SAFETY DATA SHEET

[According to Regulation (EC) No. 1907/2006 (REACH)]

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

1.1 Product identifier:

Trade name: ABC Powder Fire Extinguisher

(This SDS covers the mixture Adex K and gas used as the propellant in pressurized container)

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

Relevant identified uses: fire extinguisher for use on class A, B and C fires.
Uses advised against: not determined.

1.3 Details of the supplier of the safety data sheet

Manufacturer: UTC CCS Manufacturing Polska Sp. z o.o.
Address: ul. Kolejowa 24, 39-100 Ropczyce, Poland
Telephone number: +48 17 221 02 02
Fax: +48 17 221 02 48
e-mail address of competent person responsible for the SDS: msds-rop@fs.utc.com

1.4 Emergency telephone number

European Union emergency phone number:
112 - in case of poisoning - ask for Poison Information (24 hours a day, 7 days a week).

National Poisons Information Centres: see SECTION 16.

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

2.1.1 Classification according to Regulation (EC) No 1272/2008 (CLP)

Press. Gas, H280

2.1.2 Additional information

For full text of Hazard- and EU Hazard-statements: see SECTION 16.

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008 (CLP)

Hazard pictograms:

Signal word:
Warning

Hazard statements:
H280: Contents under pressure; may explode if heated.

Precautionary statements:
P403: Store in a well-ventilated place.

Further information:
Explosion risk in case of fire.

Supplemental Hazard information (EU):
Not applicable.

2.3 Other hazards

Product does not contain ingredients, which meet criteria for PBT or vPvB in accordance with Annex XIII of REACH Regulation.

SECTION 3: Composition / information on ingredients

3.1 Substances

Not applicable

3.2 Mixtures

Further information:
Product contains gas under pressure.
Components classified as not hazardous according to Regulation (EC) No 1272/2008 (CLP).
Mixture contain substance with national limit values, for more information: see SECTION 8.

SECTION 4: First aid measures

4.1 Description of first aid measures

General notes: ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.
Following inhalation: dust irritates the respiratory system, and may cause coughing and difficulties in breathing. If symptomatic, move to fresh air. Get medical attention if symptoms persist.
Following skin contact: take off contaminated clothes. Wash contaminated skin with water and soap and rinse thoroughly. Consult a doctor if disturbing symptom occur.
Following eye contact: dust in the eyes: do not rub eyes. Flush thoroughly with water. If irritation occurs, get medical assistance.
Following ingestion: do not induce vomiting. Contact a doctor if disturbing symptom occur. Never give anything by mouth to an unconscious person.
Self-protection of the first aider: use personal protective equipment as required.

4.2 Most important symptoms and effects, both acute and delayed

Skin contact: possible dryness and redness in case of prolonged or repeated contact.
Eye contact: possible redness, tearing, temporary blurred vision.
Inhalation: exposure to high concentrations of dusts may cause respiratory irritation, in high concentrations of gas may cause asphyxiation.
Ingestion: possible abdominal pains, nausea, vomiting and diarrhea after ingestion of large amount of the product.

4.3 Indication of any immediate medical attention and special treatment needed

Provide general supportive measures and treat symptomatically.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media: this product is not flammable. Use extinguishing agent suitable for type of surrounding fire, product is used for fire extinguishing.
Unsuitable extinguishing media: none, product is used for fire extinguishing.

5.2 Special hazards arising from the substance or mixture

Hazardous combustion products: there are no special hazards arising from the mixture during fire – product is used for fire extinguishing.

5.3 Advice for firefighters

Protection during firefighting: do not enter fire area without proper protective equipment.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Limit the access for the outsiders into the breakdown area, until the suitable cleaning operations are completed. Ensure that effects of the breakdown are removed only by qualified personnel. In case of large spills, isolate the exposed area. Avoid direct contact with skin and eyes. Ensure adequate ventilation. Wear personal protective

equipment. Do not inhale dusts of the product.

6.2 Environmental precautions

Do not let the product to enter ground waters, drainage system, sewage and soil. Notify relevant emergency services.

6.3 Methods and material for containment and cleaning up

Collect spilled product mechanically, avoid dusting (e.g. using industrial vacuum cleaner with HEPA filter) and place it in properly labelled containers. Treat collected material as waste and pass it for disposal. Clean and ventilate contaminated place. Do not use water – it can cause corrosion.

6.4 Reference to other sections

Appropriate conduct with waste product – section 13. Personal protection equipment – section 8.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Handle in accordance with good occupational hygiene and safety practices. Do not eat, drink or smoke in the workplace. Before breaks and after work wash hands. Ensure adequate ventilation. Avoid eyes and skin contamination. Avoid dust formation. Do not inhale dusts of the product. Wear personal protective equipment.

7.2 Conditions for safe storage, including any incompatibilities

Storage temperature -30°C / +60°C. Protect from direct sunlight. Keep away from incompatible materials (see subsection 10.5).

7.3 Specific end use(s)

No information about uses other than mentioned in subsection 1.2.

SECTION 8: Exposure controls / personal protection

8.1 Control parameters

Substance: Mica (CAS number: 12001-26-2)

Country	Limit value - Eight hours		Limit value - Short term		Legal basis
	ppm	mg/m^3	ppm	mg/m^3	
Belgium	-	3 (respirable)	-	-	Federal Public Service Employment - List of limit values for exposure to chemical agents.
Bulgaria	-	6 (inhalable) 3 (respirable	-	-	Ordinance No. 13 of 30 December 2003 to protect workers from the risks related to exposure to chemical agents at work.
Croatia	-	10 (inhalable) 0,8 (respirable)	-	-	Occupational Exposure Limits. Pursuant to Article 12 Paragraph 1 of the Law on Protection at Work ("Official Gazette", Nos. 59/96, 94/96, 114/03, 100/04, 86/08 and 116/08), the Minister of Economy, Labour and Entrepreneurship. Exposure limits set forth Hazardous Substances At Work And A Biological Limit Values.

Country	Limit value - Eight hours		Limit value - Short term		Legal basis
	ppm	mg/m^3	ppm	mg/m^3	
Great Britain	-	10 (inhalable) 0,8 (respirable)	-	-	Health and Safety Executive - EH40 (Second edition, published 2011) Workplace exposure limits.
Ireland	-	10 (inhalable) 0,8 (respirable)	-	-	Ireland's National Authority for Occupational Safety and Health in Schedule 1 to the 2002 Code of Practice for the Safety, Health and Welfare at Work (Chemical Agents) Regulations, 2001.
Italy	-	3 (respirable)	-	-	Limit values Italy: Legislative Decree of the Government 277, the Legislative Decree 66 of 15/08/1991, 25/02/2000, 26/02/2004 Ministerial Decree.
Spain	-	3 (respirable)	-	-	Ministry of Employment and Social Security Occupational exposure limits for chemical agents in Spain (2016).
Switzerland	-	3 (respirable)	-	-	SUVA - limits at the workplace 2016.

For more information, please check any national occupational exposure limit values in your country.

Biological limit values: no biological exposure limits noted for the ingredient(s).
Recommended monitoring procedures: follow standard monitoring procedures.

8.2 Exposure controls

8.2.1 Appropriate engineering controls

Ensure adequate ventilation, especially in confined areas.
Observe good occupational hygiene and safety practices. Do not eat, drink or smoke when using the product. Wash hands thoroughly before breaks and after work. Avoid eyes and skin contamination. Ensure adequate general and/or local ventilation in the workplace.

8.2.2 Personal protection equipment

Personal protective equipment must meet requirements of directive 89/686/CE. Employer is obliged to ensure equipment adequate to activities carried out, with quality demands, cleaning and maintenance.
Hand and body protection: under normal conditions of work is not required.
Eye and face protection: wear safety glasses with side shields (or goggles), if risk assessment indicates that it is necessary.
Respiratory protection: in case of insufficient ventilation, wear suitable respiratory equipment.

8.2.3 Environmental exposure controls

Avoid release to the environment, do not enter the sewage system. Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

(This SDS covers the mixture and gas used as the propellant in pressurized container)

Basic physical and chemical properties of:

		mixture
a)	**physical state/form:**	powder
b)	**colour:**	various
c)	**odour:**	odourless
d)	**odour threshold:**	not determined
e)	**pH:**	5,1 (5% water solution)
f)	**melting point/freezing point:**	not determined
g)	**initial boiling point and boiling range:**	not determined
h)	**flash point:**	not applicable
i)	**evaporation rate:**	not determined
j)	**flammability (solid, gas):**	product is not flammable
k)	**upper/lower flammability or explosive limits:**	not applicable
l)	**vapour pressure:**	not applicable
m)	**vapour density:**	not applicable
n)	**density:**	0,80 - 0,94 g/cm^3
o)	**solubility(ies):**	insoluble in water
p)	**partition coefficient n-octanol/water:**	not determined
q)	**auto-ignition temperature:**	not applicable
r)	**decomposition temperature:**	190°C
s)	**explosive properties:**	not display
t)	**oxidising properties:**	not display
u)	**viscosity:**	not applicable

9.2 Other information

No additional test results.
Product contains gas under pressure.

SECTION 10: Stability and reactivity

10.1 Reactivity

Product is feebly reactive. It does not undergo hazardous polymerization. See also subsections 10.3 and 10.5.

10.2 Chemical stability

The product is stable under normal conditions of handling and storage.

10.3 Possibility of hazardous reactions

Hazardous reactions are not known.

10.4 Conditions to avoid

Avoid elevated temperatures, sources of fire and heat.

10.5 Incompatible materials

Strong oxidizers, strong bases, strong acids, alkali metals, magnesium.

10.6 Hazardous decomposition products

There are no known hazardous decomposition products.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity: based on available data, the classification criteria are not met.
Skin corrosion/irritation: based on available data, the classification criteria are not met.
Serious eye damage/irritation: based on available data, the classification criteria are not met.
Respiratory or skin sensitization: based on available data, the classification criteria are not met.
Germ cell mutagenicity: based on available data, the classification criteria are not met. Analysis of product composition does not indicate presence of components which can cause mutagenic effect.
Carcinogenicity: based on available data, the classification criteria are not met. Product does not contain components which are carcinogenic.
Reproductive toxicity: based on available data, the classification criteria are not met.
STOT-single exposure: based on available data, the classification criteria are not met.
STOT-repeated exposure: based on available data, the classification criteria are not met.
Aspiration hazard: based on available data, the classification criteria are not met.

Other information: mixture may cause mechanical eye, skin and respiratory tract irritation. The mixture does not meet the classification criteria: aspiration hazard, irritation to skin and eyes, according to CLP Regulation.

SECTION 12: Ecological information

12.1 Toxicity

Product is not classified as hazardous for the environment.

12.2 Persistence and degradability

Product is mostly a mixture of inorganic substances which do not undergo biodegradation.

12.3 Bio accumulative potential

No data.

12.4 Mobility in soil

Mobility of components of the mixture depends on the hydrophilic and hydrophobic properties and biotic and abiotic conditions of soil, including its structure, climatic conditions, seasons and soil organisms.

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 Other adverse effects

Product is not classified as hazardous to the ozone layer. Consider other harmful effects of individual components of the mixture on the environment (e.g. endocrine disrupting potential, global warming potential).

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Disposal methods for the mixture: do not deposit with household waste. Waste should not be disposed of by release to sewers. Dispose of waste material according to Local, State, Federal, and Provincial Environmental Regulations.
Disposal methods for used packing: package should be passed to a certified company. Do not mix with other wastes. Waste code should be assigned in place of formation. Waste code should be assigned in place of formation.

Legal basis: Directive 2008/98/EC, 94/62/EC.

SECTION 14: Transport information

14.1 UN Number

UN 1044

14.2 UN proper shipping name

Fire extinguisher

14.3 Transport hazard class(es)

2.2

14.4 Packing group

Not applicable.

14.5 Environmental hazards

Not applicable.

14.6 Special precautions for user

Land carriage:
- according to special regulation 594 free from GGVSE/ADR-regulations.
Sea carriage:
- IMDG/GGV sea: Class 2.2
- EMS: F-C,S-V
- PG: none,
- marine pollutant: no marking / label,
- danger marking No. 2.2

14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code

Not applicable.

SECTION 15: Regulatory information

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

Commission **Regulation (EU) 2015/830** of 28 May 2015 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH).
Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC as amended.
Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 (Text with EEA relevance) as amended.
Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste and repealing certain Directives. European Parliament and Council Directive 94/62/EC of 20 December 1994 on packaging and packaging waste

15.2 Chemical safety assessment

It is not necessary to carry out a chemical safety assessment for the mixture.

SECTION 16: Other information

National Poisons Information Centres:

Country	Telephone number	Additional information
Austria	+43 1 406 43 43 144 141	Poison Control Centre Emergency helpline. Ambulance services. Physician's service.
Belgium	+32 70 245 245	Poison Control Centre.
Bulgaria	(+359) 0 2 9888 205 0887 088 440	Green phone: - from 9.00 am to 5.30 pm every day; - (outside working hours) expect signs of environmental pollution.
Croatia	(+385) 0 1 2348 342	Poison Control Center 24/h.
Cyprus	112	Ask for Poison Information (24 hours a day, 7 days a week).
Czech Republic	+420 2 24 919 293 +420 2 24 915 402	Toxicological Information Centre.
Denmark	+45 82 12 12 12	Poison call.
Estonia	16662 (+372) 626 93 90	Poisoning Information Centre telephone number (is nationally is active for 24). Calling from abroad hour in all days.
Finland	(+385) 0 9 471 977 09 4711	Poison Information Centre - open 24 hours a day. Switchboard.
France	(+ 33) 0 1 45 42 59 59	This number provides contact information for all French Anti-poison centers. These poison and toxicvigilance centers provide free medical assistance (excluding call costs), 24 hours a day, 7 days a week.

Country	Telephone number	Additional information
Germany	112	Ask for Poison Information (24 hours a day, 7 days a week).
Great Britain	0870 243 2241	No data.
Greece	(0030) 2 10 779 3777 Fax: 00302107486114	Poison Information Centre - available for consultation 24 hours/day, to medical professionals and the public.
Hungary	(+ 36-80) 201-199	The Health Toxicological Information Service (0-24 h, toll-free).
Iceland	543 2222	Poison Center is open around the clock.
Ireland	(+353) 0 1 809 2166	National Poison Information Centre – 8.00 am to 10 pm 7 days a week.
Italy	+39 06 305 4343	Poison Centre.
Latvia	+371 670 42473	Service is available 24 hours.
Lithuania	+370 2 36 20 52	Poisons Control and Information - Emergency telephone.
Netherlands	+31 30 274 88 88	National Poisons Control Centre - Emergency telephone
Norway	+47 22 59 13 00	Advice by poisoning and poisoning hazard - 24 hours a day, 7 days a week.
Poland	+48 58 301 65 16 +48 58 349 2831	1st Department of Internal Diseases and Acute Poisonings - Emergency telephone.
Portugal	808 250 143	No data.
Romania	+40 21 230 8000	Department of Clinical Toxicology - Emergency telephone.
Slovakia	+421 2 54 77 4 166	Toxicological Information Centre - Emergency telephone.
Slovenia	+ 386 41 650 500	Poison Centre - Emergency telephone.
Spain	+34 91 562 04 20	Emergency telephone.
Sweden	010-456 6700	If you have questions concerning acute poisonings Monday-Friday 9.00-17.00.
Switzerland	+41 1 251 51 51	No data.
Turkey	0 800 314 7900	Toxicology Department and Poisons Centre.

Relevant H- and EUH-phrases (number and full text):
H280 Contents gas under pressure; may explode if heated.

Abbreviations and acronyms:
PBT Persistent, Bioaccumulative and Toxic substance
vPvB very Persistent, very Bioaccumulative substance

Trainings:
Before commencing working with the product, the user should learn the Health & Safety regulations, regarding handling chemicals, and in particular, undergo a proper workplace training.

Key literature references and sources of data:
This SDS was prepared on the basis of sheets of the ABC Fire extinguishing powder, literature data, online databases as well as our knowledge and experience, taking into account current legislation.

Additional information:
Classification was based on data on hazardous substances calculation method under the guidance of Regulation 1272/2008/EC (CLP).

The information above is based on a current available data concerning the product, but also on the experience and knowledge in this field of the producer. They are neither a quality description of the product nor a guarantee of particular features. They are to be treated as aid to safety in transport, storage and usage of the product. That does not free the user from the responsibility of improper usage of the information above and also of improper compliance with the law norms in the field.