrations may cause hypotension, tachycardia, vasodilation, dizziness, incoordination, headache, confusion, stupor and coma.
STOT - Repeated exposure:	May cause damage to the central nervous system through prolonged or repeated exposure, may cause anorexia, auditory dysfunction, difficulty in concentrating, sleep disorder and visual disturbance.
Aspiration Hazard:	It is not expected that the product presents aspiration hazard.

12 - ECOLOGICAL INFORMATION

Toxicity:	Harmful to aquatic life. Information regarding to : - Toluene: LC_{50} (*Amphiprion ocellaris*, 96h): > 100 mg/L; EC_{50} (*Ceriodaphnia dubia*, 48h): > 100 mg/L. - Xylene: NOEC (*Oncorhynchus mykiss*, 56 d): > 1 mg/L; NOEC (*Ceriodaphnia dubia*, 7 d): > 1 mg/L; LC_{50} (*Lepomis macrochirus*, 96h): 19 mg/L; EC_{50} (*Crustacea*, 48h): 8.5 mg/L. - Phthalic anhydride: ErC_{50} (*Pseudokirchneriella subcapitata*, 96h): 41.4 - 78.43 mg/L.
Persistence and degradability:	Due to the lack of data, it is expected that the product presents persistence and it is not considered readily biodegradable.
Bioaccumulative potential:	Presents low bioacumulative potencial in aquatic organisms. Information regarding to : - Xylene: BCF: 6 log K_{ow}: 3.09 - Phthalic anhydride: BCF: 4053 ((calculated))

	log K_{ow}: 1.6
Mobility in soil:	Not determined.
Other adverse effects:	There are not known other environmental effects for this product.

13 - DISPOSAL CONSIDERATIONS

Disposal methods

Must be disposed of as hazardous waste in compliance with local regulations. The treatment and disposal should be evaluated for each specific product.
Keep the product remains in its original and properly closed containers. Disposal should be performed as established for the product.

14 - TRANSPORT INFORMATION

Road:	UN - United Nations: Model Regulations: • Recommendations on the Transport of Dangerous Goods.
UN number:	1263
Proper shipping name:	PAINT
Primary risk class or division:	3
Subsidiary risk class or division:	NA
Packing group:	III
Railway regulations:	COTIF - Convention concerning International Carriage by Rail: • Appendix C: RID - Regulations concerning the International Carriage of Dangerous Goods by Rail
UN number:	1263
Proper shipping name:	PAINT
Primary risk class or division:	3
Subsidiary risk class or division:	NA
Packing group:	III
Sea:	IMO - International Maritime Organization: • IMDG Code - International Maritime Dangerous Goods Code.
UN number:	1263
Proper shipping name:	PAINT
Primary risk class or division:	3
Subsidiary risk class	NA

or division:	
Packing group:	III
EmS:	F-E,S-E
Environmental hazards:	The product is not considered a marine pollutant.
Air:	IATA - International Air Transport Association: • DGR - Dangerous Goods Regulation.
UN number:	1263
Proper shipping name:	PAINT
Primary risk class or division:	3
Subsidiary risk class or division:	NA
Packing group:	III

15 - REGULATORY INFORMATION

Convention concerning Safety in the use of Chemicals at Work (Convention 170) - International Labour Organization, 1990.

16 - OTHER INFORMATION

This SDS was prepared based on current knowledge about the proper product handling and under normal conditions of use, in accordance with the application specified on the packaging. Any other use of the product involving their combination with other materials, and use various forms of those indicated, are the responsibility of the user. Warns that the handling of any chemical substance requires the prior knowledge of its hazards for the user. In the workplace it is for the user company's product promotes training of its collaborators about the possible risks arising from exposure to the chemical.

Elaborated July 2020.
Change Control:

Version	Publication Date	Changes
01	24/07/2020	Elaboration

Abbreviations:
ACGIH - American Conference of Governmental Industrial Hygienists;
ATEmix - Acute Toxicity Estimate of the mixture;
BCF - Bioconcentration factor;
BEI - Biological Exposure Index;
CAS - Chemical Abstracts Service;
EC_{50} - Effective Concentration 50%;
IDLH - Immediately Dangerous to Life or Health;
Kow - Octanol/Water partition coefficient;

LC_{50} - Lethal Concentration 50%;
NIOSH - National Institute for Occupational Safety and Health;
NOEC - No Observed Effect Concentration;
STEL - Short Term Exposure Limit;
TLV - Threshold Limit Value;
TWA - Time Weighted Average;
UN - United Nations.

Bibliographic references:

GHS - GLOBALLY HARMONIZED SYSTEM OF CLASSIFICATION AND LABELLING OF CHEMICALS. 8th rev. ed. New York: United Nations, 2019.

ACGIH - AMERICAN CONFERENCE OF GOVERNMENTAL INDUSTRIALS HYGIENISTS. TLVs® and BEIs®: Based on the Documentation of the Threshold Limit Values (TLVs®) for Chemical Substances and Physical Agents & Biological Exposure Indices (BEIs®). Cincinnati-USA, 2020.