



# SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of:  
Regulation (EC) No. 1907/2006 and Regulation (EC) No. 1272/2008

Product name PLUS-FIFTY® C Dry Chemical

Revision date 12-Oct-2023

Revision Number 5

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

### 1.1. Product identifier

Product code 009336  
Product name PLUS-FIFTY® C Dry Chemical  
Pure substance/mixture Mixture

### Other means of identification

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

Recommended use Fire extinguishing agent  
Uses advised against Consumer use

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

#### Company Name

Tyco Fire Suppression & Building Products  
1 Kopersteden  
TJ Enschede, Netherlands.  
Post Code: 7547  
Telephone: +31 53-428-4444

For further information, please contact

E-mail address psra@jci.com

### 1.4. Emergency telephone number

Emergency telephone - CHEMTREC 001-800-424-9300 or 001-703-527-3887	
Austria	
Belgium	Poison Information Centre +32 (0)70 245 245
Bulgaria	
Croatia	
Greece	
Czech Republic	
Denmark	
Finland	
France	
Germany	BERLIN Poison Control Center of the Charité - Berlin University of Medicine CBF, House VIII (Economy Building), UG Hindenburgdamm 30 12203 Berlin Tel.: 030/19240 (emergency call), Fax: 030/4505 69 901 mail@giftnotruf.de poisonnotruf.charite.de



Hungary	
Lithuania	
Italy	
Netherlands	NVIC+31 (0)30 274 8888
Norway	Norwegian Poison Information Centre+47 22 59 13 00
Portugal	
slovakia	
China	
Spain	
Sweden	
Luxembourg	+32-70 245 2458002 5500, of the Grand Duchy of Luxembourg

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

Regulation (EC) No 1272/2008

This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [CLP]

### 2.2. Label elements

This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [CLP]

### Hazard statements

This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [CLP]

### 2.3. Other hazards

The components in this formulation do not meet the criteria for classification as PBT or vPvB.

**Endocrine Disruptor Information** This product does not contain any known or suspected endocrine disruptors.

## SECTION 3: Composition/information on ingredients

### 3.1 Substances

Not applicable

### 3.2 Mixtures

The product contains no substances which at their given concentration, are considered to be hazardous to health

### Full text of H- and EUH-phrases: see section 16

#### Acute Toxicity Estimate

If LD50/LC50 data is not available or does not correspond to the classification category, then the appropriate conversion value from CLP Annex I, Table 3.1.2, is used to calculate the acute toxicity estimate (ATEmix) for classifying a mixture based on its components

This product does not contain candidate substances of very high concern at a concentration  $\geq 0.1\%$  (Regulation (EC) No. 1907/2006 (REACH), Article 59)



**SECTION 4: First aid measures**

**4.1. Description of first aid measures**

Inhalation	Remove to fresh air.
Eye contact	Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a doctor.
Skin contact	Wash skin with soap and water. In the case of skin irritation or allergic reactions see a doctor.
Ingestion	If swallowed Call a POISON CENTER or doctor/physician if you feel unwell

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

Symptoms	None known
Effects of Exposure	No information available.

**4.3. Indication of any immediate medical attention and special treatment needed**

Note to doctors	Treat symptomatically.
-----------------	------------------------

**SECTION 5: Firefighting measures**

**5.1. Extinguishing media**

Suitable Extinguishing Media	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Large Fire	CAUTION: Use of water spray when fighting fire may be inefficient.
Unsuitable extinguishing media	Do not scatter spilled material with high pressure water streams.

**5.2. Special hazards arising from the substance or mixture**

Specific hazards arising from the chemical	No information available.
--	---------------------------

**5.3. Advice for firefighters**

Special protective equipment and precautions for fire-fighters	Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.
--	--

**SECTION 6: Accidental release measures**

**6.1. Personal precautions, protective equipment and emergency procedures**

Personal precautions	Ensure adequate ventilation.
----------------------	------------------------------



**For emergency responders** Use personal protection recommended in Section 8.

**6.2. Environmental precautions**

**Environmental precautions** See Section 12 for additional Ecological Information.

**6.3. Methods and material for containment and cleaning up**

**Methods for containment** Cover powder spill with plastic sheet or tarp to minimise spreading. Do not touch or walk through spilled material. Prevent dust cloud.

**Methods for cleaning up** Avoid generation of dust. Do not dry sweep dust. Wet dust with water before sweeping or use a vacuum to collect dust. Pick up and transfer to properly labelled containers. Use personal protective equipment as required.

**Prevention of secondary hazards** Clean contaminated objects and areas thoroughly observing environmental regulations.

**6.4. Reference to other sections**

**Reference to other sections** See section 8 for more information. See section 13 for more information.

**SECTION 7: Handling and storage**

**7.1. Precautions for safe handling**

**Advice on safe handling** Avoid contact with skin and eyes. Avoid generation of dust. Do not breathe dust. Ensure adequate ventilation. Fine dust dispersed in air, in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard.

**General hygiene considerations** Handle in accordance with good industrial hygiene and safety practice.

**7.2. Conditions for safe storage, including any incompatibilities**

**Storage Conditions** Store in a well-ventilated place. Keep cool Keep container tightly closed Guard against dust accumulation of material. Use care in handling/storage

**Storage class (TRGS 510)** Not determined.

**7.3. Specific end use(s)**

**Specific use(s)**  
Fire extinguishing agent.

**Risk Management Methods (RMM)** The information required is contained in this Safety Data Sheet.

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

**8.1. Control parameters**

**Exposure Limits** This product, as supplied, does not contain any hazardous materials with occupational

exposure limits established by the region specific regulatory bodies

**Derived No Effect Level (DNEL) - Workers**

Chemical name	Oral	Dermal	Inhalation
Calcium carbonate 471-34-1	-	-	6.36 mg/m <sup>3</sup> [5] [6]

**Notes**

[5] Local health effects.  
[6] Long term.

**Derived No Effect Level (DNEL) - General Public**

Chemical name	Oral	Dermal	Inhalation
Calcium carbonate 471-34-1	6.1 mg/kg bw/day [4] [6] 6.1 mg/kg bw/day [4] [7]	-	1.06 mg/m <sup>3</sup> [5] [6]
Magnesium carbonate 546-93-0	7.23 mg/kg bw/day [4] [6] 7.23 mg/kg bw/day [4] [7]	-	-

**Notes**

[4] Systemic health effects.  
[5] Local health effects.  
[6] Long term.  
[7] Short term.

**Predicted No Effect Concentration (PNEC)**

Chemical name	Freshwater sediment	Marine sediment	Sewage treatment	Soil	Food chain
Calcium carbonate 471-34-1	-	-	100 mg/L	-	-

**8.2. Exposure controls**

**Engineering controls** Ensure adequate ventilation, especially in confined areas.

**Personal protective equipment**

**Eye/face protection** No special protective equipment required.

**Respiratory protection** No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

**General hygiene considerations** Handle in accordance with good industrial hygiene and safety practice.



Environmental exposure controls No information available.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state	Powder
Colour	light blue
Odour	None.
Odour threshold	No information available

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
Melting point / freezing point	No data available	None known
Initial boiling point and boiling range	No data available	None known
Flammability	No data available	None known
Flammability Limit in Air		None known
Upper flammability or explosive limits	No data available	
Lower flammability or explosive limits	No data available	
Flash point	No data available	None known
Autoignition temperature	No data available	None known
Decomposition temperature		None known
pH	No data available	None known
pH (as aqueous solution)	No data available	None known
Kinematic viscosity	No data available	None known
Dynamic viscosity	No data available	None known
Water solubility	No data available	None known
Solubility(ies)	No data available	None known
Partition coefficient	No data available	None known
Vapour pressure	No data available	None known
Relative density	No data available	None known
Bulk density	No data available	
Liquid Density	No data available	
Relative vapour density	No data available	None known
Particle characteristics		
Particle Size	No information available	
Particle Size Distribution	No information available	

### 9.2. Other information

9.2.1. Information with regards to physical hazard classes  
Not applicable

9.2.2. Other safety characteristics  
No information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

Reactivity	No information available.
Remarks	No data available.



### 10.2. Chemical stability

**Stability** Stable under normal conditions.

#### **Explosion data**

**Sensitivity to mechanical impact** None.

**Sensitivity to static discharge** None.

### 10.3. Possibility of hazardous reactions

**Possibility of hazardous reactions** None under normal processing.

**Hazardous polymerisation** Hazardous polymerisation does not occur.

### 10.4. Conditions to avoid

**Conditions to avoid** Extremes of temperature and direct sunlight.

### 10.5. Incompatible materials

**Incompatible materials** Strong acids. Strong bases. Strong oxidising agents.

### 10.6. Hazardous decomposition products

**Hazardous decomposition products** None known based on information supplied.

## **SECTION 11: Toxicological information**

### 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

#### Information on likely routes of exposure

##### **Product Information**

**Inhalation** Specific test data for the substance or mixture is not available.

**Eye contact** Specific test data for the substance or mixture is not available.

**Skin contact** Specific test data for the substance or mixture is not available.

**Ingestion** Specific test data for the substance or mixture is not available.

#### Symptoms related to the physical, chemical and toxicological characteristics

**Symptoms** No information available.

#### Acute toxicity

##### **Numerical measures of toxicity**

##### **Component Information**

#### Delayed and immediate effects as well as chronic effects from short and long-term exposure



**Acute toxicity**

**Skin corrosion/irritation** No information available.

**Serious eye damage/eye irritation** No information available.

**Respiratory or skin sensitisation** No information available.

**Germ cell mutagenicity** No information available.

**Carcinogenicity** No information available.

**Reproductive toxicity** No information available.

**STOT - single exposure** No information available.

**STOT - repeated exposure** No information available.

**Aspiration hazard** No information available.

**11.2. Information on other hazards**

**11.2.1. Endocrine disrupting properties**

**Endocrine disrupting properties** No information available.

**11.2.2. Other information**

**Other adverse effects** No information available.

**SECTION 12: Ecological information**

**12.1. Toxicity**

**Ecotoxicity** The environmental impact of this product has not been fully investigated.

**12.2. Persistence and degradability**

**Persistence and degradability** No information available.

**12.3. Bioaccumulative potential**





**12.4. Mobility in soil**

Mobility in soil No information available.

**12.5. Results of PBT and vPvB assessment**

PBT and vPvB assessment The product does not contain any substance(s) classified as PBT or vPvB above the threshold of declaration.

**12.6. Endocrine disrupting properties**

Endocrine disrupting properties No information available.

**12.7. Other adverse effects**

No information available.

**SECTION 13: Disposal considerations**

**13.1. Waste treatment methods**

Waste from residues/unused products Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

Contaminated Packaging Do not re-use container

**SECTION 14: Transport information**

**IATA**

14.1 UN number or ID number Not regulated  
14.2 UN proper shipping name Not regulated  
14.3 Transport hazard class(es) Not regulated  
14.4 Packing group Not regulated  
14.5 Environmental hazards Not applicable  
14.6 Special precautions for user  
Special Provisions None

**IMDG**

14.1 UN number or ID number Not regulated  
14.2 UN proper shipping name Not regulated  
14.3 Transport hazard class(es) Not regulated  
14.4 Packing group Not regulated  
14.5 Environmental hazards Not applicable  
14.6 Special precautions for user  
Special Provisions None  
14.7 Maritime transport in bulk according to IMO instruments No information available

**RID**

14.1 UN number or ID number Not regulated  
14.2 UN proper shipping name Not regulated



14.3 Transport hazard class(es)	Not regulated
14.4 Packing group	Not regulated
14.5 Environmental hazards	Not applicable
14.6 Special precautions for user	
Special Provisions	None

**ADR**

14.1 UN number or ID number	Not regulated
14.2 UN proper shipping name	Not regulated
14.3 Transport hazard class(es)	Not regulated
14.4 Packing group	Not regulated
14.5 Environmental hazards	Not applicable
14.6 Special precautions for user	
Special Provisions	None

**SECTION 15: Regulatory information**

**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

National regulations

**Germany**

Water hazard class (WGK) slightly hazardous to water (WGK 1)

**European Union**

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work.

**Authorisations and/or restrictions on use:**

This product does not contain substances subject to authorisation (Regulation (EC) No. 1907/2006 (REACH), Annex XIV) This product does not contain substances subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII)

**Persistent Organic Pollutants**

Not applicable

**Ozone-depleting substances (ODS) regulation (EC) 1005/2009**

Not applicable

**EU - Plant Protection Products (1107/2009/EC)**

International Inventories

TSCA	Complies
DSL/NDSL	Complies
EINECS/ELINCS	Complies
ENCS	Does not comply



IECSC	Complies
KECL	Does not comply
PICCS	Complies
AIIC	Complies
NZIoC	Complies

**Legend:**

<b>TSCA</b>	- United States Toxic Substances Control Act Section 8(b) Inventory
<b>DSL/NDSL</b>	- Canadian Domestic Substances List/Non-Domestic Substances List
<b>EINECS/ELINCS</b>	- European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
<b>ENCS</b>	- Japan Existing and New Chemical Substances
<b>IECSC</b>	- China Inventory of Existing Chemical Substances
<b>KECL</b>	- Korean Existing and Evaluated Chemical Substances
<b>PICCS</b>	- Philippines Inventory of Chemicals and Chemical Substances
<b>AIIC</b>	- Australian Inventory of Industrial Chemicals
<b>NZIoC</b>	- New Zealand Inventory of Chemicals

**15.2. Chemical safety assessment**

**Chemical Safety Report** No information available

**SECTION 16: Other information****Key or legend to abbreviations and acronyms used in the safety data sheet****Legend**

SVHC: Substances of Very High Concern for Authorisation:  
PBT: Persistent, Bioaccumulative, and Toxic (PBT) Chemicals  
vPvB: Very Persistent and very Bioaccumulative (vPvB) Chemicals

**Legend Section 8: Exposure controls/personal protection**

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value	*	Skin designation
+	Sensitisers		

Classification procedure	
Classification according to Regulation (EC) No. 1272/2008 [CLP]	Method Used
Acute oral toxicity	Calculation method
Acute dermal toxicity	Calculation method
Acute inhalation toxicity - gas	On basis of test data
Acute inhalation toxicity - vapour	On basis of test data
Acute inhalation toxicity - dust/mist	On basis of test data
Skin corrosion/irritation	Calculation method
Serious eye damage/eye irritation	Calculation method
Respiratory sensitisation	Calculation method
Skin sensitisation	Calculation method
Mutagenicity	Calculation method
Carcinogenicity	Calculation method
Reproductive toxicity	Calculation method
STOT - single exposure	Calculation method
STOT - repeated exposure	Calculation method
Acute aquatic toxicity	Calculation method
Chronic aquatic toxicity	Calculation method



Aspiration hazard	Calculation method
Ozone	Calculation method

This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006 COMMISSION REGULATION (EU) 2020/878 amending Annex II to Regulation (EC) No 1907/2006 and Annex VIII Regulation (EC) No. 1272/2008

**Key literature references and sources for data used to compile the SDS**

Agency for Toxic Substances and Disease Registry (ATSDR)  
U.S. Environmental Protection Agency ChemView Database  
European Food Safety Authority (EFSA)  
European Chemicals Agency (ECHA) Committee for Risk Assessment (ECHA\_RAC)  
European Chemicals Agency (ECHA) (ECHA\_API)  
EPA (Environmental Protection Agency)  
Acute Exposure Guideline Level(s) (AEGl(s))  
U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act  
U.S. Environmental Protection Agency High Production Volume Chemicals  
Food Research Journal  
Hazardous Substance Database  
International Uniform Chemical Information Database (IUCLID)  
National Institute of Technology and Evaluation (NITE)  
Australian National Industrial Chemicals Notification and Assessment Scheme (NICNAS)  
NIOSH (National Institute for Occupational Safety and Health)  
National Library of Medicine's ChemID Plus (NLM CIP)  
National Library of Medicine's PubMed database (NLM PUBMED)  
National Toxicology Program (NTP)  
New Zealand's Chemical Classification and Information Database (CCID)  
Organisation for Economic Co-operation and Development Environment, Health, and Safety Publications  
Organisation for Economic Co-operation and Development High Production Volume Chemicals Programme  
Organisation for Economic Co-operation and Development Screening Information Data Set  
World Health Organization

Revision date 12-Oct-2023

**Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

**End of Safety Data Sheet**