Product name STARDUR DF 475 T GREEN 2,5G 4/8 Code 12278479

COMPONENT A

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1. PRODUCT AND COMPANY IDENTIFICATION

Product name : STARDUR DF 475 T GREEN 2,5G 4/8 COMPONENT A

Code : 12278479

Main recommended uses : Coating for maintenance sector

Address : Rodovia BR 280 - km 50

CEP 89270-000, Guaramirim - SC

Telephone : +55 47 3276-4000

Emergency telephone

number

0800 720 8000

E-mail / site : tintas@weg.net | www.weg.net

2. HAZARD IDENTIFICATION

Mixture classification

Flammable liquids : Category 3

Skin Corrosion/irritation : Category 2

Skin sensitization : Category 1

Germ cell mutagenicity : Category 2

Carcinogenicity : Category 1B

Reproductive toxicity : Category 1A

Specific target organ toxicity -

Repeated exposure

Category 2

Hazardous to the aquatic

environment - Acute

Category 2

Hazardous to the aquatic

environment - Cronic

Category 2

Classification according to NBR 14725-2/2009

Labelling Elements

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Warning phrase : Danger

Hazard phrases : H226 Flammable liquid and vapour.

H315 Causes skin irritation.

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.

H373 May cause damage to organs through prolonged or

repeated exposure. H401 Toxic to aquatic life.

H411 Toxic to aquatic life with long lasting effects.

Caution Phrases

Prevention:

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P233 Keep container tightly closed.

P260 Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.

P273 Avoid release to the environment.

P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

Reaction:

P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

P308+P313 IF exposed or concerned: Call a doctor.

P333+P313 If skin irritation or a rash occurs: Get medicaladvice/attention.

P362+P364 Take off contaminated clothing and wash it before reuse.

P370+P378 In case of fire: Use as chapter 5 of MSDS to extinguish.

P391 Collect spillage.

EMERGÊNCIA: +55 0800 720 8000 - E-mail: tintas@weg.net - www.weg.net

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Storage:

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

Treatmentand disposal of waste:

P501 Dispose of contents/container as chapter 13 of the

MSDS.

Other hazard : When heated above its flash point, this material will release

toxic vapors and flames, and can burn in open area if exposed

to an ignition source.

3. COMPOSITION AND INFORMATION ABOUT THE INGRENDIENTS

Product type: : Mixture

Ingrendients that contribute to danger:

Product name	CAS No.	Risck classification	Concentration [%]
PIGMENT INORGANIC CROMATO YELLOW LEAD	1344-37-2	Carcinogenicity, Category 1B Reproductive toxicity, Category 1A Specific target organ toxicity - Repeated exposure, Category 2 Hazardous to the aquatic environment - Acute, Category 1 Hazardous to the aquatic environment - Cronic, Category 1	>= 1 - < 5
SOLVENT ALKYLBENZENE	64742-95-6	Flammable liquids , Category 3 Aspiration hazard , Category 1 Specific target organ toxicity - Single exposure , Category 3 Skin Corrosion/irritation , Category 3 Germ cell mutagenicity , Category 2 Carcinogenicity , Category 1B Hazardous to the aquatic environment - Acute ,	>= 1 - < 5

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2450120111 321001201	- '	r uge: 4 c	,, <u>13</u>
		Category 2 Acute toxicity Ingestion, Category 5 Specific target organ toxicity - Repeated exposure, Category 2 Aspiration hazard, Category 1	
RHEOLOGICAL ADDITIVE	71011-24-0	Skin sensitization, Category 1 Acute toxicity Inhalation, Category 5	>= 0,1 - < 1

4. FIRST AID MEASURES

Inhalation : Take the victim to fresh air, keeping them rested and warm. If

breathing is irregular or has stopped, apply artificial respiration. Do not give anything orally. Seek medical assistance immediately, bringing the product label whenever

possible.

Contact with the skin : Remove the product with vegetal oil (cooking oil) and then

wash the skin thoroughly with plenty of water. Do not use solvents or thinners. Seek medical attention in case of any

irritation or other symptoms.

Contact with the eyes : Remove contact lenses, if wearing any. Flush the eyes with

running water for at least 15 minutes, holding the eyelids apart. Seek medical assistance immediately, bringing the

product label with you.

Ingestion : Do not provoke vomiting. Consult with a doctor immediately.

Most important symptoms and effects, both acute and

delayed

Notes for the doctor

: Headaches, dizziness, fatigue and in extreme cases, loss of

consciousness.

: Treat symptomatically. Do not induce vomiting because of risk of aspiration of gastric contents into the lungs. Gastric lavage is recommended when the patient ingests large quantities,

more than 5ml of the substance in its pure form. The toxic potential of the quantity consumed must be evaluated in relation to the risk of aspiration during gastric lavage.

Activated coal in solution could be useful. However, in some

cases the coal induces vomiting.

5. FIRE-FIGHTING MEASURES

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Suitable extinguishing

methods

Water in mist form Carbon dioxide (CO2) Foam alcohol resistent Dry chemical powder

Extinguishing methods not: Direct water jet.

recommended

Specific dangers

: Flammable liquid and vapour. Dangerous when exposed to heat or ignition source. Exposed packaging to the fire may rupture due to the increased pressure with risk of a subsequent explosion. The vapours are havier than the air and spread close to the ground and it can move to the ignition source and provoke fire or backspace of the flames. Avoid the accumulation of vapours in depressions on the ground, manholes, basement etc. The vapours and/or the particles finely divided (spray) may form explosive mixtures with the air. In case of burning of the product, it forms carbon and nitrogen compounds. The inhalation of these subproducts may cause damage to health.

Protective measures of the fire fighting team.

: The personnel involved in firefighting should wear self contained breathing apparatus with positive pressure and full protection clothes.

Specific methods

: Evacuate and isolate the area. Approach from fire with wind at your back. Fight the fire to a secure distance. Remove the packaging of the product from the fire area if this can be made with safety. Chill sideways with water in form of fog all the closed packaging near the fire. Avoid that the resulting water from fire fighting reaches drains or waterways. Use dikes to contain this water and eliminate it according to environmental regulations.

6. SPILL / LEAK CONTROL PROCEDURES

Personal precautions, protective equipment and emergency procedures

For the emergency service staff

: If specialized clothing is needed to combat the leak/spillage, Section 8 should be consulted. All precautions described in the following section must be followed.

For staff who are not part of the emergency services No action should be taken that may generate danger to people without adequate training and

qualifications. Understand the dangers of leaked/spilled products. Use appropriate personal protective equipment see section 8. Evacuate surrounding areas. Isolate area and keep onlookers away. Do not touch or walk through spilled material. Eliminate all sources of ignition. Avoid breathing vapor or mist. Provide adequate ventilation if possible. Wear

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appropriate respiratory mask when ventilation is inadequate.In accordance with characteristics of the location and/or area and in relation to the amount of spilled/leaked product, additional emergency measures may be taken under the supervision of a trained professional.

Environmental precautions

: Prevent the product or the water used in the service reaches waterways,

channels, drains, or galleries. In case of significant spill, retain

spi

lled liquid with inert material such as sand or earth. In

approprieate,

use absorbent materials such as sawdust, rags, vermiculites,

etc.

Methods and materials for containment and cleaning

Large spills / leaks : Understand the dangers of leaked/spilled

products. Approaching the site with the wind from behind. Stop leak if this can be done safely. Prevent from entering holes / depressions in the floor. If this happens to provide ventilation. Confine the spill in a dike away from the leak point for later disposal. Remove local packaging from the spills site. Use anti sparkling tools and explosion-proof equipment to collect the product. All equipment used when handling the product must be electrically grounded. Soak up with an inert dry material (sand, vermiculite) placing the same in a suitable container for

later disposal - see chapter 13.

Small spills / leaks : Stop the leak if this can be done safely. Cover up spillage in a

tarp to prevent the spread by wind or rain. Use antifaiscantes tools and explosion-proof equipment properly grounded to collect the product. Place the material collected in dry, clean and properly identified containers. Cap the container loosened so removing them from the spill site. Avoid formation of dust. Remove the packaging from the spill site. If there is product

disposal need refer to chapter 13

Contain and collect the material of the leak with absorbent materials and non-combustible, such as sand, earth, vermiculite, calcined diatomite, etc. in a waste container in

accordance with local regulations.

7. HANDLING AND STORAGE

Precautions for safe handling

Instructions for safe treatment

: Use individual protective equipment. Emergency showers and eye wash basins must be installed in locations of use and

storage.

Precautions for safe : Use appropriate personal protective equipment - see section

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handling

8; The product handling should occur in places with good natural ventilation or with the presence of local exhaust ventilation; The electrical installations must comply with the International Electrical Commission Standards (IEC), ABNT Standards (Brazilian Association of Technical Standards), taking into account the results of the classification area study for the local and/or product installation.

Use anti-sparking tools when handling the product; In transfer operations, metal containers must be used and all containers must be properly grounded to avoid sparkling by the accumulation of static energy; Handle and use away from hot surfaces, sparks, open flames, and other sources of ignition. Do not smoke; Do not ingest. Avoid inhalation of vapors or smoke as well as avoid contact with eyes, skin and clothing; Eating and drinking should be prohibited in the area where the material is handled, stored and processed. Workers should wash their hands before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering food areas; After use keep the product in its original packaging, sealed; Empty containers may be hazardous and should be disposed of properly. Do not reuse the packaging; Emergency showers and eye washer should be installed in the use and storage places.

Do not handle the product until you have read and understood all safety precautions contained in this document.

Fire protection

: Only use in well-ventilated locations, to prevent accumulation of vapors in explosive concentrations. All conductive elements of the system, in contact with the product, must be electrically grounded Keep away from heat and sources of ignition. Tools that do not produce sparks should be used. Do not smoke.

Storage conditions

Substances to be avoid

: Keep away from oxidising agents, strong acid solutions and strong alkaline solutions.

Storage conditions

: The electrical installation must comply with NEC(National Electrical Code) or IEC (International Electrical Commission) standards and/or those of the ABNT (Brazilian Association of Technical Standards). The floor of the storage area must be impermeable, non-combustible and must have ditches that allow run off into the containment reservoir. Storage tanks must be surrounded by embankments and have drains in case of leakage.

Appropriate storage conditions

: Store the material in covered, dry, well ventilated and identified areasKeep out of direct sunlight.Store in a closed container.

Inappropriate storage conditions

: Exposed to elevated temperatures, sun and rain. Close to oxidizing agents. Close to food. Close to sources of heat and ignition.

Materials to avoid

: Do not store with explosive materials, flammableand/or toxic gases, oxidizing, corrosive substances, or materials that may generate spontaneous combustion.

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Secure packaging materials

Recommended packaging

materials

Amber type glass. Metal packaging

Packaging materials to be

avoided

: Certain plastic materials

8. EXPOSURE CONTROL – PERSONAL PROTECTION

The information in this chapter contain general guidelines. Chapter 1 should be consulted for any information on the recommended use of this product in different scenarios of exposure.

Engineering control measures

Preferably use the product in adequate application cabin. In case it is not possible, provide exhaustion/ventilation enough to keep the concentration of the agents indicated in this section under the limits of tolerance (L.T.), otherwise, use adequate respiratory protection equipment. The engineering controls should keep the concentrations of gas/vapour under the limit of LEL - Lower Explosive Limit (see section 9). Use equipment explosion proof.

Control parameters

Occupational Exposure Limits

Name	CAS No.	TLV/TWA	TLV/STEL	TLV/TETO	Source
PIGMENT INORGANIC	1344-37-2	0,1 mg/m³			NR15
CROMATO YELLOW					
LEAD					
SOLVENT	64742-95-6	50 ppm			ACGIH
ALKYLBENZENE					
RHEOLOGICAL	71011-24-0	10 mg/m ³			ACGIH
ADDITIVE					

^{*}PPM - parts of vapour or gas per million of parts of contaminated air

Personal protective equipment required

Respiratory protection : In case of the concentrations are above the indicated

tolerance limits, the use of appropriated mask is necessary for this goal (half-face mask or full face mask

with filter to organic vapors and acid gases).

Hand protection : Use nitrilic gloves associated with the use of the adequate

^{**}MG/m3 - miligrams per cubic meter of air.

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protection cream

Eye protection: Use hermetic goggles to protect against liquid splashes.

Body and skin protection : It is recommended the use of apron barber type to

protecting upper limbs, trunk and lower limbs in case of splash. In case of risk of static electricity generation the

cloth should be antistatic, includin the apron.

9. PHYSICAL AND CHEMICAL PROPERTIES

Form : Liquid

State of matter: LiquidColor: GreenOdour: DistinctiveOdour limit: Not applicablepH: Not applicable

Melting point: Data not available.Boiling point: Data not available.

Flash Point (Open cup) : 28 °C

Evaporation rate : Data not available.

Inflammation point : Method: Data not available.

Upper explosive limit :

Data not available.

Lower explosive limit :

Data not available.

Vapor pressure: Data not available.Density: 1,55 - 1,65 g/cm³

Solubility(ies) : Water-insoluble

N-octano /water partition

coefficient

Data not available.

Auto flammability : Data not available.

Cinematic viscosity (25°C) : 130 - 140 UK

Vapor density : Data not available.

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10. STABILITY AND REACTIVITY

Reactivity Presents no reactivity at room temperature and under normal

conditions of use.

Chemical stability Stable at room temperature and under normal conditions of

use. Unstable at temperatures above the flash point.

Possibility of dangerous

reactions

Presents no reactivity at room temperature and under normal

conditions of use.

None when the product is stored, applied and processed

correctly.

Need to add additives and

inhibitors

Not necessary.

Conditions to avoid Extreme heat and open flame.

Incompatible materials Do not store with explosive materials, flammableand/or toxic

gases, oxidizing, corrosive substances, or materials that may

generate spontaneous combustion. Plastic materials soluble in Xylene.

Dangerous products of

decomposition

Produces noxious gases such as carbon monoxide (CO),

carbon dioxide (CO2) and nitrogen oxides (NOx).

11. TOXICOLOGICAL INFORMATION

Components

PIGMENT INORGANIC CROMATO YELLOW LEAD

Acute toxicity by oral

use

: Test species

DL50 5.000 mg/kg

Observations

Acute toxicity by

inhalation

Test species

Rat

DL50 Observations

Observations

10.000 mg/l

Rat

Acute toxicity by

cutaneous use

: Test species DL50

Data not available.

Data not available.

Acute toxicity (other

methods of administration) Test species

DL50 LC50

Non-standard unit value

Corrosion/irritation of

skin

: Data not available.

Serious eye damage/eye

irritation

: Data not available.

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Respiratory or dermal

sensitivity

: Data not available.

: Data not available. Mutageneses

Carcinogenicity : Presumed to have carcinogenic potential for humans.

Toxic effects for reproduction

: Which admittedly produced adverse effect on reproductive ability or capacity or lucid development of human beings.

Specific target organ toxicity (STOT) - single exposure

: Data not available.

Specific target organ toxicity (STOT) - repeat

exposure

: Substance based on evidence from studies in experimental animals can probably present a potential to be harmful to

human health on repeated exposure

SOLVENT ALKYLBENZENE

Acute toxicity by oral

use

: Test species

DL50 2.908,7 mg/kg

Observations

Acute toxicity by

inhalation

Test species

DL50

Data not available.

Acute toxicity by

cutaneous use

Observations : Test species

DL50

Rabbit

Rat

Rat

Observations

Data not available. Data not available.

Acute toxicity (other methods of

administration)

: Test species

DL50 LC50

Non-standard unit value

Corrosion/irritation of

skin

: Category 3

Serious eye damage/eye

irritation

: Data not available.

Respiratory or dermal

sensitivity

: Data not available.

Mutageneses

: Chemicals considered to induce heritable mutations in human

germ cells

Carcinogenicity

: Presumed to have carcinogenic potential for humans.

Toxic effects for reproduction

Suspected of causing reproductive toxicity or human development

Specific target organ toxicity (STOT) - single

exposure

: Passengers effects on organ target . These are effects that

Specific target organ toxicity (STOT) - repeat

exposure

alter human function for a short period of exposure

: Substance based on evidence from studies in experimental animals can probably present a potential to be harmful to

human health on repeated exposure



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RHEOLOGICAL ADDITIVE

Acute toxicity by oral

use

: Test species

DL50

Data not available.

Acute toxicity by

inhalation

: Test species

Observations

DL50

Observations

Data not available.

Acute toxicity by

cutaneous use

: Test species **DL50**

Observations

Data not available. Data not available.

Acute toxicity (other

methods of administration) : Test species

DL50 LC50

Non-standard unit value

Corrosion/irritation of

skin

: Data not available.

Serious eye damage/eye

irritation

: Data not available.

Respiratory or dermal

sensitivity

: Category 1

Mutageneses : Data not available.

Carcinogenicity : Data not available.

Toxic effects for

reproduction

: Data not available.

Specific target organ toxicity (STOT) - single

exposure

: Data not available.

Specific target organ

toxicity (STOT) - repeat

exposure

: Data not available.

Not classified in terms of toxicity based on the data available.

12. ECOLOGICAL INFORMATION

Stability in soil The product easily infiltrates into the soil

Other toxicological

observations

Data not available.

Ecotoxicity Contaminates the ground water.

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Detrimental to the fauna Detrimental to the flora.

13. DIOSPOSAL AND TREATMENT CONSIDERATIONS

Recommended methods for final disposal

Product : Class I Waste - Dispose of in industrial landfill or a facility

authorized for recycling in accordance with federal, stateor

local regulations

Product Class I Waste - Dispose of in industrial landfill or a facility

authorized for recycling in accordance with federal, stateor

local regulations

Waste : Class I Waste - Dispose of in industrial landfill or a facility

authorized for recycling in accordance with federal, stateor

local regulations

Waste Class I Waste - Dispose of in industrial landfill or a facility

authorized for recycling in accordance with federal, stateor

local regulations

Used packaging : Clean packaging should be sent for recycling. Packaging with

class I waste should be disposed of in industrial landfill or a facility authorized for recycling in accordance with federal,

state or local regulations.

Clean packaging should be sent for recycling. Packaging with class I waste should be disposed of in industrial landfill or a facility authorized for recycling in accordance with federal,

state or local regulations.

14. TRANSPORTATION INFORMATION

Land

ONU : 1263
Class of risk : 3
Risk number : 30
Packaging group : III
Name Tinta

Shipping

ONU : 1263

Class of risk : 3
Packaging group : III
EmS F-E
MFAG 310

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Appropriate name for

dispatch

Tinta

Air transport

ONU : 1263
Class of risk : 3
Packaging group : III

Appropriate name for

dispatch

Tinta

15. REGULATORY INFORMATION

This MSDS (Material Safety Data Sheet) was generated according to the criteria of NBR 14725/2014. (Brazilian standard that defines the GHS).

Specific Regulations for the	Federal Decree No. 2657, July 3rd , 1998.
Chemical Product.	Law No. 12305, August 2nd 2010 (Solid Waste National Policy).
	Decree No. 7404, December 23rd , 2010.
	Ordinance No. 229, May 24th, 2011 - Changes to Regulatory Standard No. 26.
	ABNT NBR 14725: 2014.

16. ADDITIONAL INFORMATION

Acronyms Used:

Legenda:

CAS	Chemical Abstract Service
VO	Organic Vapors
NEC	National Eletrical code/Código Nacional de Eletricidade
IEC:	International Eletrical Commission
ABNT	Brazilian Association of Technical Standards
ACGIH	American Conference of Governmental Industrial Hygienists
TLV	Threshold Limit Values
TLV/TWA	Time Weighted Average
TLV/STEL	Short Term Exposure Limit
TLC/C:	Tolerance Limit - Ceiling Value



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EPI:	Individual Protective Equipment
CA	Approval Certificate
PPRA	Environmental Risk Prevention Program
NR	Regulatory Standard
NFPA	National Fire Protection Agency
mmHg	Millimeters of mercury - pressure unit
DL50	Lethal Dose average
CL50	Lethal Concentration average
ppm	Parts per million
N.d	Not available
A+B	Viscosity of the mixture of component A + component B

Important information, but not specifically described in the previous sections:

This MSDS was prepared based on current knowledge about the handling of the product under normal conditions of use, according to the application specified on the packaging and recommended usage in Section 1 of this MSDS. Any other use of the product involving its combination with other materials, as well as forms of use different from those indicated, are the user's responsibility. The company advises that the handling of any chemical substance requires prior knowledge of its hazards by the user. In the workplace it is responsibility of the company user of the product to provide training of its employees and contractors about the possible risks arising from exposure to the chemical.

We reserve the right to change the information contained in this document without prior notice, due to the improvement and continuous evolution of the product and technical knowledge.

Vertical lines in the left hand margin indicate changes from the current version