Revision:2
Date:12/03/2024

MATARIAL SAFETY DATA SHEET

Regulation on Safety Data Sheets for Harmful Substances and Mixtures
(R.G.13.12.2014-29204)

EPISODE 1: Of matter / mix and company/ Id of the distributor

1.1 Product identifier:
Name of the product : **RAL 3020 PE-GLOSSY**

Registration number	Item description	CAS number
D40705297057249163	Titanyumdioksit	13463-67-7
D4070579705789007	1,3,5-tris(oxiranylmethyl)-1,3,5-triazine-2,4,6(1H,3H,5H)-trione; TGIC	2451-62-9

Formula: TİO2- C12H15N3O6-
Molecular weight: 79,8866 g/mol- 297,26 g/mol
Synonyms: 1,3,5-tri(oksiranilmetil)-1,3,5-triazin-2,4,6(1H,3H,5H)-trion; TGIC

1.2.Relevant identified uses of the substance or mixture and uses advised against Relevant identified uses
Uses specific to the main use category: **Protection of metal surfaces, especially those requiring external strength used for**

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1.2 Details of the supplier of the safety data sheet
Company Name **:** NMK Boya Kimya SAN.TİC.A.Ş

Address **:** Orta Mah. Atayolu Cad.
Boya vernikçiler San.sit.No:8-9
Tepeören- TUZLA/İSTANBUL

Phone 0216 517 05 82

GBF authorized person **:** arge@nmkboya.com

1.4 Emergency phone
Emergency Phone **0532 286 41 15**
National Poison Control Center **114**

EPISODE 2: Definition of Hazard

2.1 . Publication of the substance or mixture
Thinking according to Regulation (EC) No 1272/2008 [CLP]

Muta.1B	H340
Acute Tox.3	H331
Acute Tox.3	H301
BHOT reexposure .2	H373
Eye Dmg.1	H318
Skin sensitive.1	H317
Aquatic chronic 2	H411
Aquatic chronic 3	H412

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2.2. Label elements
Labeling according to Regulation (EC) No 1272/2008 [CLP]
Hazard pictograms

Hazard Statements

H340	**:** It can cause genetic damage.
H331	: Toxic by inhalation
H301	: It is toxic if swallowed.
H373	:May cause damage to organs through prolonged or repeated exposure.
H318	: Leads to serious eye accessories.
H317	: Causes skin irritation.
H411	: Long lasting, toxic effect in the aquatic environment
H412	: Harmful to aquatic life with long lasting effects
Precautionary statements	
P202	:Do not handle until all precautionary statements have been read
P261	: Do not breathe dust/fume/gas/mist/vapours/spray.
P281	: Use personal protective equipment.
P304+P340	: IF INHALED Remove victim to fresh air and keep in a position comfortable for breathing
P270	:Do not eat, drink or smoke while using this product. do not use
.P280	:Wear protective gloves/protective clothing/eye protection/face protection
.P305+P351+P338	: IF IN EYES: Rinse vigorously with water for several minutes. Remove any inserted contact lenses. Keep rinsing
.P302+P352	: IF ON SKIN: Wash with plenty of soap and water.
P501	: Dispose of contents/container.

EPISODE3: Composition/information on ingredients

3.1. Materials

Substance name	Product identifier	percent (wt/wt)	Classification EC 1272/2008
Titanyumdioksit	**(CAS No) 13463-67- (EC No) 236-675-5 (REACH Kayıt No)05-0000407052-27-0000**	**15-20**	**Eye Damage1 H318 Aquatic chronic2 H411**
1,3,5-tris(oxiranylmethyl)-1,3,5-triazine-2,4,6(1H,3H,5H)-trione; TGIC	**(CAS No) 2451-62-9 (EC No) 219-514-3 (REACH Kayıt NO) 05-0000407057-73-0000**	**1-5**	**Mut.1B :H340 AcuteTox.3 :H331 Acute Tox.3:H301 BHOT Tekrar Mrz.2 :H373 Eye Damage1. :H318 Skin sensitive 1:H317 Aquatic Chronic3:H412**

*** Expansion of H expressions is given in Chapter 16.**

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EPISODE 4: First Aid Measures

4.1. First aid measure definitions

General	Move away from the danger area. If you feel unwell, get medical help. this safety data sheet to the doctor you go to Show it. Symptoms of poisoning appear after a few hours. Do not leave the affected person unattended.
Respiratory	Call a doctor or poison control center immediately. Clean breathe. If unconscious, place in recovery position and seek medical get help
.	
Swallowing	Keep respiratory tract clear. Do not induce vomiting. Do not give milk or alcoholic beverages. an unconscious Never give anything by mouth to a person. Get medical help immediately.
Skin contact	Wash skin thoroughly with soap and water and rinse thoroughly or Use a reputable skin cleanser. contaminated clothing and remove shoes. If symptoms occur, seek medical attention.Wash clothes before use.

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

General information	Harmful in contact with skin and if inhaled. may cause an allergic skin reaction. Causes skin and eye irritation.
Respiratory	Inhalation may cause respiratory irritation.
Swallowing	May be harmful if swallowed and enters respiratory tract.
Skin contact	Skin exposure causes irritation and sensitization.
Eye contact	Causes damage by direct contact with eyes.

4.3.Indication of any urgent medical attention and special treatment requirements

Symptomatic treatment: If large quantities are swallowed or inhaled, contact a poison therapy professional immediately.

EPISODE 5: Fire Fighting Measures

5.1 Extinguishing medium

Suitable extinguishing agents	Dry chemical, carbon dioxide(CO_2) , Alcohol resistant foam
Unsuitable extinguishing agents	Do not mix high volume water jet, powder paint and aerate.

5.2. Special hazards arising from the substance or mixture

Fire fumes can form: Oxides of carbon and sulfur

5.3. Advice for firefighters

Use self-contained breathing apparatus for firefighting.
Do not spray on open flame or any other incandescent material. Explosion-proof equipment only use it. Necessary to prevent static electricity discharge (which can cause ignition of organic vapors) Take precautions. Keep away from open flames, surfaces and ignition sources..

EPISODE 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Provide adequate ventilation. Eliminate all ignition sources.
Evacuate personnel to safe areas. Beware of vapors accumulating to form explosive concentrations.
Vapors can accumulate in low areas.

6.2. Environmental precautions

Prevent the product from going into the sewer. Prevent further leaks or spills if safe to do so. product rivers,
Notify relevant authorities if it contaminates lakes or sewers.

6.3. Methods materials for containment and cleaning up

Contain spills and then use non-combustible absorbent materials (eg sand, earth, diatomaceous earth, Vermiculite) and place in a container for disposal according to local/national regulations.

EPISODE 7: HANDLING AND STORAGE

7.1 Precautions for safe use

People with allergies and respiratory complaints should not be exposed to or apply powder paints.
Precautions should be taken to prevent the formation of a dust concentration that may cause fire, explosion or above the occupational exposure limit. Electrical equipment or lighting must be protected according to appropriate standards so that dust does not contact the hot surface and create sparks or arcs. Powder coating can be electrostatically charged so grounding must be done when transferring from one container to another. Operators should wear antistatic shoes and clothes, the floor should be conductive. Avoid contact with skin and eyes, inhalation of dust. Containers should be tightly closed. It should be kept away from open flames, sparks and heat sources. Smoking, eating and drinking should be prohibited in the application area.
Labor laws on health and safety must be followed.
Powder coating should always be kept in the same type of packaging as its original packaging.
For personal protection, see section 8.

7.2. Conditions for safe storage, including any incompatibilities

The material should be stored in a well-ventilated and dry place away from direct sunlight, sources of heat and sparks. No smoking. Unauthorized persons should be prohibited from entering this area. Opened cans should be resealed and placed upright to prevent spillage..

EPISODE 8: Exposure Controls / Personal Protection

The recommended occupational exposure limit for powder coatings containing TGIC is 3 mg/m³ in Europe. This value should be considered as the maximum concentration amount that the person is exposed to during the working period (usually 8 hours), and this value should be kept as low as possible in the working environment..

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8. 1 Control parameters

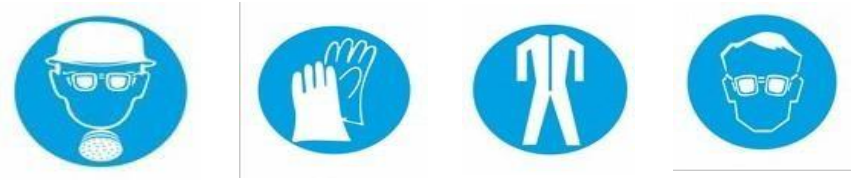
Inhalation of dust should be avoided. Practically, this problem can be solved by good ventilation and local suction and discharge of ambient air. If all these are not sufficient to go below the legal exposure limit, appropriate respiratory mask should be used.

Legal exposure limits according to the "Regulation on Measures to be Taken in Flammable, Explosive, Dangerous and Harmful Workplaces and Work":

matter	Maximum permissible concentration (MAK value)
fine powder (<5µ)	5 mg/m³
Total dust (<10µ)	10 mg/m³
Powder containing TGIC	3 mg/m³
TGIC	0.080 mg/ m³

8.2. Exposure controls

Appropriate engineering controls	By providing suitable general or local ventilation, the substance concentration in the environment is kept within the permissible keep it below limits.
Personal protective equipment	Gloves, protective clothing. Safety glasses. In case of insufficient ventilation, my soloing use protection.



Respiratory protection: If the workers are exposed to more dust concentration than the local regulations, masks that are effective against dust, P2 class, conforming to EN149 standard should be used.

Hand Protection: Protective cream or suitable gloves should be used for long-term contacts. The explanations and information on use, storage and care provided by the glove manufacturers should be followed.

Eye Protection: Protective glasses in accordance with EN166 standard should be used in places where dust may come into contact with the eyes.

Skin Protection: Personnel should wear protective clothing and the parts of the body that come into contact with the powder paint should be washed. In the selection of work clothes, care should be taken to minimize the contact of the skin with dust and to be covered on all sides and cotton to prevent static electricity.

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EPISODE 9: Physical And Chemical Properties

9.1 Information on basic physical and chemical properties

Appearance	fine grain powder
Colour	white
Smell	not bad
Olfactory threshold	no data
Relative density,23ºC	1.2-1.9 g/cm³
Mass density 23ºC:	400-1000 kg/m³
Lowest explosion limit of dust/air mixture	20-70 g/m³
Solubility in water	Insoluble
Softening point	>50ºC hot surface
Ignition temperature of dust/air mixture	450-600
Minimum ignition energy	5-20 mJ
Vapor pressure	none
PH value in water	The PH value of the water will not change
Flash point	none

*The lowest explosion limit of powder coatings varies between these values depending on their physical and chemical properties.Decomposition by heat; harmful decomposition products; harmful reactions; Not applicable in normal use. In case of doubt, consult your powder coating supplier..

EPISODE 10: Stability and Responsiveness

10.1 Reaction
The product does not react dangerously.

10.2. Chemical stability
Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions
None.

10.4. Conditions to avoid
Keep away from open flames, hot surfaces and sources of ignition.

10.5. Substances to be avoided
There is no substance that can cause a dangerous reaction in case of contact..

10.6. Hazardous Decomposition Products
When exposed to high heat, harmful by-products such as carbon monoxide and dioxide, nitrogen oxides and smoke can be formed.

11. TOXICOLOGICAL INFORMATION

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As a result of the tests performed on mixtures containing TGIC, the following were found:
Acute toxicity: LD50 (orally) > 16 g/kg w/w. LC50 (by inhalation) > 11 g/ m³

Skin corrosion/Irritation: It is corrosive in contact with skin.
Serious eye damage/irritation: Causes serious eye damage.
Mutagenicity: Bacterial reverse mutation assay:negative
Chromosomal exchange test in mouse spermatogonial cells: positive
Dominant lethality: negative

EPISODE12: Ecological Information

12.1. Toxicity

LC50 the fish	>24mg/l (Exposure time: 96 h kind:Lepomis macrochirus
EC50 aquatic invertebrates	24 mg/l(exposure time: 48 h kid: Daphnia magna
EC50	366 mg/l (exposure time 72 h kid pseudokirchneriella subcaptita

12.2. Persistence and degradability: This material is not expected to readily biodegrade.
12.3. With bioaccumulation potential: Bioaccumulation is unlikely**.**Kow:1.2
12.4. Mobility in soil: No additional information has been provided.
12.5. Results of PBT And vPvB assessment: Product Article XIII of Regulation (EC) No 1907/2006. It does not contain PBT or vPvB substances according to its annex.
12.6. Other adverse effects
An environmental hazard cannot be excluded in case of unprofessional use or disposal. Toxic to aquatic life with long lasting effects.

EPISODE 13: Disposal Information

The product should not be allowed to mix with sewers and waterways.
Waste and used packaging should be disposed of in a way that does not create dust in accordance with the "Regulation on Control of Hazardous Wastes".
Refer to the European Union provisions regarding waste in Europe. Keep in mind that national and regional provisions can be compelling.

14. Transport Information

Powder coatings are not classified as dangerous goods under transport regulations.

EPISODE 15: Regulatory Information

Regulation on Safety Data Sheets for Harmful Substances and Mixtures (R.G.13.12.2014-29204)
Handling, labeling and packaging of substances and mixtures, Amending Regulation (EC) No. 1272/2008 and Regulation (EC) No. 1907/2006 of the European parliament and council repealing the limitations and repeal of Directives 67/548/EEC and 1999/45/EC.

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EPISODE 16. Other informations

Revision date:03.10.2022

Word Abbreviations and Initials Abbreviations

Muta.1B	Mutagen Category 1B
Akut. Tok.3	Acute Toxicity (Skin) Category 3
Akut Tok. 3	Acute Toxicity /Oral) Category 3
BHOT rpt exp 2	Specific target organ toxicity - repeated exposure Category 2
EYE dmg 1	Eye damage category 1
Skin Sensitive. 1	Skin Sensitizer Category 1
Aquatic Chronic 3	Aquatic chronic Category 3

Full Hazard Statements

H373	**:** Damage to organs through prolonged or repeated exposure may cause.
H318	**:** Causes serious eye damage.
H317	**:** Causes skin irritation.
H412	**:** Harmful to aquatic life with long lasting effects

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Disclaimer

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