

Safety Data Sheet

Adlite® 1F

Revision date : 2021/10/04

Version: 1.0

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(30751972/SDS_GEN_CA/EN)

1. Identification

Product identifier used on the label

Adlite® 1F

Recommended use of the chemical and restriction on use

Recommended use*: Paper chemical

Recommended use*: inorganic reducing agents; Bleaching agents

Suitable for use in industrial sector: paper industry

* The "Recommended use" identified for this product is provided solely to comply with a Federal requirement and is not part of the seller's published specification. The terms of this Safety Data Sheet (SDS) do not create or infer any warranty, express or implied, including by incorporation into or reference in the seller's sales agreement.

Details of the supplier of the safety data sheet

Company:

BASF Canada Inc.

5025 Creekbank Road

Building A, Floor 2

Mississauga, ON, L4W 0B6, CANADA

Telephone: +1 289 360-1300

Emergency telephone number

24 Hour Emergency Response Information

CHEMTREC: 1-800-424-9300

BASF HOTLINE: (800) 454-COPE (2673)

Other means of identification

Synonyms: Not Available Use: chemical; auxiliary / finishing agent for the textile industry

2. Hazards Identification

According to Hazardous Products Regulations (HPR) (SOR/2015-17)

Classification of the product

Self-heat.	1	Self-heating substances and mixtures
Eye Dam./Irrit.	2A	Serious eye damage/eye irritation
Aquatic Acute	3	Hazardous to the aquatic environment - acute

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Label elements

Pictogram:



Signal Word:
Danger

Hazard Statement:

H251	Self-heating: may catch fire.
H319	Causes serious eye irritation.
H402	Harmful to aquatic life.

Precautionary Statements (Prevention):

P280	Wear protective gloves and eye protection or face protection.
P273	Avoid release to the environment.
P235 + P410	Keep cool. Protect from sunlight.
P264	Wash contaminated body parts thoroughly after handling.

Precautionary Statements (Response):

P312	Call a POISON CENTER or physician if you feel unwell.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337	If eye irritation persists:
P311	Call a POISON CENTER or physician.

Precautionary Statements (Storage):

P407	Maintain air gap between stacks or pallets.
P420	Store separately.
P413	Store bulk masses greater than 1 kg/ 2,2 lbs at temperatures not exceeding 50 °C/122 °F.

Precautionary Statements (Disposal):

P501	Dispose of contents and container to hazardous or special waste collection point.
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Hazards not otherwise classified

If applicable information is provided in this section on other hazards which do not result in classification but which may contribute to the overall hazards of the substance or mixture. No specific dangers known, if the regulations/notes for storage and handling are considered.

Labeling of special preparations (GHS):

Contact with acids liberates toxic gas.

3. Composition / Information on Ingredients

According to Hazardous Products Regulations (HPR) (SOR/2015-17)

sodium dithionite

CAS Number: 7775-14-6

Content (W/W): >= 50.0 - <= 100.0%

Synonym: Sodium hyposulfite

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sodium carbonate
CAS Number: 497-19-8
Content (W/W): $\geq 3.0 - < 20.0\%$
Synonym: Carbonic acid, disodium salt

Sodium metabisulfite
CAS Number: 7681-57-4
Content (W/W): $\geq 1.0 - < 7.0\%$
Synonym: Disulfurous acid disodium salt; Disodium disulfite

4. First-Aid Measures

Description of first aid measures

General advice:

Remove contaminated clothing.

If inhaled:

If difficulties occur after dust has been inhaled, remove to fresh air and seek medical attention.

If on skin:

Wash thoroughly with soap and water

If in eyes:

Immediately wash affected eyes for at least 15 minutes under running water with eyelids held open, consult an eye specialist.

If swallowed:

Immediately rinse mouth and then drink 200-300 ml of water, seek medical attention.

Most important symptoms and effects, both acute and delayed

Symptoms: Information, i.e. additional information on symptoms and effects may be included in the GHS labeling phrases available in Section 2 and in the Toxicological assessments available in Section 11., allergic symptoms

Hazards: Respiratory sensitization may result in allergic (asthma-like) signs in the lower respiratory tract including wheezing, shortness of breath and difficulty breathing, the onset of which may be delayed. Risk of sulfur dioxide formation by reaction with gastric acid after swallowing.

Indication of any immediate medical attention and special treatment needed

Note to physician

Treatment: Treat according to symptoms (decontamination, vital functions), no known specific antidote.

5. Fire-Fighting Measures

Extinguishing media

Special hazards arising from the substance or mixture

Hazards during fire-fighting:

Sulphur dioxide,

The substances/groups of substances mentioned can be released in case of fire.

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Advice for fire-fighters

Protective equipment for fire-fighting:
Wear a self-contained breathing apparatus.

Further information:

Contaminated extinguishing water must be disposed of in accordance with official regulations.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Avoid contact with skin and eyes. Use breathing apparatus if exposed to vapours/dust/aerosol.

Environmental precautions

Do not discharge into drains/surface waters/groundwater. Do not discharge into the subsoil/soil.
Retain and dispose of contaminated wash water.

Methods and material for containment and cleaning up

For small amounts: Pick up in dry form. Dispose of absorbed material in accordance with regulations.
For large amounts: Pick up in dry form. Dispose of absorbed material in accordance with regulations.

7. Handling and Storage

Precautions for safe handling

Ensure thorough ventilation of stores and work areas. Breathing must be protected when large quantities are decanted without local exhaust ventilation. Do not open warm or swollen product containers. Remove persons to safety and alert fire brigade.

Protection against fire and explosion:
The product is liable to self-heating but not explosive.

Conditions for safe storage, including any incompatibilities

Segregate from acids. Segregate from oxidants.

Suitable materials for containers: High density polyethylene (HDPE), Low density polyethylene (LDPE), glass, Carbon steel (Iron), Stainless steel 1.4301 (V2), Stove-lacquer R 78433

Further information on storage conditions: Protect against moisture. Keep container tightly closed and in a well-ventilated place. Protect against heat.

Storage stability:

Large quantities of the product should not be kept in stockrooms with sprinkler installations due to a possible self inflammation by small quantities of water.
Improper storage may result in a pressure build-up in the storage containers.

8. Exposure Controls/Personal Protection

No substance specific occupational exposure limits known.

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Personal protective equipment

Respiratory protection:

Breathing protection if breathable aerosols/dust are formed.

Hand protection:

Chemical resistant protective gloves, nitrile rubber (Buna N), butyl rubber, polyvinylchloride (Pylox)

Eye protection:

Tightly fitting safety goggles (chemical goggles).

Body protection:

Body protection must be chosen depending on activity and possible exposure, e.g. apron, protecting boots, chemical-protection suit (according to EN 14605 in case of splashes or EN ISO 13982 in case of dust).

General safety and hygiene measures:

Avoid contact with the skin, eyes and clothing. Do not breathe dust. Handle in accordance with good industrial hygiene and safety practice. When using, do not eat, drink or smoke.

9. Physical and Chemical Properties

Form:	powder
Odour:	pungent odour
Odour threshold:	Not determined due to potential health hazard by inhalation.
Colour:	white
pH value:	9 - 11 (10 %(m))
decomposition point:	> 80 °C Thermal decomposition above the indicated temperature is possible.
:	The substance / product decomposes therefore not determined., Study technically not feasible.
Flash point:	not applicable, the product is a solid
Flammability:	Risk of spontaneous ignition. (other)
Lower explosion limit:	For solids not relevant for classification and labelling.
Upper explosion limit:	For solids not relevant for classification and labelling.
Vapour pressure:	The substance / product decomposes therefore not determined.
Density:	approx. 2.3 g/cm ³ (20 °C) The data given are those of the active ingredient.
Bulk density:	approx. 1,000 kg/m ³
Vapour density:	The product is a non-volatile solid.
Partitioning coefficient n- octanol/water (log Pow):	The value has not been determined because the substance is inorganic.
Self-ignition temperature:	> 80 °C The statements are based on the properties of the individual components. Danger of the self inflammation exists on contact with air humidity.

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Thermal decomposition:	80 °C Thermal decomposition above the indicated temperature is possible.
Viscosity, dynamic:	not applicable, the product is a solid
Solubility in water:	> 150 g/l (20 °C) slow decomposition
Evaporation rate:	The product is a non-volatile solid.

10. Stability and Reactivity

Reactivity

No hazardous reactions if stored and handled as prescribed/indicated.

Oxidizing properties:
not fire-propagating

Chemical stability

The product is stable if stored and handled as prescribed/indicated.

Possibility of hazardous reactions

Reacts with acids. Reacts with oxidizing agents. Reacts with damp air. Self inflammation possible by spray waters or water in small quantities. On contact with water, gaseous decomposition products are formed, which cause build-up of pressure in tightly closed containers.

Conditions to avoid

Incompatible materials

acids, oxidizing agents

Hazardous decomposition products

Decomposition products:
Hazardous decomposition products: Sulphur dioxide

Thermal decomposition:
80 °C
Thermal decomposition above the indicated temperature is possible.

11. Toxicological information

Primary routes of exposure

Routes of entry for solids and liquids are ingestion and inhalation, but may include eye or skin contact. Routes of entry for gases include inhalation and eye contact. Skin contact may be a route of entry for liquefied gases.

Acute Toxicity/Effects

Acute toxicity

Information on: sodium dithionite
Assessment of acute toxicity: Of moderate toxicity after single ingestion. Virtually nontoxic by inhalation. Virtually nontoxic after a single skin contact. The product has not been fully tested. The statements have been derived in parts from products of a similar structure or composition.

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Oral

Type of value: ATE

Species: rat (male/female)

Value: 2,358 mg/kg (Guideline 92/69/EEC, B.1)

Information on: sodium dithionite

Type of value: LD50

Species: rat (male/female)

Value: approx. 2,500 mg/kg (BASF-Test)

The European Union (EU) has classified this substance as 'harmful'.

Information on: sodium carbonate

Type of value: LD50

Species: rat

Value: 2,800 mg/kg

Information on: Sodium metabisulfite

Type of value: LD50

Species: rat (male/female)

Value: 1,540 mg/kg (OECD Guideline 401)

Information on: sodium sulphite

Type of value: LD50

Species: rat

Value: approx. 2,610 mg/kg (OECD Guideline 401)

Inhalation

Information on: sodium dithionite

Type of value: LC50

Species: rat (male/female)

Value: > 5.5 mg/l (OECD Guideline 403)

Exposure time: 4 h

The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Dermal

Information on: sodium dithionite

Type of value: LD50

Species: rat (male/female)

Value: > 2,000 mg/kg (OECD Guideline 402)

The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Skin

Result: non-irritant

Eye

Result: Irritating.

Information on: sodium dithionite

Species: rabbit

Result: Irritant.

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Method: OECD Guideline 405

Information on: sodium carbonate

Species: rabbit

Result: Irritant.

Method: EPA Guideline

Information on: Sodium metabisulfite

Species: rabbit

Result: Risk of serious damage to eyes.

Method: OECD Guideline 405

Sensitization

Information on: sodium dithionite

Mouse Local Lymph Node Assay (LLNA)

Species: mouse

Result: Non-sensitizing.

Method: OECD Guideline 429

Aspiration Hazard

Harmful if swallowed.

Chronic Toxicity/Effects

Repeated dose toxicity

Information on: sodium dithionite

Assessment of repeated dose toxicity: Repeated oral uptake of the substance did not cause substance-related effects.

Information on: sodium carbonate

Assessment of repeated dose toxicity: No reliable data was available concerning repeated dose toxicity.

Genetic toxicity

Information on: sodium dithionite

Assessment of mutagenicity: The substance was not mutagenic in bacteria. The substance was not mutagenic in mammalian cell culture. The substance was not mutagenic in studies with mammals. The product has not been fully tested. The statements have been derived in parts from products of a similar structure or composition.

Carcinogenicity

Information on: sodium dithionite

Assessment of carcinogenicity: In long-term studies in rats in which the substance was given by feed, a carcinogenic effect was not observed. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Information on: sodium carbonate

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Assessment of carcinogenicity: No data available concerning carcinogenic effects. The chemical structure does not suggest a specific alert for such an effect.

Reproductive toxicity

Information on: sodium dithionite

Assessment of reproduction toxicity: The results of animal studies gave no indication of a fertility impairing effect. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Teratogenicity

Information on: sodium dithionite

Assessment of teratogenicity: No indications of a developmental toxic / teratogenic effect were seen in animal studies. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

12. Ecological Information

Toxicity

Aquatic toxicity

Assessment of aquatic toxicity:

Acutely harmful for aquatic organisms. Inhibition of degradation activity in activated sludge is not to be anticipated during correct introduction of low concentrations. The product has not been tested. The statement has been derived from the properties of the individual components.

Toxicity to fish

Information on: sodium dithionite

*LC50 (96 h) 62.3 mg/l, Leuciscus idus (DIN 38412 Part 15, static)
Nominal concentration.*

Information on: sodium sulphite

LC50 (96 h) 316 mg/l, Leuciscus idus (DIN 38412 Part 15, static)

The product has not been tested. The statement has been derived from substances/products of a similar structure or composition. The details of the toxic effect relate to the nominal concentration.

Information on: Sodium metabisulfite

LC50 (96 h) 316 mg/l, Leuciscus idus (DIN 38412 Part 15, static)

The details of the toxic effect relate to the nominal concentration. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Aquatic invertebrates

Information on: sodium dithionite

*EC50 (48 h) 98.3 mg/l, Daphnia magna (Directive 79/831/EEC, static)
Nominal concentration.*

Information on: sodium sulphite

EC50 (48 h) 59 mg/l, Daphnia magna (Directive 79/831/EEC, static)

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The details of the toxic effect relate to the nominal concentration. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

*Information on: Sodium metabisulfite
EC50 (48 h) 89 mg/l, Daphnia magna (Directive 79/831/EEC, static)
Nominal concentration.*

Aquatic plants

*Information on: sodium dithionite
EC50 (72 h) 206 mg/l (growth rate), Scenedesmus subspicatus (DIN 38412 Part 9, static)
Nominal concentration.*

*Information on: sodium sulphite
EC50 (72 h) 31.9 mg/l (growth rate), Scenedesmus subspicatus (OECD Guideline 201, static)
The details of the toxic effect relate to the nominal concentration. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.*

*Information on: Sodium metabisulfite
EC50 (72 h) 43.8 mg/l (growth rate), algae (other, static)
Nominal concentration.*

Microorganisms/Effect on activated sludge

Toxicity to microorganisms

*Information on: sodium dithionite
OECD Guideline 209 aquatic
activated sludge of a predominantly domestic sewage/EC20 (3 h): 120.5 mg/l*

*Information on: sodium sulphite
OECD Guideline 209 static
activated sludge of a predominantly domestic sewage/EC50 (3 h): > 1,000 mg/l
The details of the toxic effect relate to the nominal concentration.
DIN 38412 Part 8 aquatic
bacterium/EC10 (17 h): 260 mg/l
Nominal concentration.*

*Information on: Sodium metabisulfite
OECD Guideline 209 aquatic
activated sludge of a predominantly domestic sewage/No observed effect concentration (3 h): > 1,000 mg/l
The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.*

Persistence and degradability

Assessment biodegradation and elimination (H₂O)
Inorganic product which cannot be eliminated from water by biological purification processes.

Bioaccumulative potential

Assessment bioaccumulation potential
Because of the n-octanol/water distribution coefficient (log Pow) accumulation in organisms is not to be expected.

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Mobility in soil

Assessment transport between environmental compartments

Adsorption to solid soil phase is not expected.

Additional information

Other ecotoxicological advice:

Do not allow to enter soil, waterways or waste water channels. Higher concentrations of the substance may cause a strong chemical oxygen consumption in biological sewage-treatment plants and/or waterways.

13. Disposal considerations

Waste disposal of substance:

Must be disposed of or incinerated in accordance with local regulations.

Container disposal:

Do not reuse containers without commercial reconditioning. Recommend crushing, puncturing or other means to prevent unauthorized use of used containers.

14. Transport Information

Land transport

TDG

Hazard class: 4.2
Packing group: II
ID number: UN 1384
Hazard label: 4.2
Proper shipping name: SODIUM DITHIONITE (SODIUM HYDROSULPHITE)

Sea transport

IMDG

Hazard class: 4.2
Packing group: II
ID number: UN 1384
Hazard label: 4.2
Marine pollutant: NO
Proper shipping name: SODIUM DITHIONITE (SODIUM HYDROSULPHITE)

Air transport

IATA/ICAO

Hazard class: 4.2
Packing group: II
ID number: UN 1384
Hazard label: 4.2
Proper shipping name: SODIUM DITHIONITE

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15. Regulatory Information

Federal Regulations

Registration status:

Chemical DSL, CA released / listed

NFPA Hazard codes:

Health: 2 Fire: 0 Reactivity: 2 Special: -W-

Assessment of the hazard classes according to UN GHS criteria (most recent version):

Acute Tox.	4 (oral)	Acute toxicity
Aquatic Acute	3	Hazardous to the aquatic environment - acute
Eye Dam./Irrit.	2A	Serious eye damage/eye irritation
Self-heat.	1	Self-heating substances and mixtures

16. Other Information

SDS Prepared by:

BASF NA Product Regulations
SDS Prepared on: 2021/10/04

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