

## SAFETY DATA SHEET

P 60-A TUK PALE GREEN

# SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Product name : P 60-A TUK PALE GREEN

**SDS code** : 21060500K

### 1.2 Relevant identified uses of the substance or mixture and uses advised against

#### Identified uses

Use at industrial site - Application of primers and specialty coatings in the construction of aerospace and aeronautical parts, including aeroplanes/helicopters, spacecraft, satellites, launchers, engines, and for the maintenance of such constructions for the aerospace sector in which any of the following key functionalities is required: corrosion resistance, adhesion of paint/ compatibility with binder system, layer thickness, chemical resistance, temperature resistance (thermal shock resistance), compatibility with substrate or processing temperatures.

### Uses advised against

All other uses

**Product use** : Two component coating for interior use.

### 1.3 Details of the supplier of the safety data sheet

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

e-mail address of person

: PSRA\_PAMIERS@akzonobel.com

responsible for this SDS

### 1.4 Emergency telephone number

#### National advisory body/Poison Center

Telephone number : 112

**Supplier** 

**Telephone number** : +33 (0)5 34 01 34 01

+33 (0)5 61 60 23 30

Hours of operation :

P 60-A TUK PALE GREEN

### **SECTION 2: Hazards identification**

### 2.1 Classification of the substance or mixture

Product definition : Mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Flam. Liq. 3, H226 Acute Tox. 4, H302 Acute Tox. 4, H332 Skin Corr. 1C, H314 Skin Sens. 1, H317 Muta. 1B, H340 Carc. 1A, H350 Repr. 1B, H360 STOT SE 3, H335 Aquatic Chronic 2, H411

The product is classified as hazardous according to Regulation (EC) 1272/2008 as amended.

See Section 16 for the full text of the H statements declared above.

See Section 11 for more detailed information on health effects and symptoms.

#### 2.2 Label elements

Hazard pictograms











Signal word : Danger

Hazard statements : Flammable liquid and vapor.

Harmful if swallowed or if inhaled.

Causes severe skin burns and eye damage.

May cause an allergic skin reaction.
May cause respiratory irritation.
May cause genetic defects.

May cause cancer.

May damage fertility or the unborn child. Toxic to aquatic life with long lasting effects.

### Precautionary statements

Storage

**Prevention**: Obtain special instructions before use. Wear protective gloves, protective clothing

and eye or face protection. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Avoid release to the environment. Avoid breathing vapor. Do not eat, drink or smoke when using this product. Wash

hands thoroughly after handling.

**Response**: Collect spillage. IF exposed or concerned: Get medical advice or attention. IF

INHALED: Immediately call a POISON CENTER or doctor. IF SWALLOWED: Immediately call a POISON CENTER or doctor. Rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. Immediately call a POISON CENTER or doctor. Wash contaminated clothing before reuse. IF ON SKIN: Wash with plenty of water. If skin irritation or rash occurs: Get medical advice or attention. 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.

: Store in a well-ventilated place. Keep container tightly closed. Keep cool.

Disposal : Dispose of contents and container in accordance with all local, regional, national

and international regulations.

Date of issue/Date of revision : 8-3-2023 Version : 4

Date of previous issue :7-12-2022 2/23 AkzoNobel

P 60-A TUK PALE GREEN

### SECTION 2: Hazards identification

Hazardous ingredients

butan-2-ol

strontium chromate

reaction product: bisphenol-A-(epichlorhydrin); epoxy resin

nitroethane

1,3-Propanediol, 2-ethyl-2-(hydroxymethyl)-, polymer with 2-(chloromethyl)oxirane

Amines, polyethylenepoly-, triethylenetetramine fraction

barium chromate

Supplemental label

elements

: Contains epoxy constituents. May produce an allergic reaction. Warning!

Hazardous respirable droplets may be formed when sprayed. Do not breathe spray

or mist.

**REACH Authorization** 

number

: REACH/20/7/5, REACH/20/7/15

**Annex XVII - Restrictions** on the manufacture. placing on the market and use of certain dangerous substances, mixtures and

: Restricted to professional users.

articles

### **Special packaging requirements**

Containers to be fitted with child-resistant

fastenings

: Not applicable.

Tactile warning of danger: Not applicable.

2.3 Other hazards

Product meets the criteria for PBT or vPvB according

to Regulation (EC) No. 1907/2006, Annex XIII

: This mixture does not contain any substances that are assessed to be a PBT or a

vPvB.

Other hazards which do

: None known.

not result in classification

The mixture may be a skin sensitizer. It may also be a skin irritant and repeated contact may increase this effect.

## **SECTION 3: Composition/information on ingredients**

#### 3.2 Mixtures : Mixture

Product/ingredient name	Identifiers	%	Classification	Specific Conc. Limits, M-factors and ATEs	Туре
<b>b</b> utan-2-ol	REACH #: 01-2119475146-36 EC: 201-158-5 CAS: 78-92-2	≥15 - ≤20	Flam. Liq. 3, H226 Eye Irrit. 2, H319 STOT SE 3, H335 STOT SE 3, H336	-	[1] [2]
strontium chromate	REACH #: 01-2119548391-39 EC: 232-142-6 CAS: 7789-06-2	≥15 - ≤20	Acute Tox. 4, H302 Acute Tox. 2, H330 Skin Sens. 1, H317 Muta. 2, H341 Carc. 1A, H350 Repr. 2, H361 STOT SE 3, H335 Aquatic Acute 1, H400 Aquatic Chronic 1,	ATE [Oral] = 500 mg/kg ATE [Inhalation (dusts and mists)] = 0.27 mg/l M [Acute] = 1 M [Chronic] = 1	[1] [2]
reaction product: bisphenol-	REACH #:	≥10 - ≤15	Skin Irrit. 2, H315	Skin Irrit. 2, H315:	[1]

Date of issue/Date of revision : 8-3-2023 Version: 4

**AkzoNobel** Date of previous issue :7-12-2022 3/23

P 60-A TUK PALE GREEN

#### SECTION 3: Composition/information on ingredients <u>C</u> ≥ 5% 01-2119456619-26 A-(epichlorhydrin); epoxy Eye Irrit. 2, H319 EC: 500-033-5 Skin Sens. 1, H317 Eye Irrit. 2, H319: resin CAS: 25068-38-6 Aquatic Chronic 2, C ≥ 5% Index: 603-074-00-8 H411 ≥5 - ≤10 ATE [Oral] = 500 nitroethane REACH #: Flam. Liq. 3, H226 [1] [2] 01-2119966158-27 Acute Tox. 4, H302 mg/kg EC: 201-188-9 Acute Tox. 4, H332 ATE [Inhalation CAS: 79-24-3 Repr. 2, H361 (vapours)] = 11 mg/ (inhalation) Aquatic Chronic 3, H412 1,3-Propanediol, 2-ethyl-2-REACH #: ≥5 - ≤10 Skin Corr. 1C. H314 [1] (hydroxymethyl)-, polymer 01-2120078341-60 Skin Sens. 1B, H317 with 2-(chloromethyl)oxirane CAS: 30499-70-8 Muta. 2, H341 (oral) Repr. 1B, H360 (oral) Aquatic Chronic 2, H411 Amines, polyethylenepoly-, EC: 292-588-2 ≥1 - ≤3 Acute Tox. 4, H302 ATE [Oral] = 500 [1] triethylenetetramine fraction CAS: 90640-67-8 Acute Tox. 4, H312 mg/kg ATE [Dermal] = Skin Corr. 1B. H314 Skin Sens. 1. H317 1100 mg/kg Aquatic Chronic 3, H412 zinc oxide REACH #: Aguatic Acute 1, H400 M [Acute] = 1 ≤1 [1] 01-2119463881-32 Aquatic Chronic 1. M [Chronic] = 1H410 EC: 215-222-5 CAS: 1314-13-2 Index: 030-013-00-7 barium chromate REACH #: ≤1 Acute Tox. 3, H301 ATE [Oral] = 100 [1] [2] 01-2120769889-24 Acute Tox. 3, H311 mg/kg EC: 233-660-5 Acute Tox. 2, H330 ATE [Dermal] = CAS: 10294-40-3 Resp. Sens. 1, H334 300 mg/kg Skin Sens. 1, H317 ATE [Inhalation Muta. 1B, H340 (dusts and mists)] Carc. 1A, H350 $= 0.05 \, \text{mg/l}$ Repr. 2, H361 STOT RE 1, H372: **STOT RE 1, H372** C ≥ 10% STOT RE 2, H373: (kidneys, respiratory $1\% \le C < 10\%$ tract) See Section 16 for the full text of the H statements declared

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, are PBTs, vPvBs or Substances of equivalent concern, or have been assigned a workplace exposure limit and hence require reporting in this section. Type

above.

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

Date of issue/Date of revision : 8-3-2023 Version: 4 **AkzoNobel** Date of previous issue :7-12-2022 4/23

P 60-A TUK PALE GREEN

### **SECTION 4: First aid measures**

### 4.1 Description of first aid measures

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.

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.

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.

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.

### **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.

#### 4.2 Most important symptoms and effects, both acute and delayed

There are no data available on the mixture itself. The mixture has been assessed following the conventional method of the CLP Regulation (EC) No 1272/2008 and is classified for toxicological properties accordingly. See Sections 2 and 3 for details.

Exposure to component solvent vapor concentrations in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and, in extreme cases, loss of consciousness.

Solvents may cause some of the above effects by absorption through the skin. Repeated or prolonged contact with the mixture may cause removal of natural fat from the skin, resulting in non-allergic contact dermatitis and absorption through the skin.

If splashed in the eyes, the liquid may cause irritation and reversible damage.

Ingestion may cause nausea, diarrhea and vomiting.

This takes into account, where known, delayed and immediate effects and also chronic effects of components from short-term and long-term exposure by oral, inhalation and dermal routes of exposure and eye contact.

Based on the properties of the epoxy constituent(s) and considering toxicological data on similar mixtures, this mixture may be a skin sensitizer and an irritant. It contains low-molecular weight epoxy constituents which are irritating to eyes, mucous membranes and skin. Repeated skin contact may lead to irritation and to sensitization,

Date of issue/Date of revision: 8-3-2023Version: 4Date of previous issue: 7-12-20225/23

AkzoNobel

P 60-A TUK PALE GREEN

### **SECTION 4: First aid measures**

possibly with cross-sensitization to other epoxies. Skin contact with the mixture and exposure to spray, mist and vapors should be avoided.

Contains strontium chromate, reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight ≤ 700), 1,3-Propanediol, 2-ethyl-2-(hydroxymethyl)-, polymer with 2-(chloromethyl)oxirane, Amines, polyethylenepoly-, triethylenetetramine fraction, barium salts. May produce an allergic reaction.

### Over-exposure signs/symptoms

**Eye contact**: Adverse symptoms may include the following:

pain watering redness

**Inhalation** : Adverse symptoms may include the following:

respiratory tract irritation

coughing

reduced fetal weight increase in fetal deaths skeletal malformations

**Skin contact**: Adverse symptoms may include the following:

pain or irritation

redness

blistering may occur 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

### 4.3 Indication of any immediate medical attention and special treatment needed

**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.

### SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing

media

: Use dry chemical, CO<sub>2</sub>, water spray (fog) or foam.

Unsuitable extinguishing

media

: Do not use water jet.

### 5.2 Special hazards arising from the substance or mixture

Hazards from the substance or mixture

: 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 combustion

products

: Decomposition products may include the following materials:

carbon dioxide carbon monoxide nitrogen oxides

halogenated compounds metal oxide/oxides

Date of issue/Date of revision : 8-3-2023 Version : 4

Date of previous issue :7-12-2022 6/23 AkzoNobel

P 60-A TUK PALE GREEN

### **SECTION 5: Firefighting measures**

### 5.3 Advice for firefighters

Special protective actions 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.

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. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

### **SECTION 6: Accidental release measures**

### 6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

: 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.

For emergency responders: If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

### 6.2 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.

### 6.3 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. 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. 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 noncombustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product.

### 6.4 Reference to other sections

: See Section 1 for emergency contact information. See Section 8 for information on appropriate personal protective equipment. See Section 13 for additional waste treatment information.

## **SECTION 7: Handling and storage**

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

#### 7.1 Precautions for safe handling

Date of issue/Date of revision : 8-3-2023 Version: 4 **AkzoNobel** Date of previous issue : 7-12-2022 7/23

P 60-A TUK PALE GREEN

### **SECTION 7: Handling and storage**

### **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.

## 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.

### 7.2 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 locked up. Eliminate all ignition sources. Separate from oxidizing materials. 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.

### Seveso Directive - Reporting thresholds

### **Danger criteria**

Category	Notification and MAPP threshold	Safety report threshold
P5c	5000 tonne	50000 tonne
E2	200 tonne	500 tonne

### 7.3 Specific end use(s)

Recommendations : Not available.

Industrial sector specific : Not available.

solutions

## **SECTION 8: Exposure controls/personal protection**

The information in this section contains generic advice and guidance. Information is provided based on typical anticipated uses of the product. Additional measures might be required for bulk handling or other uses that could significantly increase worker exposure or environmental releases.

#### 8.1 Control parameters

### Occupational exposure limits

Product/ingredient name	Exposure limit values
outan-2-ol	Work environment authority Regulation 2018:1 (Sweden, 9/2021). Absorbed through skin.
	STEL: 250 mg/m³ 15 minutes. STEL: 75 ppm 15 minutes. TWA: 150 mg/m³ 8 hours. TWA: 50 ppm 8 hours.
strontium chromate	Work environment authority Regulation 2018:1 (Sweden, 9/2021). [chromium(VI)-compounds] Skin sensitizer. Notes: as

Date of issue/Date of revision: 8-3-2023Version: 4Date of previous issue: 7-12-20228/23AkzoNobel

P 60-A TUK PALE GREEN

### **SECTION 8: Exposure controls/personal protection**

Cr
STEL: 0.015 mg/m³, (as Cr) 15 minutes. Form: inhalable fraction
TWA: 0.005 mg/m³, (as Cr) 8 hours. Form: inhalable fraction
Work environment authority Regulation 2018:1 (Sweden,
9/2021). Absorbed through skin.
STEL: 150 mg/m³ 15 minutes.
STEL: 50 ppm 15 minutes.
TWA: 62 mg/m³ 8 hours.
TWA: 20 ppm 8 hours.

Work environment authority Regulation 2018:1 (Sweden,
9/2021). [chromium(VI)-compounds] Skin sensitizer. Notes: as
Cr
STEL: 0.015 mg/m³, (as Cr) 15 minutes. Form: inhalable fraction
TWA: 0.005 mg/m³, (as Cr) 8 hours. Form: inhalable fraction

## Recommended monitoring procedures

: If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

### **DNELs/DMELs**

Product/ingredient name	Type	Exposure	Value	Population	Effects
<b>b</b> utan-2-ol	DNEL	Long term Oral	15 mg/kg	General	Systemic
	DNEL	Long term Dermal	bw/day 203 mg/kg bw/day	population General population	Systemic
	DNEL	Long term Inhalation	213 mg/m <sup>3</sup>	General population	Systemic
	DNEL	Long term Dermal	405 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	600 mg/m <sup>3</sup>	Workers	Systemic
strontium chromate	DNEL	Long term Dermal	0.0002 mg/ cm <sup>2</sup>	Workers	Local
	DMEL	Long term Inhalation	0.5 μg/m³	Workers	Local
reaction product: bisphenol-A- (epichlorhydrin); epoxy resin	DNEL	Short term Inhalation	0.75 mg/ kg bw/day	General population [Consumers]	Systemic
	DNEL	Long term Inhalation	0.75 mg/m <sup>3</sup>	General population [Consumers]	Systemic
nitroethane	DNEL	Long term Inhalation	2 mg/m³	General population	Systemic
	DNEL	Long term Inhalation	5 mg/m³	General population	Local
	DNEL	Short term Inhalation	5 mg/m³	General population	Systemic
	DNEL	Long term Inhalation	8.4 mg/m³	Workers	Systemic
	DNEL	Short term	15 mg/m³	General	Local

Date of issue/Date of revision: 8-3-2023Version: 4Date of previous issue: 7-12-20229/23

AkzoNobel

P 60-A TUK PALE GREEN

## **SECTION 8: Exposure controls/personal protection**

DNEL Inhalation DNEL Ong term Inhalation DNEL Ong term On	ECTION 6. Exposure cont	1015/h	ersonal prote	Ction		
DNEL Long term   17 mg/m²   Workers   Local   Inhalation   DNEL Long term   17 mg/m²   Workers   Local   Inhalation   DNEL Long term   17 mg/m²   Workers   Local   Inhalation   DNEL Long term   1250 mg/m²   Workers   Systemic   DNEL Long term   Dnemal DNEL   Long term   Dnemal DNEL Long term   Dnemal DNEL   Long term   Dnemal			Inhalation		population	
DNEL		DNEL		17 ma/m³		Systemic
DNEL Long term   25 mg/m³   Workers   Local		J.,				Cycleniic
Inhalation   DNEL   DNEL   Long term Dermal   DNEL   Long term   DNEL   Lo		DNEI		25 ma/m3	Markoro	Local
DNEL   DNEL   Cong term Dermal   DNEL   Cong term Dermal   DNEL   Cong term Dermal   DNEL   Cong term Dermal   DNEL   DNEL   DNEL   Cong term Dermal   DNEL   Cong term Dermal   DNEL   Cong term Dermal   DNEL   Cong term Dermal   DNEL   D		DINEL		∠5 mg/m²	VVOIKEIS	Lucai
Inhalation DNEL Long term Dermal JNEL Long term Jnhalation DNEL Jnha Morkers Systemic DNEL Jnha Morkers Sy						
DNEL   Long term Dermal   210 mg/kg bw/day   350 mg/kg bw/day   350 mg/kg bw/day   2100 mg/ kg bw/day   2100 mg/		DNEL	Short term	50 mg/m³	Workers	Local
DNEL Long term Dermal Systemic			Inhalation			
DNEL Long term Dermal Systemic		DNEL	Long term Dermal	210 ma/ka	General	Systemic
DNEL   Long term Dermal   Short term Dermal   Short term Dermal   Short term Dermal   1,3-Propanediol, 2-ethyl-2- (hydroxymethyl)-, polymer with 2- (chloromethyl)oxirane   DNEL   Long term Dermal   Long term Dermal DNEL   Long term DNEL Dong term DNEL DNG term DNG term DNG term DNG term DNG term DNG term DNG						-,
DNEL DNEL Chloromethyl)-, polymer with 2- (chloromethyl)- polymer all polymelation		DNEI	Long term Dermal			Systemic
DNEL   Short term Dermal   1250 mg/ kg bw/day   DNEL   Short term Dermal   120 mg/ kg bw/day   DNEL   DNEL   Long term Dermal   DNEL   Long term   DNEL   Long term   DNEL   Long term   DNEL		DINLL	Long term Dermai	0 0	WOINGIS	Systernic
DNEL (hydroxymethyl)-, polymer with 2-(chloromethyl)oxirane  DNEL (hydroxymethyl)-, polymer with 2-(chloromethyl)oxirane  DNEL Amines, polyethylenepoly-, triethylenetetramine fraction  DNEL Long term (Long term Oral Inhalation) DNEL Long term (Inhalation) DNEL Short term (Inhalation) DNEL Shor		D. 151				
1,3-Propanediol, 2-ethyl-2- (hydroxymethyl)-, polymer with 2- (chloromethyl)oxirane  DNEL Amines, polyethylenepoly-, triethylenetetramine fraction  DNEL DNEL DNEL DNEL DNEL DNEL Dny		DNEL	Short term Dermal			Systemic
1,3-Propanediol, 2-ethyl-2-(hydroxymethyl)-, polymer with 2-(chloromethyl)oxirane						
1,3-Propanediol, 2-ethyl-2-(hydroxymethyl)-, polymer with 2-(chloromethyl)oxirane		DNEL	Short term Dermal	2100 mg/	Workers	Systemic
1.3-Propanediol, 2-ethyl-2- (hydroxymethyl)-, polymer with 2- (chloromethyl)oxirane  DNEL Cong term Dermal Die by triethylenetetramine fraction  DNEL Cong term Oral Die by Inhalation DNEL Cong term Oral DNEL Cong term Dermal DNEL Cong term DNEL Cong term Dermal DNEL Cong term DNEL						•
(hydroxymethyl)-, polymer with 2- (chloromethyl)oxirane  DNEL Long term Inhalation DNEL Long term On DNEL Long term Dermal DNEL Long term DNEL Long term DNEL DNE DNEL Long term DNEM DNEL Long term DNEL DNE DNEL Long term DNEL DNE DNEL Long term DNE DNEL Long term DNE DNEL Long term DNE	1 3-Propagediol 2-ethyl-2-	DNEI	Long term Dermal		Workers	Systemic
Chloromethyl)oxirane		DIVLL	Long term Dermai		WOIKEIS	Cysternic
Amines, polyethylenepoly-, triethylenetetramine fraction  DNEL Long term Inhalation DNEL Long term Oral Long term Inhalation DNEL Long term Dermal DNEL Long term Inhalation DNEL Long term Dermal				kg bw/day		
Amines, polyethylenepoly-, triethylenetetramine fraction  DNEL long term (Inhalation DNEL Long term Oral DNEL Long term Dermal Inhalation DNEL Long term Dermal DNEL Long term DNEL DNEL DNEL DNEL DNEL DNEL DNEL DNEL	(chloromethyl)oxirane					
Amines, polyethylenepoly-triethylenetetramine fraction  DNEL   Long term   0.096 mg/ m³   General population   Systemic   Systemic population   Systemic   Systemic   Systemic   Systemic population		DNEL		1.17 mg/m <sup>3</sup>	Workers	Systemic
Amines, polyethylenepoly-, triethylenetetramine fraction  DNEL   Long term   0.096 mg/ m³   General   population   Systemic   Mg bw/day   DNEL   Long term   0.54 mg/m³   Workers   Systemic   Systemi			Inhalation			
triethylenetetramine fraction  DNEL   Inhalation   Long term   O.14 mg/s   byw/day   Doubletion   DNEL   Long term   Inhalation   DNEL   Long term   O.5 mg/m³   Workers   Systemic   DNEL   Long term   O.5 mg/m³   Workers   Local   DNEL   Long term   O.83 mg/kg   bw/day   DNEL   Long term   DNEL   DNEL   Long term   D.01 mg/m³   General   Dopulation   DNEL   Long term   D.01 mg/m³   General   Dopulation   DNEL   DNEL   Long term   D.01 mg/m³   General   Dopulation   DNEL   DNEL   Long term	Amines, polyethylenepoly	DNEL	Long term	0.096 mg/	General	Systemic
DNEL Long term Oral DNEL Long term Oral Inhalation DNEL Long term Dermal DNEL Long term Dermal DNEL Long term Dermal DNEL Long term DOPULATION DNEL LONG TERM DNEL						, · · · · · ·
DNEL Long term Inhalation Long term Inhalation DNEL Long term Oral Long term Inhalation DNEL Long term Oral Long term Inhalation DNEL Long term Dermal Inhalation DNEL Long term Dermal DNEL Long term Dermal DNEL Long term Inhalation DNEL Long term Dormal DNEL Long term Dormal DNEL Long term D	anothyronototranimo maddon	DNEI				Systemic
zinc oxide    DNEL   Long term   Inhalation   DNEL   Long term   Inhalation   Long term   Inhalation   DNEL   Long term   Dermal   Long term   Domestian   DNEL   Long term   Dermal   Say mg/kg   bw/day   Barium chromate    DNEL   Short term   Domestian   DNEL   Long term   Systemic   Sys		DINEL	Long term Oral	•		Systemic
zinc oxide    DNEL   Long term						
DNEL   Long term		DNEL		0.54 mg/m <sup>3</sup>	Workers	Systemic
Inhalation   Long term Oral   DNEL   Long term   DNEL   Systemic   Syste			Inhalation			
Inhalation   Long term Oral   DNEL   Long term   DNEL   Systemic   Syste	zinc oxide	DNEL	Long term	$0.5 \text{ mg/m}^3$	Workers	Local
DNEL Long term Oral				<b>.</b>		
DNEL Long term Dermal DNEL Long term Dermal DNEL Long term Inhalation DNEL Long term Dermal DNEL Short term Inhalation DNEL Long term Dnemal Dnemal Dnemal Systemic Systemic Systemic Systemic Dnemal Systemic Systemic Systemic Systemic Systemic Dnemal Systemic Systemi		DNE		0.83 mg/	General	Systemic
DNEL Long term Inhalation DNEL Long term Dermal DNEL Short term Inhalation DMEL Short term Inhalation DMEL Long term Dermal DNEL Short term Inhalation DMEL Long term Dermal DNEL Short term Inhalation DMEL Long term Dermal DNEL Short term Inhalation DMEL Long term Inhalation DNEL Short term Inhalation DNEL Short term Inhalation DNEL Short term Inhalation DNEL Long term Dermal I7.1 mg/ General Systemic		DINEL	Long will Olal			Cystellic
Inhalation DNEL DNEL DNEL DNEL DNEL DNEL DNEL DNEL		DAIT	1 4			0
DNEL Long term Inhalation DNEL Long term Dermal  DNEL Long term Dermal  DNEL Long term Dermal  DNEL Long term Dermal  DNEL Short term Inhalation DMEL Long term Dermal  DNEL Short term 0.01 mg/m³ Inhalation DNEL Short term 0.01 mg/m³ Inhalation DNEL Long term 0.01 mg/m³ Workers  DNEL Long term 0.01 mg/m³ Workers  Systemic  Systemic  Systemic  Systemic  Double Long term 0.01 mg/m³ Workers  DNEL Long term 0.01 mg/m³ Workers  Local  DNEL Long term 1.7 mg/m³ General population DNEL Long term 1.7 mg/m³ General population DNEL Long term 0.01 mg/m³ Workers  Local  DNEL Long term 1.7 mg/m³ General population DNEL Long term 0.01 mg/m³ Workers  DNEL Long term 1.7 mg/m³ General population DNEL Long term 0.01 mg/m³ Workers  DNEL Long term 0.01 mg/m³ Workers  DNEL Long term 0.01 mg/m³ Workers  Systemic  Systemic  Systemic  Systemic  Systemic  T.1 mg/ General Systemic		DNFL		2.5 mg/m <sup>3</sup>		Systemic
Inhalation   Long term Dermal   Systemic						
Inhalation   DNEL   Long term Dermal   Systemic   DNEL   Long term Dermal   Sa mg/kg   bw/day   Workers   Systemic   Systemic   DNEL   Short term   Inhalation   DNEL   Long term		DNEL	Long term	5 mg/m³	Workers	Systemic
DNEL Long term Dermal 83 mg/kg bw/day 83 mg/kg bw/day 90.01 mg/m³ General population 90.01 mg/m³ Workers 90.01 mg/m³ Hondalation 90.01 mg/m³ General population 90.01 mg/m³ General population 90.01 mg/m³ General population 90.01 mg/m³ General 90.01 mg/m³ General 90.01 mg/m³ General 90.01 mg/m³ General 90.01 mg/m³ Systemic 90.01 mg/m³ General 90.01 mg/m³ General 90.01 mg/m³ Systemic 90.01 mg/m³ Workers 90.01 mg/m³ General 90.01 mg/m³ Systemic 90.01 mg/m³ General 90.01 mg/m³ Systemic 90.01 mg/m³ Workers 90.01 mg/m³ General 90.01 mg/m³ Systemic 90.01 mg/m³ Workers 90.01 mg/m³ Systemic 90.01 mg/m³ Workers 90.01 mg/m³ Systemic 90.01 mg/m³ Workers 90.01 mg/m³ General 90.01 mg/m³ Systemic 90.01 mg/m³ Workers 90.01 mg/m³ Workers 90.01 mg/m³ Systemic 90.01 mg/m						_
barium chromate  DNEL Short term   Dermal Short term   Dermal Short term   Dermal Short term   Dermal Inhalation   Dermation		DNFI		83 ma/ka	General	Systemic
barium chromate  DNEL Short term   0.01 mg/m³   General   population   Cocal   Docal		J. 1LL	Long torri Dorrida			- you - 1110
barium chromate  DNEL Short term Inhalation DMEL Long term Unhalation DNEL Short term Unhalation DNEL Short term Unhalation DNEL Long term Unhalation DMEL Long term Unhalation DMEL Long term Unhalation DMEL Long term Unhalation DNEL Long term Oral DNEL Long term Unhalation DNEL Systemic		חארי	Languitanne Danie			Cuatamaia
barium chromate  DNEL Short term Inhalation DMEL Long term Inhalation DNEL Short term Inhalation DNEL Short term Inhalation DNEL Short term Inhalation DNEL Long term Inhalation DMEL Long term Inhalation DNEL Long term Inhalation DNEL Long term Inhalation DNEL Long term Oral DNEL Long term Oral DNEL Long term Oral DNEL Long term Inhalation DNEL Long term Dermal DNEL Short term Inhalation DNEL Long term Dermal DNEL Long term Dermal DNEL Short term Inhalation DNEL Long term Dermal DNEL Short term Inhalation DNEL Long term Dermal DNEL Short term Inhalation DNEL Short term		DNFL	Long term Dermal		vvorkers	Systemic
Inhalation DMEL Long term Inhalation DNEL Short term Inhalation DMEL Long term Inhalation DMEL Long term Inhalation DNEL Long term Inhalation DNEL Long term Inhalation DNEL Long term Inhalation DNEL Long term Oral DNEL Long term Inhalation DNEL Long term Oral DNEL Long term Inhalation DNEL Long term Dermal DNEL Systemic						
Inhalation DMEL Long term   0.01 mg/m³   General   population DNEL Short term   0.01 mg/m³   Workers   Local Inhalation DMEL Long term   0.01 mg/m³   Workers   Local Inhalation DNEL Long term   1.7 mg/m³   General   population DNEL Long term   1.7 mg/m³   General   population DNEL Long term   2.4 mg/kg   bw/day   population DNEL Long term   5.8 mg/m³   Workers   Systemic DNEL Long term   5.8 mg/m³   Workers   Systemic DNEL Long term   17.1 mg/ General   Systemic	barium chromate	DNEL	Short term	0.01 mg/m <sup>3</sup>	General	Local
DMEL Long term Inhalation DNEL Short term Inhalation DMEL Long term 0.01 mg/m³ General population Workers Local Workers Local Workers Local  Workers Systemic  1.7 mg/m³ General population Workers Local  1.7 mg/m³ General Systemic  DNEL Long term 0ral 2.4 mg/kg bw/day population DNEL Long term 0.01 mg/m³ General population  DNEL Long term 0.01 mg/m³ General Systemic  Systemic  DNEL Long term 5.8 mg/m³ Workers Systemic  DNEL Long term Dermal 17.1 mg/ General Systemic			Inhalation			
Inhalation DNEL Short term Inhalation DMEL Long term Inhalation DNEL Long term Inhalation DNEL Long term Inhalation DNEL Long term Oral DNEL Long term Oral DNEL Long term Inhalation DNEL Long term DNEL Long term Inhalation DNEL Long term Inhalation DNEL Long term Inhalation DNEL Long term Inhalation DNEL Long term Dermal DNEL Systemic DNEL Systemic		DMFI		0.01 ma/m <sup>3</sup>		Local
DNEL Short term   0.01 mg/m³ Workers   Local		vL		5.5 / mg/m		
Inhalation  DMEL Long term		ראבי		0.013		Local
DMEL Long term 0.01 mg/m³ Workers Local  DNEL Long term 1.7 mg/m³ General population  DNEL Long term Oral 2.4 mg/kg bw/day population  DNEL Long term 5.8 mg/m³ Workers Systemic  DNEL Long term 17.1 mg/ General Systemic  DNEL Long term 5.8 mg/m³ General Systemic		DINEL		o.or mg/m	vvoikeis	Local
Inhalation Long term Inhalation DNEL Long term Oral DNEL Long term Oral DNEL Long term DNEL Long term Inhalation DNEL Long term Inhalation DNEL Long term Inhalation DNEL Long term Dermal						
Inhalation Long term Inhalation DNEL Long term Oral DNEL Long term Oral DNEL Long term DNEL Long term Inhalation DNEL Long term Inhalation DNEL Long term Inhalation DNEL Long term Inhalation DNEL Long term Dermal DNEL Long term Inhalation DNEL Long term Dermal DNEL DNEL DNEL DNEL DNEL DNEL DNEL DNEL		DMEL	Long term	0.01 mg/m <sup>3</sup>	Workers	Local
DNEL Long term 1.7 mg/m³ General population  DNEL Long term Oral 2.4 mg/kg bw/day population  DNEL Long term 5.8 mg/m³ Workers Systemic  DNEL Long term 17.1 mg/ General Systemic  Systemic population  Systemic Systemic population  The long term Dermal 17.1 mg/ General Systemic			Inhalation			
Inhalation DNEL Long term Oral 2.4 mg/kg bw/day population DNEL Long term 5.8 mg/m³ Workers Systemic DNEL Long term Dermal 17.1 mg/ General Systemic Systemic Systemic Systemic		DNFI		1.7 ma/m³	General	Systemic
DNEL Long term Oral 2.4 mg/kg bw/day population  DNEL Long term 5.8 mg/m³ Workers Systemic  DNEL Long term Dermal 17.1 mg/ General Systemic  Systemic Systemic Systemic		J. 1LL		9/111		2,00011110
DNEL Long term 5.8 mg/m³ DNEL Systemic Systemic  DNEL Long term Dermal 17.1 mg/ General Systemic		ראבי		2.4 ma/ka		Systemic
DNEL Long term 5.8 mg/m³ Workers Systemic Inhalation DNEL Long term Dermal 17.1 mg/ General Systemic		DINEL	Long term Oral			Systemic
Inhalation DNEL Long term Dermal 17.1 mg/ General Systemic						_
Inhalation   DNEL   Long term Dermal   17.1 mg/   General   Systemic		DNEL	Long term	5.8 mg/m <sup>3</sup>	Workers	Systemic
DNEL Long term Dermal 17.1 mg/ General Systemic			Inhalation			
		DNFI		17.1 ma/	General	Systemic
TRU DANGER TOURINGHUM	1					- , 5:5:11115
				ka hw/dav	nonulation	
		DNE	Long torm Dormal	kg bw/day		Systemia
kg bw/day		DNEL	Long term Dermal	28.5 mg/	population Workers	Systemic

**PNECs** 

Date of issue/Date of revision: 8-3-2023Version: 4Date of previous issue: 7-12-202210/23AkzoNobel

P 60-A TUK PALE GREEN

### **SECTION 8: Exposure controls/personal protection**

Product/ingredient name	Compartment Detail	Value	Method Detail
reaction product: bisphenol-A- (epichlorhydrin); epoxy resin	Fresh water	3 μg/l	-
	Marine water	0.3 µg/l	-
	Sewage Treatment Plant	10 mg/l	-
	Fresh water sediment	0.5 mg/kg dwt	-
	Marine water sediment	0.5 mg/kg dwt	-
	Sediment	0.05 mg/kg dwt	-

#### 8.2 Exposure controls

## 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.

### Individual protection measures

#### 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.

### Eye/face 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.

### **Skin 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.

When prolonged or frequently repeated contact may occur, a glove with a protection class of 6 (breakthrough time >480 minutes according to EN374) is recommended. Recommended gloves: Viton @ or Nitrile, thickness  $\ge 0.38$  mm. When only brief contact is expected, a glove with protection class of 2 or higher (breakthrough time >30 minutes according to EN374) is recommended. Recommended gloves: Nitrile, thickness  $\ge 0.12$  mm.

Necommended gloves. Nitille, thickness 2 0.12 mm.

Gloves should be replaced regularly and if there is any sign of damage to the glove material.

The performance or effectiveness of the glove may be reduced by physical/chemical damage and poor maintenance.

The user must check that the final choice of type of glove selected for handling this product is the most appropriate and takes into account the particular conditions of use, as included in the user's risk assessment.

Date of issue/Date of revision: 8-3-2023Version: 4Date of previous issue: 7-12-202211/23AkzoNobel

P 60-A TUK PALE GREEN

### **SECTION 8: Exposure controls/personal protection**

### **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. Refer to European Standard EN 1149 for further information on material and design requirements and test methods.

#### Other skin protection

: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

### **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.

## 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.

## 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

Date of issue/Date of revision: 8-3-2023Version: 4Date of previous issue: 7-12-202212/23AkzoNobel

P 60-A TUK PALE GREEN

## **SECTION 9: Physical and chemical properties**

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

### 9.1 Information on basic physical and chemical properties

**Appearance** 

Physical state : Liquid.
Color : Green.

Odor : Characteristic.
Odor threshold : Not available.
Melting point/freezing point : Not available.
Initial boiling point and : Not available.

boiling range

Flammability
Lower and upper explosion

: Not available.: Not available.

limit

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

Auto-ignition temperature

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	

**Decomposition temperature**: Not available.

pH : Not available. [DIN EN 1262]

Viscosity : Kinematic (room temperature): 394 mm²/s [DIN EN ISO 3219]

Kinematic (40°C): 101 mm<sup>2</sup>/s [DIN EN ISO 3219]

Solubility(ies) :

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

Partition coefficient: n-octanol/ : Not applicable.

water

Vapor pressure :

	Vapor Pressure at 20		ire at 20°C	0°C Vapor pres		
Ingredient name	mm Hg	kPa	Method	mm Hg	kPa	Method
pitroethane	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				
Amines, polyethylenepoly-, triethylenetetramine fraction	0.0026	0.00035	OECD 104			

Date of issue/Date of revision: 8-3-2023Version: 4Date of previous issue: 7-12-202213/23AkzoNobel

P 60-A TUK PALE GREEN

### **SECTION 9: Physical and chemical properties**

					Ļ
reaction product: bisphenol-A- (epichlorhydrin); epoxy resin	<0	<0	EU A.4		
propylidynetrimethanol	0	0			
29H,31H-phthalocyaninato(2-)- N29,N30,N31,N32 copper	0	0	EU A.4		

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

Vapor density : Not available.

**Particle characteristics** 

Median particle size : Not applicable.

## **SECTION 10: Stability and reactivity**

**10.1 Reactivity** : No specific test data related to reactivity available for this product or its ingredients.

**10.2 Chemical stability** : The product is stable.

10.3 Possibility of hazardous reactions

: Under normal conditions of storage and use, hazardous reactions will not occur.

10.4 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.

**10.5 Incompatible materials** : Reactive or incompatible with the following materials:

oxidizing materials

10.6 Hazardous decomposition products

: Under normal conditions of storage and use, hazardous decomposition products

should not be produced.

## **SECTION 11: Toxicological information**

### 11.1 Information on toxicological effects

### **Acute toxicity**

Product/ingredient name	Result	Species	Dose	Exposure
<mark></mark> wutan-2-ol	LC50 Inhalation Gas.	Rat	8000 ppm	4 hours
	LC50 Inhalation Vapor	Rat	48500 mg/m <sup>3</sup>	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	-
	LD50 Oral	Rat	2193 mg/kg	-
	LD50 Oral	Rat	2054 mg/kg	-
strontium chromate	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	-
nitroethane	LD50 Intraperitoneal	Mouse	310 mg/kg	-
	LD50 Oral	Mouse	860 mg/kg	-
	LD50 Oral	Rat	1100 mg/kg	_
zinc oxide	LD50 Intraperitoneal	Rat	240 mg/kg	-
	LD50 Oral	Mouse	7950 mg/kg	-

Date of issue/Date of revision: 8-3-2023Version: 4Date of previous issue: 7-12-202214/23

AkzoNobel

P 60-A TUK PALE GREEN

## **SECTION 11: Toxicological information**

Conclusion/Summary

: Not available.

### **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	1770.9	32520	N/A	128.6	1.5
strontium chromate	500	N/A	N/A	N/A	0.27
nitroethane	500	N/A	N/A	11	N/A
Amines, polyethylenepoly-, triethylenetetramine	500	1100	N/A	N/A	N/A
fraction					
barium salts	100	300	N/A	N/A	0.05

### **Irritation/Corrosion**

Product/ingredient name	Result	Species	Score	Exposure	Observation
butan-2-ol	Eyes - Severe irritant	Rabbit	-	0.1 MI	-
reaction product: bisphenol-A-(epichlorhydrin); epoxy resin	Eyes - Mild irritant	Rabbit	-	100 mg	-
Tesiii	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	-

Conclusion/Summary

: Not available.

**Sensitization** 

Conclusion/Summary

: Not available.

**Mutagenicity** 

Conclusion/Summary

: Not available.

Carcinogenicity

**Conclusion/Summary** 

: Not available.

Reproductive toxicity

**Conclusion/Summary** 

: Not available.

**Teratogenicity** 

Conclusion/Summary

: Not available.

### Specific target organ toxicity (single exposure)

Product/ingredient name	Category	Route of exposure	Target organs
butan-2-ol	Category 3	-	Respiratory tract irritation
strontium chromate	Category 3 Category 3	-	Narcotic effects Respiratory tract irritation

### Specific target organ toxicity (repeated exposure)

Product/ingredient name	Category	Route of exposure	Target organs
barium chromate	Category 1	-	kidneys, respiratory tract

Date of issue/Date of revision: 8-3-2023Version: 4Date of previous issue: 7-12-202215/23

3 AkzoNobel

P 60-A TUK PALE GREEN

### **SECTION 11: Toxicological information**

### **Aspiration hazard**

Not available.

Information on the likely

routes of exposure

: Not available.

Potential acute health effects

**Eye contact** : Causes serious eye damage.

**Inhalation**: Harmful if inhaled. May cause respiratory irritation.

**Skin contact**: Causes severe burns. May cause an allergic skin reaction.

**Ingestion**: Harmful if swallowed.

Symptoms related to the physical, chemical and toxicological characteristics

**Eye contact**: Adverse symptoms may include the following:

pain watering redness

**Inhalation** : Adverse symptoms may include the following:

respiratory tract irritation

coughing

reduced fetal weight increase in fetal deaths skeletal malformations

**Skin contact**: Adverse symptoms may include the following:

pain or irritation

redness

blistering may occur 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

Delayed and immediate effects and also chronic effects from short and long term exposure

**Short term exposure** 

Potential immediate : Not available.

effects

Potential delayed effects : Not available.

Long term exposure

Potential immediate : Not available.

effects

Potential delayed effects : Not available.

Potential chronic health effects

Not available.

**Conclusion/Summary**: 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**: May cause genetic defects.

Date of issue/Date of revision : 8-3-2023 Version : 4

Date of previous issue :7-12-2022 16/23 AkzoNobel

P 60-A TUK PALE GREEN

## **SECTION 11: Toxicological information**

**Reproductive toxicity**: May damage fertility or the unborn child.

#### 11.2 Information on other hazards

### 11.2.1 Endocrine disrupting properties

Not available.

#### 11.2.2 Other information

Not available.

## **SECTION 12: Ecological information**

### 12.1 Toxicity

There are no data available on the mixture itself.

Do not allow to enter drains or watercourses.

The mixture has been assessed following the summation method of the CLP Regulation (EC) No 1272/2008 and is classified for eco-toxicological properties accordingly. See Sections 2 and 3 for details.

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
zinc oxide	Acute EC50 1 mg/l Fresh water	Daphnia - Daphnia magna -	48 hours
		Neonate	
	Acute EC50 0.622 mg/l Fresh water	Daphnia - Daphnia magna -	48 hours
		Neonate	
	Acute EC50 0.481 mg/l Fresh water	Daphnia - Daphnia magna -	48 hours
		Neonate	
	Acute LC50 1.25 mg/l Fresh water	Daphnia - Daphnia magna -	48 hours
		Neonate	
	Acute LC50 98 µg/l Fresh water	Daphnia - Daphnia magna -	48 hours
		Neonate	
	Acute LC50 3.969 mg/l Fresh water	Fish - Danio rerio - Adult	96 hours
	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 -	96 hours
		Neonate	

Conclusion/Summary : Not available.

### 12.2 Persistence and degradability

**Conclusion/Summary**: Not available.

### 12.3 Bioaccumulative potential

Product/ingredient name	LogPow	BCF	Potential
<b>b</b> utan-2-ol	0.61	-	low
reaction product: bisphenol-	2.64 to 3.78	31	low
A-(epichlorhydrin); epoxy			
resin			
nitroethane	0.18	-	low
Amines, polyethylenepoly-,	-2.65	-	low
triethylenetetramine fraction			
zinc oxide	-	28960	high

### 12.4 Mobility in soil

Soil/water partition coefficient (Koc)

: Not available.

Date of issue/Date of revision	: 8-3-2023	Version : 4	
Date of previous issue	: 7-12-2022	17/23	AkzoNobel

P 60-A TUK PALE GREEN

### SECTION 12: Ecological information

**Mobility** : Not available.

#### 12.5 Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

### 12.6 Endocrine disrupting properties

Not available.

#### 12.7 Other adverse effects

No known significant effects or critical hazards.

### **SECTION 13: Disposal considerations**

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

### 13.1 Waste treatment methods

#### **Product**

Methods of disposal : 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.

: The classification of the product may meet the criteria for a hazardous waste. **Hazardous waste** 

**Disposal considerations** : Do not allow to enter drains or watercourses. Dispose of according to all federal, state and local applicable regulations.

If this product is mixed with other wastes, the original waste product code may no

longer apply and the appropriate code should be assigned.

For further information, contact your local waste authority.

### European waste catalogue (EWC)

The European Waste Catalogue classification of this product, when disposed of as waste, is:

Waste code	Waste designation
EWC 08 01 11* waste paint and varnish containing organic solvents or other hazardous substances	

### **Packaging**

Methods of disposal : The generation of waste should be avoided or minimized wherever possible. Waste

packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

: Using information provided in this safety data sheet, advice should be obtained from **Disposal considerations** 

the relevant waste authority on the classification of empty containers. Empty containers must be scrapped or reconditioned.

Dispose of containers contaminated by the product in accordance with local or

national legal provisions.

Special 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.

Date of issue/Date of revision : 8-3-2023 Version: 4 **AkzoNobel** Date of previous issue :7-12-2022 18/23

P 60-A TUK PALE GREEN

## **SECTION 14: Transport information**

	ADR/RID	IMDG	IATA
14.1 UN number or ID number	UN3469	UN3469	UN3469
14.2 UN proper shipping name	PAINT, FLAMMABLE, CORROSIVE	PAINT, FLAMMABLE, CORROSIVE	PAINT, FLAMMABLE, CORROSIVE
14.3 Transport hazard class(es)	3 (8)	3 (8)	3 (8)
14.4 Packing group	III	III	III
14.5 Environmental hazards	Yes.	Marine Pollutant(s): strontium chromate, reaction product: bisphenol-A- (epichlorhydrin); epoxy resin	Yes. The environmentally hazardous substance mark is not required.

### **Additional information**

ADR/RID : The environmentally hazardous substance mark is not required when transported in

> sizes of ≤5 L or ≤5 kg. Tunnel code (D/E)

**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.

user

14.6 Special precautions for : 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.

14.7 Maritime transport in bulk according to IMO

instruments

: Not applicable.

## SECTION 15: Regulatory information

### 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture EU Regulation (EC) No. 1907/2006 (REACH)

### Annex XIV - List of substances subject to authorization

### **Annex XIV**

Intrinsic property	Ingredient name		Reference number	Date of revision
Carcinogen	strontium chromate	Listed	29	8/22/2014

### Substances of very high concern

Intrinsic property	Ingredient name	Status		Date of revision
Carcinogen	strontium chromate	Recommended	ED/77/2011	8/22/2014

**REACH Authorization** 

REACH/20/7/5, REACH/20/7/15

number

Date of issue/Date of revision : 8-3-2023 Version: 4 **AkzoNobel** Date of previous issue :7-12-2022 19/23

P 60-A TUK PALE GREEN

### SECTION 15: Regulatory information

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances,

: Restricted to professional users.

**Other EU regulations** 

mixtures and articles

VOC : The provisions of Directive 2004/42/EC on VOC apply to this product. Refer to the

product label and/or technical data sheet for further information.

**VOC for Ready-for-Use** 

**Mixture** 

: Not available.

: Not listed

: Not listed

**Industrial emissions** (integrated pollution

prevention and control) -

Air

**Industrial emissions** 

(integrated pollution prevention and control) -

Water

Ozone depleting substances (1005/2009/EU)

Not listed.

Prior Informed Consent (PIC) (649/2012/EU)

Not listed.

**Persistent Organic Pollutants** 

Not listed.

### **Seveso Directive**

This product is controlled under the Seveso Directive.

### **Danger criteria**

### Category P<sub>5</sub>c E2

#### **National regulations**

Industrial use : The information contained in this safety data sheet does not constitute the user's

> own assessment of workplace risks, as required by other health and safety legislation. The provisions of the national health and safety at work regulations apply

to the use of this product at work.

Product/ingredient name	List name	Name on list	Classification	Notes
strontium chromate	Sweden Occupational Exposure Limits	chromium(VI)- compounds inhalable fraction, (as Cr)	Carc. C	-
barium chromate	Sweden Occupational Exposure Limits	chromium(VI)- compounds inhalable fraction, (as Cr)	Carc. C	-

Flammable liquid class

(SRVFS 2005:10)

: 2a

### **International regulations**

### Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Date of issue/Date of revision : 8-3-2023 Version: 4 **AkzoNobel** Date of previous issue :7-12-2022 20/23

P 60-A TUK PALE GREEN

### **SECTION 15: Regulatory information**

### **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.

### 15.2 Chemical Safety

**Assessment** 

: No Chemical Safety Assessment has been carried out.

### **SECTION 16: Other information**

Indicates information that has changed from previously issued version.

Abbreviations and

: ATE = Acute Toxicity Estimate

acronyms

CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No.

1272/2008]

DMEL = Derived Minimal Effect Level
DNEL = Derived No Effect Level

EUH statement = CLP-specific Hazard statement

N/A = Not available

PBT = Persistent, Bioaccumulative and Toxic PNEC = Predicted No Effect Concentration RRN = REACH Registration Number

SGG = Segregation Group

vPvB = Very Persistent and Very Bioaccumulative

### Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Classification	Justification
Flam. Liq. 3, H226	On basis of test data
Acute Tox. 4, H302	Calculation method
Acute Tox. 4, H332	Calculation method
Skin Corr. 1C, H314	Calculation method
Skin Sens. 1, H317	Calculation method
Muta. 1B, H340	Calculation method
Carc. 1A, H350	Calculation method
Repr. 1B, H360	Calculation method
STOT SE 3, H335	Calculation method
Aquatic Chronic 2, H411	Calculation method

### Full text of abbreviated H statements

H226	Clampable liquid and years
*	Flammable liquid and vapor.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H311	Toxic in contact with skin.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H330	Fatal if inhaled.
H332	Harmful if inhaled.
H334	May cause allergy or asthma symptoms or breathing difficulties if
	inhaled.

Date of issue/Date of revision : 8-3-2023 Version : 4

Date of previous issue :7-12-2022 21/23 AkzoNobel

P 60-A TUK PALE GREEN

SECTION 16: Other information		
H335	May cause respiratory irritation.	
H336	May cause drowsiness or dizziness.	
H340	May cause genetic defects.	
H341	Suspected of causing genetic defects.	
H350	May cause cancer.	
H360	May damage fertility or the unborn child.	
H361	Suspected of damaging fertility or the unborn child.	
H372	Causes damage to organs through prolonged or repeated	
	exposure.	
H400	Very toxic to aquatic life.	
H410	Very toxic to aquatic life with long lasting effects.	
H411	Toxic to aquatic life with long lasting effects.	
H412	Harmful to aquatic life with long lasting effects.	

### Full text of classifications [CLP/GHS]

Acute Tox. 2	ACUTE TOXICITY - Category 2
Acute Tox. 3	ACUTE TOXICITY - Category 3
Acute Tox. 4	ACUTE TOXICITY - Category 4
Aquatic Acute 1	AQUATIC HAZARD (ACUTE) - Category 1
Aquatic Chronic 1	AQUATIC HAZARD (LONG-TERM) - Category 1
Aquatic Chronic 2	AQUATIC HAZARD (LONG-TERM) - Category 2
Aquatic Chronic 3	AQUATIC HAZARD (LONG-TERM) - Category 3
Carc. 1A	CARCINOGENICITY - Category 1A
Eye Irrit. 2	SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2
Flam. Liq. 3	FLAMMABLE LIQUIDS - Category 3
Muta. 1B	GERM CELL MUTAGENICITY - Category 1B
Muta. 2	GERM CELL MUTAGENICITY - Category 2
Repr. 1B	TOXIC TO REPRODUCTION - Category 1B
Repr. 2	TOXIC TO REPRODUCTION - Category 2
Resp. Sens. 1	RESPIRATORY SENSITIZATION - Category 1
Skin Corr. 1B	SKIN CORROSION/IRRITATION - Category 1B
Skin Corr. 1C	SKIN CORROSION/IRRITATION - Category 1C
Skin Irrit. 2	SKIN CORROSION/IRRITATION - Category 2
Skin Sens. 1	SKIN SENSITIZATION - Category 1
Skin Sens. 1B	SKIN SENSITIZATION - Category 1B
STOT RE 1	SPECIFIC TARGET ORGAN TOXICITY (REPEATED
	EXPOSURE) - Category 1
STOT SE 3	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) -
	Category 3

Date of printing : 8 March 2023

Date of issue/ Date of : 8 March 2023

revision

Date of previous issue : 7 December 2022

Version : 4 Unique ID :

<u>Annex</u>

**Exposure Scenarios** : https://rebrand.ly/exposure-english

Notice to reader

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

Date of issue/Date of revision: 8-3-2023Version: 4Date of previous issue: 7-12-202222/23AkzoNobel

P 60-A TUK PALE GREEN

### **SECTION 16: Other information**

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.

Brand names mentioned in this data sheet are trademarks of or are licensed to Akzo Nobel.

Date of issue/Date of revision : 8-3-2023 Version : 4

Date of previous issue :7-12-2022 23/23 AkzoNobel