

ITEM: 5Z613 --DESICCANT REPLACEMENT

MSDS: A8096

ORDER: 0002016479

LP NUMBER: U155877472-A

MATERIAL SAFETY DATA SHEET (MSDS)

This MSDS should be attached or kept with the respective product with which it is associated.

MATERIAL SAFETY DATA SHEET - A8096

Associated Grainger Items
5Z610, 5Z611, 5Z612, 5Z613, 5Z769, 5Z770

GRACE DAVISON

MATERIAL SAFETY DATA SHEET

03/16/2004

REVIEWED ON: 03/16/2004

1 IDENTIFICATION OF SUBSTANCE

PRODUCT DETAILS:

TRADE NAME: GRADE 47(R*)

ARTICLE NUMBER: 5101542

MANUFACTURER/SUPPLIER:
GRACE DAVISON
W.R. GRACE & CO.-CONN
7500 GRACE DR
COLUMBIA, MD 21044

INFORMATION DEPARTMENT:
HEALTH AND SAFETY (9 AM TO 5 PM-EST): 1-410-531-4764

EMERGENCY INFORMATION:

TRANSPORTATION EMERGENCY (24 HR):
CHEMTREC: 1-800-424-9300

OTHER EMERGENCIES (24 HR): 1-410-531-4000

2 DATA ON COMPONENTS

CAS NO. & LIST OF COMPONENTS

7631-86-9 AMORPHOUS SILICON DIOXIDE,
CHEMICAL PREPARED

7646-79-9 COBALT CHLORIDE T, N
R 49-22-42/43-50/53

ADDITIONAL INFORMATION:
FOR THE WORDING OF THE COMPONENT RISK PHRASES REFER TO SECTION 16.

3 HAZARDS IDENTIFICATION

HAZARD DESCRIPTION:
T: TOXIC

INFORMATION PERTAINING TO PARTICULAR DANGERS FOR MAN AND ENVIRONMENT:
THE PRODUCT HAS TO BE LABELED DUE TO THE CALCULATION PROCEDURE OF THE
*GENERAL CLASSIFICATION GUIDELINE FOR PREPARATIONS OF THE EUROPEAN
UNION* IN THE LATEST VALID VERSION.

R 49: MAY CAUSE CANCER BY INHALATION.

R 52/53:
HARMFUL TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE
AQUATIC ENVIRONMENT

CLASSIFICATION SYSTEM:
THE CLASSIFICATION WAS MADE ACCORDING TO THE LATEST EDITIONS OF
INTERNATIONAL SUBSTANCES LISTS, AND EXPANDED UPON FROM COMPANY AND
LITERATURE DATA.

NFPA RATINGS (SCALE 0 - 4):
HEALTH 2
FIRE 0
REACTIVITY 0

MIS-RATINGS (SCALE 0 - 4)
HEALTH 2*
FIRE 0
REACTIVITY 0

4 FIRST AID MEASURES

AFTER INHALATION: SUPPLY FRESH AIR; CONSULT DOCTOR IN CASE OF COMPLAINTS.

AFTER SKIN CONTACT:
GENERALLY THE PRODUCT DOES NOT IRRITATE THE SKIN.
IMMEDIATELY RINSE WITH WATER.
IF SKIN IRRITATION OCCURS, CONSULT A DOCTOR.

AFTER EYE CONTACT:
IMMEDIATELY FLUSH EYES WITH PLENTY OF WATER FOR AT LEAST 15 MINUTES,
LIFTING LOWER AND UPPER EYELIDS OCCASIONALLY. IF SYMPTOMS OCCUR, CONSULT
DOCTOR.

AFTER SWALLOWING:
IF LARGE AMOUNTS ARE SWALLOWED, WASH MOUTH OUT WITH WATER. GET MEDICAL
AID IF IRRITATION OR SYMPTOMS OCCUR.

5 FIRE FIGHTING MEASURES

SUITABLE EXTINGUISHING AGENTS:
CO2, EXTINGUISHING POWDER OR WATER SPRAY. FIGHT LARGER FIRE WITH ALCOHOL
RESISTANT FOAM. USE FIRE FIGHTING MEASURES THAT SUIT THE ENVIRONMENT.

PROTECTIVE EQUIPMENT: WEAR PROTECTIVE EQUIPMENT.

ADDITIONAL INFORMATION:
DISPOSE OF FIRE DEBRIS AND CONTAMINATED FIRE FIGHTING WATER IN ACCORDANCE
WITH OFFICIAL REGULATIONS.

6 ACCIDENTAL RELEASE MEASURES

PERSON-RELATED SAFETY PRECAUTIONS:
AVOID FORMATION OF DUST.
WEAR PROTECTIVE CLOTHING.

MEASURES FOR ENVIRONMENTAL PROTECTION:
SWEEP UP AND CONTAINERIZE FOR RECLAMATION OR DISPOSAL.

MEASURES FOR CLEANING/COLLECTING:
VACUUMING OR WET SWEEPING MAY BE USED TO AVOID DUST DISPERSAL.
DISPOSE OF THE COLLECTED MATERIAL ACCORDING TO REGULATIONS.

ADDITIONAL INFORMATION:
SEE SECTION 7 FOR INFORMATION ON SAFE HANDLING.
SEE SECTION 8 FOR INFORMATION ON PERSONAL PROTECTION EQUIPMENT.
SEE SECTION 13 FOR DISPOSAL INFORMATION.

7 HANDLING AND STORAGE

HANDLING:

INFORMATION FOR SAFE HANDLING: PREVENT FORMATION OF DUST.

INFORMATION ABOUT PROTECTION AGAINST EXPLOSIONS AND FIRES:
THE PRODUCT IS NOT FLAMMABLE.
WHEN POURING POWDER INTO A CONTAINER OF FLAMMABLE LIQUID, GROUND BOTH
CONTAINERS ELECTRICALLY TO PREVENT A STATIC ELECTRIC SPARK.

STORAGE:

FURTHER INFORMATION ABOUT STORAGE CONDITIONS: KEEP RECEPTACLE TIGHTLY
SEALED.

CLASS ACCORDING TO REGULATION ON FLAMMABLE LIQUIDS: NONE APPLICABLE

8 EXPOSURE CONTROLS AND PERSONAL PROTECTION

COMPONENTS WITH LIMIT VALUES THAT REQUIRE MONITORING AT THE WORKPLACE:

7631-86-9 AMORPHOUS SILICON DIOXIDE, CHEMICAL PREPARED:

PEL:
80/(*SiO2) MG/M3
OSHA TWA FOR AMORPHOUS SILICA

REL:
6 MG/M3
NIOSH TWA

TLV:
10* 5** MG/M3
ACGIH TWA

*TOTAL DUST
**RESPIRABLE FRACTION

7646-79-9 COBALT CHLORIDE:

PEL:
0.1* MG/M3
OSHA TWA

*FOR METAL DUST & FUME, AS Co

REL:
0.05* MG/M3
NIOSH TWA

*FOR METAL DUST & FUME, AS Co

TLV:
0.02 MG/M3
ACGIH TWA AS Co

PERSONAL PROTECTIVE EQUIPMENT:

GENERAL PROTECTIVE AND HYGIENIC MEASURES:
THE USUAL PRECAUTIONARY MEASURES FOR HANDLING CHEMICALS SHOULD BE FOLLOWED.

BREATHING EQUIPMENT:
IF EXPOSURE LIMIT IS EXCEEDED, A SUITABLE RESPIRATORY PROTECTIVE DEVICE IS
RECOMMENDED.

PROTECTION OF HANDS: PROTECTIVE GLOVES

THE GLOVE MATERIAL HAS TO BE IMPERMEABLE AND RESISTANT TO THE PRODUCT/THE
SUBSTANCE/THE PREPARATION.

EYE PROTECTION: SAFETY GLASSES
BODY PROTECTION: PROTECTIVE WORK CLOTHING

9 PHYSICAL AND CHEMICAL PROPERTIES

GENERAL INFORMATION:
FORM: BEADS
COLOR: BLUE
ODOR: ODORLESS

CHANGE IN CONDITION:
MELTING POINT/MELTING RANGE: UNDETERMINED.

FLASH POINT: NOT APPLICABLE.

AUTO IGNITING: PRODUCT IS NOT SELF-IGNITING.

DANGER OF EXPLOSION: PRODUCT DOES NOT PRESENT AN EXPLOSION HAZARD.

DENSITY: NOT DETERMINED.

BULK DENSITY AT 20 DEG. C (68 DEG. F): 25 - 35 LBS/FT³

SOLUBILITY IN / MISCIBILITY WITH WATER: INSOLUBLE.

pH-VALUE AT 20 DEG. C (68 DEG. F): 4.5 - 6.5

10 STABILITY AND REACTIVITY

THERMAL DECOMPOSITION / CONDITIONS TO BE AVOIDED:
NO DECOMPOSITION IF USED ACCORDING TO SPECIFICATIONS.

DANGEROUS REACTIONS: REACTS WITH HYDROGEN FLUORIDE

DANGEROUS PRODUCTS OF DECOMPOSITION: NO DANGEROUS DECOMPOSITION PRODUCTS KNOWN.

11 TOXICOLOGY INFORMATION

ACUTE TOXICITY:

LD/LC50 VALUES THAT ARE RELEVANT FOR CLASSIFICATION:

7631-86-9 AMORPHOUS SILICON DIOXIDE, CHEMICAL PREPARED:

ORAL LD50: 10000 MG/KG (RAT)

DERMAL LD50:
>5000 MG/KG (RABBIT)
OECD 402

INHALATIVE LC50: >0.139 MG/L/14H (RAT)

7646-79-9 COBALT CHLORIDE:

ORAL LD50: 80 MG/KG (RAT)

PRIMARY IRRITANT EFFECT:

ON THE SKIN: MAY CAUSE IRRITATION WITH DRYNESS AND ABRASION.

IN THE EYE: MAY CAUSE ABRASION, REDNESS AND PAIN.

SENSITIZATION: NO SENSITIZING EFFECTS KNOWN.

SUBACUTE TO CHRONIC TOXICITY:

AMORPHOUS SILICON DIOXIDE, CHEMICALLY PREPARED:
NO NEGATIVE EFFECTS WERE DETERMINED DURING TESTS FOR CHRONIC ORAL TOXICITY, CARCINOGENICITY, TERATOGENICITY AND FERTILITY. NO IRREVERSIBLE CHANGES AND NO SYMPTOMS OF SILICOSIS WERE DETERMINED DURING TESTS FOR CHRONIC INHALATIVE TOXICITY.

ADDITIONAL TOXICOLOGICAL INFORMATION:
THE PRODUCT IS NOT SUBJECT TO CLASSIFICATION ACCORDING TO INTERNALLY APPROVED CALCULATION METHODS FOR PREPARATIONS:
WHEN USED AND HANDLED ACCORDING TO SPECIFICATIONS, THE PRODUCT DOES NOT HAVE ANY HARMFUL EFFECTS ACCORDING TO OUR EXPERIENCE AND THE INFORMATION PROVIDED TO US.

12 ECOLOGY INFORMATION

ECOTOXICAL EFFECTS:

AQUATIC TOXICITY:

FISH TOXICITY:

7631-86-9 AMORPHOUS SILICON DIOXIDE, CHEMICAL PREPARED:

LC50 (96 H):
>10000 MG/L (BRACHYDANIO RERIO)
OECD 202

WATER FLEA TOXICITY:

7631-86-9 AMORPHOUS SILICON DIOXIDE, CHEMICAL PREPARED:

EC50 (24 H):
>1000 MG/L (DAPHNIA MAGNA)
OECD 202

GENERAL NOTES: GENERALLY NOT HAZARDOUS FOR WATER

13 DISPOSAL CONSIDERATIONS

PRODUCT:

RECOMMENDATION:

WHATEVER CANNOT BE SAVED FOR RECOVERY OR RECYCLING SHOULD BE MANAGED IN AN APPROPRIATE AND APPROVED WASTE DISPOSAL FACILITY. PROCESSING, USE OR CONTAMINATION OF THIS PRODUCT MAY CHANGE THE WASTE MANAGEMENT OPTIONS. STATE AND LOCAL DISPOSAL REGULATIONS MAY DIFFER FROM FEDERAL DISPOSAL REGULATIONS. DISPOSE OF CONTAINER AND UNUSED CONTENTS IN ACCORDANCE WITH FEDERAL, STATE AND LOCAL REQUIREMENTS.

14 TRANSPORT INFORMATION

TRANSPORT/ADDITIONAL INFORMATION:

NOT REGULATED AS HAZARDOUS GOODS BY DOT, ADR, IMO, OR IATA.

15 REGULATIONS

SARA:

SECTION 355 (EXTREMELY HAZARDOUS SUBSTANCES):
NONE OF THE INGREDIENTS ARE LISTED.

SECTION 313 (SPECIFIC TOXIC CHEMICAL LISTINGS):

7646-79-9 COBALT CHLORIDE

TSCA (TOXIC SUBSTANCES CONTROL ACT): ALL INGREDIENTS ARE LISTED.

PROPOSITION 65:

CHEMICALS KNOWN TO CAUSE CANCER: NONE OF THE INGREDIENTS ARE LISTED.

CHEMICALS KNOWN TO CAUSE REPRODUCTIVE TOXICITY:
NONE OF THE INGREDIENTS ARE LISTED.

CARCINOGENICITY CATEGORIES:

EPA (ENVIRONMENTAL PROTECTION AGENCY): NONE OF THE INGREDIENTS ARE LISTED.

IARC (INTERNATIONAL AGENCY FOR RESEARCH ON CANCER):

7646-79-9 COBALT CHLORIDE 2B

NTP (NATIONAL TOXICOLOGY PROGRAM): NONE OF THE INGREDIENTS ARE LISTED.

TLV (THRESHOLD LIMIT VALUE ESTABLISHED BY ACGIH):

7646-79-9 COBALT CHLORIDE A3

MAK (GERMAN MAXIMUM WORKPLACE CONCENTRATION):

7631-86-9 AMORPHOUS SILICON DIOXIDE, CHEMICAL PREPARED JA

NIOSH-CA (NATIONAL INSTITUTE FOR OCCUPATIONAL SAFETY AND HEALTH):
NONE OF THE INGREDIENTS ARE LISTED.

OSHA-CA (OCCUPATIONAL SAFETY & HEALTH ADMINISTRATION):
NONE OF THE INGREDIENTS ARE LISTED.

CANADIAN DSL: ALL INGREDIENTS ARE LISTED.

CANADIAN NDSL: NONE OF THE INGREDIENTS ARE LISTED.

JAPAN EWCS: ALL INGREDIENTS ARE LISTED.

KOREA ECL: ALL INGREDIENTS ARE LISTED.

PHILIPPINES PICCS: ALL INGREDIENTS ARE LISTED.

AUSTRALIA AICS: ALL INGREDIENTS ARE LISTED.

EUROPEAN EINECS: ALL INGREDIENTS ARE LISTED.

PRODUCT RELATED HAZARD INFORMATION:
OBSERVE THE GENERAL SAFETY REGULATIONS WHEN HANDLING CHEMICALS.
THE PRODUCT IS NOT SUBJECT TO IDENTIFICATION REGULATIONS ACCORDING TO DIRECTIVES ON HAZARDOUS MATERIALS.

HAZARD SYMBOLS:

T: TOXIC

HAZARD-DETERMINING COMPONENTS OF LABELING: COBALT CHLORIDE

RISK PHRASES:

49: MAY CAUSE CANCER BY INHALATION.

52/53:

HARMFUL TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT

SAFETY PHRASES:

53: AVOID EXPOSURE - OBTAIN SPECIAL INSTRUCTIONS BEFORE USE.

16 OTHER INFORMATION

THIS INFORMATION IS BASED ON OUR PRESENT KNOWLEDGE. HOWEVER, THIS SHALL NOT CONSTITUTE A GUARANTEE FOR ANY SPECIFIC PRODUCT FEATURES AND SHALL NOT ESTABLISH A LEGALLY VALID CONTRACTUAL RELATIONSHIP.

COMPONENT HAZARD SYMBOLS:

T: TOXIC

N: DANGEROUS FOR THE ENVIRONMENT

COMPONENT RISK PHRASES

22: HARMFUL IF SWALLOWED.

42/43: MAY CAUSE SENSITIZATION BY INHALATION AND SKIN CONTACT.

49: MAY CAUSE CANCER BY INHALATION.