

SAFETY DATA SHEET

P 60-A TUK PALE GREEN

In accordance with the Standard for Classification and Labeling of Chemical Substance and Safety Data Sheet,
Article 10 Paragraph 1

Section 1. Chemical product and company identification

A. Product name : P 60-A TUK PALE GREEN
SDS code : 21060500K

B. Relevant identified uses of the substance or mixture and uses advised against

Identified uses	
<input checked="" type="checkbox"/>	Professional use
<input type="checkbox"/>	Industrial use
Uses advised against	
<input type="checkbox"/>	All other uses

Product use : Two component coating for interior use.

C. Supplier's details

MAPAERO SAS
10, Avenue de la Rijole CS30098
09103 PAMIERS Cedex
France

e-mail address of person responsible for this SDS : PSRA_PAMIERS@akzonobel.com

Emergency telephone number (with hours of operation) : +33 (0)5 34 01 34 01
+33 (0)5 61 60 23 30

Section 2. Hazards identification

A. Hazard classification : FLAMMABLE LIQUIDS - Category 3
CORROSIVE TO METALS - Category 1
ACUTE TOXICITY (oral) - Category 4
SKIN CORROSION - Category 1C
SERIOUS EYE DAMAGE - Category 1
SKIN SENSITIZATION - Category 1
GERM CELL MUTAGENICITY - Category 2
CARCINOGENICITY - Category 1A
TOXIC TO REPRODUCTION - Category 1B
AQUATIC HAZARD (LONG-TERM) - Category 2

This product is classified in accordance with the Industrial Safety and Health Act and the Chemical Control Act.

B. GHS label elements, including precautionary statements

Date of issue/Date of revision : 8-3-2023 **Version** : 3.01
Date of previous issue : 7-12-2022 1/16

Section 2. Hazards identification

Symbol

:



Signal word

: Danger

Hazard statements

: H226 - Flammable liquid and vapor.
 H290 - May be corrosive to metals.
 H302 - Harmful if swallowed.
 H314 - Causes severe skin burns and eye damage.
 H317 - May cause an allergic skin reaction.
 H341 - Suspected of causing genetic defects.
 H350 - May cause cancer.
 H360 - May damage fertility or the unborn child.
 H411 - Toxic to aquatic life with long lasting effects.

Precautionary statements

Prevention

: P201 - Obtain special instructions before use.
 P280 - Wear protective gloves, protective clothing and eye or face protection.
 P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
 P234 - Keep only in original packaging.
 P273 - Avoid release to the environment.
 P261 - Avoid breathing vapor.
 P270 - Do not eat, drink or smoke when using this product.
 P264 - Wash hands thoroughly after handling.

Response

: P391 - Collect spillage.
 P390 - Absorb spillage to prevent material damage.
 P308 + P313 - IF exposed or concerned: Get medical advice or attention.
 P304 + P310 - IF INHALED: Immediately call a POISON CENTER or doctor.
 P301 + P310 + P330 + P331 - IF SWALLOWED: Immediately call a POISON CENTER or doctor. Rinse mouth. Do NOT induce vomiting.
 P303 + P361 + P353 + P310 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. Immediately call a POISON CENTER or doctor.
 P363 - Wash contaminated clothing before reuse.
 P302 + P352 - IF ON SKIN: Wash with plenty of water.
 P333 + P313 - If skin irritation or rash occurs: Get medical advice or attention.
 P305 + P351 + P338 + P310 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor.

Storage

: P403 + P235 - Store in a well-ventilated place. Keep cool.

Disposal

: P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.

C. Other hazards which do not result in classification

: None known.

Section 3. Composition/information on ingredients

Substance/mixture

: Mixture

Section 3. Composition/information on ingredients

Ingredient name	Common name	Identifiers	%
butan-2-ol	butan-2-ol	CAS: 78-92-2	≥15 - ≤20
strontium chromate	Strontium chromate, pure	CAS: 7789-06-2	≥15 - ≤20
titanium dioxide	Titanium dioxide	CAS: 13463-67-7	≥10 - ≤15
reaction product: bisphenol-A-(epichlorhydrin); epoxy resin	reaction product: bisphenol a-(epichlorhydrin)	CAS: 25068-38-6	≥10 - ≤15
nitroethane	nitroethane	CAS: 79-24-3	≤10
Talc , not containing asbestiform fibres	talc (non-asbestos form)	CAS: 14807-96-6	≤10
1,3-Propanediol, 2-ethyl-2-(hydroxymethyl)-, polymer with 2-(chloromethyl)oxirane	trimethylopropane triglycidyl ether	CAS: 30499-70-8	≤10
Amines, polyethylenepoly-, triethylenetetramine fraction	Triethylenetetramine	CAS: 90640-67-8	≤5
zinc oxide	zinc oxide	CAS: 1314-13-2	≤5
barium chromate	Barium chromate, pure	CAS: 10294-40-3	≤5

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

- A. Eye contact** : Get medical attention immediately. Call a poison center or physician. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician.
- B. Skin contact** : Get medical attention immediately. Call a poison center or physician. Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- C. Inhalation** : Get medical attention immediately. Call a poison center or physician. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

Section 4. First aid measures

- D. Ingestion** : Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Chemical burns must be treated promptly by a physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
- E. Notes to physician** : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- Specific treatments** : No specific treatment.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

- A. Extinguishing media**
- Suitable extinguishing media** : Use dry chemical, CO₂, water spray (fog) or foam.
- Unsuitable extinguishing media** : Do not use water jet.
- B. Specific hazards arising from the chemical** : Flammable liquid and vapor. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. This material is toxic to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.
- Hazardous thermal decomposition products** : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
nitrogen oxides
halogenated compounds
metal oxide/oxides
- C. Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
- Special precautions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

Section 6. Accidental release measures

- A. Personal precautions, protective equipment and emergency procedures** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
- B. Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities. Collect spillage.
- C. Methods and materials for containment and cleaning up**
- Small spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Absorb spillage to prevent material damage. Dispose of via a licensed waste disposal contractor.
- Large spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Absorb spillage to prevent material damage. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

A. Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Avoid release to the environment. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container. Absorb spillage to prevent material damage.
- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Section 7. Handling and storage

- B. Conditions for safe storage, including any incompatibilities** : Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store in a corrosion resistant container with a resistant inner liner. Store locked up. Eliminate all ignition sources. Separate from oxidizing materials. Keep away from metals. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Section 8. Exposure controls/personal protection

A. Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
butan-2-ol	Ministry of Employment and Labor (Republic of Korea, 1/2020). STEL: 150 ppm 15 minutes. TWA: 100 ppm 8 hours.
strontium chromate	Ministry of Employment and Labor (Republic of Korea, 1/2020). TWA: 0.0005 mg/m ³ 8 hours.
nitroethane	Ministry of Employment and Labor (Republic of Korea, 1/2020). TWA: 100 ppm 8 hours.
barium chromate	Ministry of Employment and Labor (Republic of Korea, 1/2020). [Chromium (VI) compounds] TWA: 0.01 mg/m ³ 8 hours.

- B. Appropriate engineering controls** : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.
- Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

C. Personal protective equipment

- Respiratory protection** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.
- The recommended mask and the minimum required protection factors depend on the specific activity, and are described in the paragraph "Exposure Scenario information" below.
- Eye protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles and/or face shield. If inhalation hazards exist, a full-face respirator may be required instead.

Section 8. Exposure controls/personal protection

- Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.
- Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
- Exposure Scenario information** : Relevant Information from Exposure Scenario:
- The following Operational Conditions and Risk Management Measures are to be respected:
- During preparation and/or mixing of the product, loading of paint to the application equipment, cleaning and/or maintenance of application equipment:
- Wear chemical resistant gloves with a minimum protection factor of 90%
- During manual spraying of the product:
- Duration of treatment/exposure : maximum 6h/shift
 - Use of a walk-in spray booth with negative pressure
 - A Respiratory Protection Device (RPD) with APF 1000 or higher must be used, the Work Related Protection factor (WPF) has to be verified to exceed 1000 for each worker whichever RPD is used.
 - Use Chemical Resistant Gloves (tested to EN374) in combination with intensive management supervision controls and training (efficacy 99%)
- During manual stripping of coatings with abrasive techniques (e.g. sanding, deburring) and dust removal (cleaning of sanding/deburring area):
- Duration of treatment/exposure maximum 0.25h/shift
 - Integrated LEV, humidity used to reduce dust (efficacy assumed to be 70%)
 - A Respiratory Protection Device (RPD) with APF 40 or higher is used
- During waste management of stripped paint or sealant:
- Duration of treatment/exposure max 1 hour/shift
 - LEV with an efficiency of 78% or higher plus vacuum cleaner (efficiency 80% or higher)
 - A Respiratory Protection Device (RPD) with APF 40 or higher is used

Section 9. Physical and chemical properties

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

A. Appearance

Physical state : Liquid.

Color : Green.

B. Odor : Characteristic.

C. Odor threshold : Not available.

D. pH : Not available. [DIN EN 1262]

E. Melting/freezing point : Not available.

F. Boiling point, initial boiling point, and boiling range : Not available.

G. Flash point : Closed cup: 25°C (77°F) [Pensky-Martens]

H. Evaporation rate : Not available.

I. Flammability (solid, gas) : Not available.

J. Lower and upper explosive (flammable) limits : Not available.

K. Vapor pressure :

Ingredient name	Vapor Pressure at 20°C			Vapor pressure at 50°C		
	mm Hg	kPa	Method	mm Hg	kPa	Method
butane	20.9	2.8				
butan-2-ol	12.75	1.7				
butan-1-ol	<7.5	<1	DIN EN 13016-2			
aluminium hydroxide	<0.075	<0.01				
[3-(2,3-epoxypropoxy)propyl] trimethoxysilane	0.0082	0.0011				
polyethylenepolyamines, triethylenetetramine fraction	0.0026	0.00035	OECD 104			
4,4'-(1-methylethylidene) bisphenol polymer with (chloromethyl)oxirane	<0	<0	EU A.4			
propylidynetrimethanol	0	0				
29H,31H-phthalocyaninato(2-)-N29,N30,N31,N32 copper	0	0	EU A.4			

L. Solubility(ies) :

Media	Result
cold water	Not soluble [OESO (TG 105)]

Solubility in water : Not available.

M. Vapor density :

N. Density : 1.397 g/cm³ [DIN EN ISO 2811-1]

O. Partition coefficient: n-octanol/water : Not applicable.

P. Auto-ignition temperature :

Section 9. Physical and chemical properties

Ingredient name	°C	°F	Method
8,18-dichloro-5,15-diethyl-5,15-dihydrodiindolo[3,2-b:3',2'-m]triphenodioxazine	250	482	
butan-1-ol	355	671	EU A.15
29H,31H-phthalocyaninato(2-)-N29,N30,N31,N32 copper	356	672.8	EU A.16
butan-2-ol	377	710.6	
[3-(2,3-epoxypropoxy)propyl]trimethoxysilane	400	752	DIN 51794
nitroethane	414	777.2	

- Q. Decomposition temperature** : Not available.
- R. Viscosity** : Kinematic (room temperature): 394 mm²/s (394 cSt) [DIN EN ISO 3219]
Kinematic (40°C (104°F)): 101 mm²/s (101 cSt) [DIN EN ISO 3219]
- S. Molecular weight** : Not applicable.

Particle characteristics

Median particle size : Not applicable.

Section 10. Stability and reactivity

- A. Chemical stability** : The product is stable.
- Possibility of hazardous reactions** : Under normal conditions of storage and use, hazardous reactions will not occur.
- B. Conditions to avoid** : Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition.
- C. Incompatible materials** : Reactive or incompatible with the following materials:
oxidizing materials
metals
- D. Hazardous decomposition products** : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

- A. Information on the likely routes of exposure** : Not available.
- Potential acute health effects**
- Inhalation** : No known significant effects or critical hazards.
- Ingestion** : Harmful if swallowed.
- Skin contact** : Causes severe burns. May cause an allergic skin reaction.
- Eye contact** : Causes serious eye damage.
- Over-exposure signs/symptoms**
- Inhalation** : Adverse symptoms may include the following:
reduced fetal weight
increase in fetal deaths
skeletal malformations
- Ingestion** : Adverse symptoms may include the following:
stomach pains
reduced fetal weight
increase in fetal deaths
skeletal malformations

Section 11. Toxicological information

- Skin contact** : Adverse symptoms may include the following:
 pain or irritation
 redness
 blistering may occur
 reduced fetal weight
 increase in fetal deaths
 skeletal malformations
- Eye contact** : Adverse symptoms may include the following:
 pain
 watering
 redness

B. Health hazards

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
butan-2-ol	LC50 Inhalation Gas.	Rat	8000 ppm	4 hours
	LC50 Inhalation Vapor	Rat	48500 mg/m ³	4 hours
	LD50 Intraperitoneal	Guinea pig	1067 mg/kg	-
	LD50 Intraperitoneal	Mouse	771 mg/kg	-
	LD50 Intraperitoneal	Rabbit	277 mg/kg	-
	LD50 Intraperitoneal	Rat	1193 mg/kg	-
	LD50 Intravenous	Mouse	764 mg/kg	-
	LD50 Intravenous	Rat	138 mg/kg	-
	LD50 Oral	Rabbit	4893 mg/kg	-
	LD50 Oral	Rabbit	4890 mg/kg	-
strontium chromate	LD50 Oral	Rat	2193 mg/kg	-
	LD50 Oral	Rat	2054 mg/kg	-
nitroethane	LC50 Inhalation Dusts and mists	Rat	0.27 mg/l	4 hours
	LD50 Intratracheal	Rat	16.6 mg/kg	-
	LD50 Oral	Rat	3118 mg/kg	-
zinc oxide	LD50 Intraperitoneal	Mouse	310 mg/kg	-
	LD50 Oral	Mouse	860 mg/kg	-
zinc oxide	LD50 Oral	Rat	1100 mg/kg	-
	LD50 Intraperitoneal	Rat	240 mg/kg	-
	LD50 Oral	Mouse	7950 mg/kg	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
butan-2-ol reaction product: bisphenol-A-(epichlorhydrin); epoxy resin	Eyes - Severe irritant	Rabbit	-	0.1 MI	-
	Eyes - Mild irritant	Rabbit	-	100 mg	-
	Skin - Moderate irritant	Rabbit	-	24 hours 500 UI	-
	Skin - Severe irritant	Rabbit	-	24 hours 2 mg	-
zinc oxide	Eyes - Mild irritant	Rabbit	-	24 hours 500 mg	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 mg	-

Sensitization

Not available.

CMR - ISHA Article 42 Occupational Exposure Limits

Section 11. Toxicological information

Product/ingredient name	Identifiers	Classification
strontium chromate	CAS: 7789-06-2	CARCINOGENICITY - Category 1A
titanium dioxide	CAS: 13463-67-7	CARCINOGENICITY - Category 2
barium chromate	CAS: 10294-40-3	CARCINOGENICITY - Category 1A

Mutagenicity

Not available.

Carcinogenicity

Not available.

Classification

Product/ingredient name	OSHA	IARC	NTP	ACGIH
strontium chromate	+	1	Known to be a human carcinogen.	A2
titanium dioxide	-	2B	-	A4
Talc , not containing asbestiform fibres	-	3	-	A4
barium chromate	+	1	Known to be a human carcinogen.	A1

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
butan-2-ol	Category 3	-	Respiratory tract irritation
	Category 3		Narcotic effects

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Potential chronic health effects

Chronic toxicity

Not available.

- General** : Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.
- Carcinogenicity** : May cause cancer. Risk of cancer depends on duration and level of exposure.
- Mutagenicity** : Suspected of causing genetic defects.
- Reproductive toxicity** : May damage fertility or the unborn child.

Numerical measures of toxicity

Acute toxicity estimates

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapors) (mg/l)	Inhalation (dusts and mists) (mg/l)
2/21060500K-GRN-SBPR_P60-TUK	575.9	N/A	N/A	128.6	N/A
Strontium chromate	100	N/A	N/A	N/A	N/A
nitroethane	500	N/A	N/A	11	N/A

Section 12. Ecological information

A. Ecotoxicity

Product/ingredient name	Result	Species	Exposure
butan-2-ol	Acute EC50 4227 mg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 3670000 µg/l Fresh water	Fish - Pimephales promelas	96 hours
	Acute EC50 19.3 mg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute EC50 27.8 mg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute EC50 35.306 mg/l Fresh water	Daphnia - Daphnia magna - Neonate	48 hours
	Acute LC50 3 mg/l Fresh water	Crustaceans - Ceriodaphnia dubia - Neonate	48 hours
	Acute LC50 13.4 mg/l Fresh water	Crustaceans - Ceriodaphnia dubia - Neonate	48 hours
	Acute LC50 11 mg/l Fresh water	Crustaceans - Ceriodaphnia dubia - Neonate	48 hours
	Acute LC50 3.6 mg/l Fresh water	Crustaceans - Ceriodaphnia dubia - Neonate	48 hours
	Acute LC50 15.9 mg/l Fresh water	Crustaceans - Ceriodaphnia dubia - Neonate	48 hours
titanium dioxide	Acute LC50 6.5 mg/l Fresh water	Daphnia - Daphnia pulex - Neonate	48 hours
	Acute LC50 13 mg/l Fresh water	Daphnia - Daphnia pulex - Neonate	48 hours
	Acute LC50 >1000000 µg/l Marine water	Fish - Fundulus heteroclitus	96 hours
	Acute LC50 >1000 mg/l Fresh water	Fish - Pimephales promelas	96 hours
	Acute EC50 1 mg/l Fresh water	Daphnia - Daphnia magna - Neonate	48 hours
	Acute EC50 0.622 mg/l Fresh water	Daphnia - Daphnia magna - Neonate	48 hours
	Acute EC50 0.481 mg/l Fresh water	Daphnia - Daphnia magna - Neonate	48 hours
	Acute LC50 1.25 mg/l Fresh water	Daphnia - Daphnia magna - Neonate	48 hours
	Acute LC50 98 µg/l Fresh water	Daphnia - Daphnia magna - Neonate	48 hours
	Acute LC50 3.969 mg/l Fresh water	Fish - Danio rerio - Adult	96 hours
zinc oxide	Acute LC50 2.525 mg/l Fresh water	Fish - Danio rerio - Adult	96 hours
	Acute LC50 1.1 ppm Fresh water	Fish - Oncorhynchus mykiss	96 hours
	Acute LC50 2246000 µg/l Fresh water	Fish - Pimephales promelas - Neonate	96 hours

B. Persistence and degradability

Not available.

C. Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
butan-2-ol	0.61	-	low
reaction product: bisphenol-A-(epichlorhydrin); epoxy resin	2.64 to 3.78	31	low
nitroethane	0.18	-	low
Amines, polyethylenepoly-, triethylenetetramine fraction	-2.65	-	low
zinc oxide	-	28960	high

D. Mobility in soil

Date of issue/Date of revision : 8-3-2023 Version : 3.01

Date of previous issue : 7-12-2022

12/16

Section 12. Ecological information




Soil/water partition coefficient (K_{oc}) : Not available.

E. Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

- A. Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.
- B. Disposal precautions : This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

	UN	IMDG	IATA
A. UN number	UN3469	UN3469	UN3469
B. UN proper shipping name	PAINT, FLAMMABLE, CORROSIVE	PAINT, FLAMMABLE, CORROSIVE	PAINT, FLAMMABLE, CORROSIVE
C. Transport hazard class(es)	3 (8) 	3 (8) 	3 (8) 
D. Packing group	III	III	III
E. Environmental hazards	Yes. The environmentally hazardous substance mark is not required.	Marine Pollutant(s): strontium chromate, reaction product: bisphenol-A-(epichlorhydrin); epoxy resin	Yes. The environmentally hazardous substance mark is not required.

Additional information

IMDG : **Emergency schedules** F-E, S-C
The marine pollutant mark is not required when transported in sizes of ≤ 5 L or ≤ 5 kg.
IMDG Code Segregation group Not applicable

IATA : The environmentally hazardous substance mark may appear if required by other transportation regulations.

F. Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Transport in bulk according to IMO instruments : Not available.

Section 15. Regulatory information

A. Regulation according to ISHA

ISHA article 117 (Harmful substances prohibited from manufacture) : None of the components are listed.

ISHA article 118 (Harmful substances requiring permission) : None of the components are listed.

Article 2 of Youth Protection Act on Substances Hazardous to Youth : Not applicable.

Exposure Limits of Chemical Substances and Physical Factors

The following components have an OEL:

butan-2-ol
strontium chromate
nitroethane
barium chromate

ISHA Enforcement Regs Annex 19 (Exposure standards established for harmful factors) : The following components are listed: chromium VI compounds, water-soluble, chromium VI compounds insoluble

ISHA Enforcement Regs Annex 21 (Harmful factors subject to Work Environment Measurement) : The following components are listed: 2-butanol, chromium and its inorganic compounds, titanium dioxide, talc / soapstone

ISHA Enforcement Regs Annex 22 (Harmful Factors Subject to Special Health Check-up) : The following components are listed: 2-Butanol, Chromium and its compounds

Standard of Industrial Safety and Health Annex 12 (Hazardous substances subject to control) : The following components are listed: 2-butanol, chromium and its compounds (hexavalent chromium compounds only), titanium dioxide, chromium and its compounds (hexavalent chromium compounds only)

B. Regulation according to Chemicals Control Act

Article 11 (TRI) : The following components are listed: Chromium and its compounds, 4,4'-(1-Methylethylidene) bisphenol polymer with (chloromethyl)oxirane

Article 18 Prohibited (K-Reach Article 27) : None of the components are listed.

Article 19 Subject to authorization (K-Reach Article 25) : None of the components are listed.

Article 20 Toxic Chemicals (K-Reach Article 20) : Toxic

Article 20 Restricted (K-Reach Article 27) : The following components are listed: chromium(6+) compounds, chromium(6+) compounds

Article 39 (Accident Precaution Chemicals) : The following components are listed: Strontium chromate, chromium(6+) compounds

Section 15. Regulatory information

- Existing Chemical Substances Subject to Registration** : The following components are listed: Strontium chromate, 4,4'-(1-Methylethylidene) bisphenol polymer with (chloromethyl)oxirane, Zinc oxide, Barium chromate, Quartz
- C. Dangerous Materials Safety Management Act** : **Class:** Class 4 - Flammable Liquid
Item: 4. Class 2 petroleums - Water-insoluble liquid
Threshold: 1000 L
Danger category: III
Signal word: Contact with sources of ignition prohibited
- D. Wastes regulation** : Dispose of contents and container in accordance with all local, regional, national and international regulations.
- E. Regulation according to other foreign laws**
- International regulations**
- Chemical Weapon Convention List Schedules I, II & III Chemicals**
 Not listed.
- Montreal Protocol**
 Not listed.
- Stockholm Convention on Persistent Organic Pollutants**
 Not listed.
- Rotterdam Convention on Prior Informed Consent (PIC)**
 Not listed.
- UNECE Aarhus Protocol on POPs and Heavy Metals**
 Not listed.

Section 16. Other information

- A. References** : - Registry of Toxic Effects of Chemical Substances
 - United States Environmental Protection Agency ECOTOX
- B. Date of issue/Date of revision** : 8 March 2023
- C. Version** : 3.01
Unique ID :
Date of printing : 8 March 2023

D. Other

☑ Indicates information that has changed from previously issued version.

- Key to abbreviations** : ATE = Acute Toxicity Estimate
 BCF = Bioconcentration Factor
 GHS = Globally Harmonized System of Classification and Labelling of Chemicals
 IATA = International Air Transport Association
 IBC = Intermediate Bulk Container
 IMDG = International Maritime Dangerous Goods
 LogPow = logarithm of the octanol/water partition coefficient
 MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
 N/A = Not available
 SGG = Segregation Group
 UN = United Nations

Notice to reader

Section 16. Other information

FOR PROFESSIONAL USE ONLY

IMPORTANT NOTE The information in this data sheet is not intended to be exhaustive and is based on the present state of our knowledge and on current laws: any person using the product for any purpose other than that specifically recommended in the technical data sheet without first obtaining written confirmation from us as to the suitability of the product for the intended purpose does so at his own risk. It is always the responsibility of the user to take all necessary steps to fulfill the demands set out in the local rules and legislation. Always read the Material Data Sheet and the Technical Data Sheet for this product if available. All advice we give or any statement made about the product by us (whether in this data sheet or otherwise) is correct to the best of our knowledge but we have no control over the quality or the condition of the substrate or the many factors affecting the use and application of the product. Therefore, unless we specifically agree in writing otherwise, we do not accept any liability whatsoever for the performance of the product or for any loss or damage arising out of the use of the product. All products supplied and technical advice given are subject to our standard terms and conditions of sale. You should request a copy of this document and review it carefully. The information contained in this data sheet is subject to modification from time to time in the light of experience and our policy of continuous development. It is the user's responsibility to verify that this data sheet is current prior to using the product.

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