



Version 4.1	Revision Date: 30.09.2023		S Number: 32042-00014	Date of last issue: 04.04.2023 Date of first issue: 06.06.2017
SECTION	1. PRODUCT AND C	СОМРА	NY IDENTIFICA	TION
Produ	uct name	:	Amitraz Solid F	ormulation
	facturer or supplier	's detai		
Comp	bany	•	MSD	
Addre	ess	:		ento Soares, 530 Paulo - Brazil CEP 12730-340
Telep	hone	:	908-740-4000	
Emer	gency telephone	:	1-908-423-600	0
E-ma	il address	:	EHSDATASTE	WARD@msd.com
Reco	mmended use of the	e chem	ical and restrict	tions on use
	mmended use ictions on use	:	Veterinary proc Not applicable	luct

### SECTION 2. HAZARDS IDENTIFICATION

GHS Classification in accord Acute toxicity (Oral)	GHS Classification in accordance with ABNT NBR 14725 StandardAcute toxicity (Oral): Category 4							
Skin irritation	:	Category 3						
Serious eye damage	:	Category 1						
Skin sensitization	:	Category 1						
Germ cell mutagenicity	:	Category 2						
Carcinogenicity	:	Category 1B						
Specific target organ toxicity - repeated exposure	:	Category 2 (Liver, Central nervous system)						
Short-term (acute) aquatic hazard	:	Category 1						
Long-term (chronic) aquatic hazard	:	Category 1						

### GHS label elements in accordance with ABNT NBR 14725 Standard



Version 4.1	Revision Date: 30.09.2023	SDS Number: 1732042-00014	Date of last issue: 04.04.2023 Date of first issue: 06.06.2017
Haza	rd pictograms		
Signa	al Word	: Danger	
Haza	rd Statements	H317 May caus H318 Causes s H341 Suspecte H350 May caus H373 May caus system) throug	nild skin irritation. se an allergic skin reaction. serious eye damage. ed of causing genetic defects.
Preca	autionary Statements	P260 Do not bi P273 Avoid rel	ease to the environment. stective gloves/ protective clothing/ eye protec-
		water for sever	-

#### **Additional Labeling**

The following percentage of the mixture consists of ingredient(s) with unknown acute oral toxicity: 10 %

The following percentage of the mixture consists of ingredient(s) with unknown acute dermal toxicity: 10 %

The following percentage of the mixture consists of ingredient(s) with unknown acute inhalation toxicity: 10 %

The following percentage of the mixture consists of ingredient(s) with unknown hazards to the aquatic environment: 10 %

### Other hazards which do not result in classification

May form explosive dust-air mixture during processing, handling or other means.

#### **SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

Substance / Mixture

: Mixture

#### Components

Chemical name	CAS-No.	Classification	Concentration (% w/w)
Amitraz (ISO)	33089-61-1	Acute toxicity (Oral), Category 4 Specific target organ toxicity - repeated	50



/ersion .1	Revision Date: 30.09.2023	SDS Number: 1732042-00014	Date of last issue: Date of first issue:	
			exposure (Liver, Cen- tral nervous system), Category 2 Short-term (acute) aquatic hazard, Category 1 Long-term (chronic) aquatic hazard, Category 1	
Alum	inium silicate	12141-46-7		>= 10 -<= 20
	formaldehyde	30525-89-4	Acute toxicity (Oral), Category 4 Acute toxicity (Inhala- tion), Category 4 Skin irritation, Category 2 Serious eye damage, Category 1 Skin sensitization, Sub-category 1A Germ cell mutagenici- ty, Category 2 Carcinogenicity, Category 1B Specific target organ toxicity - single expo- sure, Category 3 Short-term (acute) aquatic hazard, Category 2	2,55
	um bis(2- nexyl)sulfosuccinate	577-11-7	Acute toxicity (Oral), Category 5 Skin irritation, Category 2 Serious eye damage, Category 1 Short-term (acute) aquatic hazard, Category 2	1

### SECTION 4. FIRST AID MEASURES

General advice	:	In the case of accident or if you feel unwell, seek medical advice immediately. When symptoms persist or in all cases of doubt seek medical advice.
If inhaled	:	If inhaled, remove to fresh air. Get medical attention.
In case of skin contact	:	In case of contact, immediately flush skin with plenty of water. Remove contaminated clothing and shoes.

### SAFETY DATA SHEET



## **Amitraz Solid Formulation**

Version 4.1	Revision Date: 30.09.2023	SDS Number: 1732042-00014	Date of last issue: 04.04.2023 Date of first issue: 06.06.2017				
		Get medical	attention.				
			ng before reuse.				
_		• • •	clean shoes before reuse.				
In	case of eye contact	: In case of co for at least 1	ntact, immediately flush eyes with plenty of water				
			, remove contact lens, if worn.				
			attention immediately.				
lf s	wallowed	: If swallowed, DO NOT induce vomiting.					
		Get medical					
			thoroughly with water.				
		•	nything by mouth to an unconscious person.				
	ost important symptoms	: Harmful if sw					
	d effects, both acute and layed		skin irritation. In allergic skin reaction.				
ue	layeu		bus eye damage.				
			f causing genetic defects.				
		May cause cancer.					
		May cause c exposure.	lamage to organs through prolonged or repeated				
Pro	otection of first-aiders	: First Aid res	conders should pay attention to self-protection,				
			recommended personal protective equipment tential for exposure exists (see section 8).				
No	tes to physician	: Treat sympto	omatically and supportively.				

#### **SECTION 5. FIRE-FIGHTING MEASURES**

Suitable extinguishing media	:	Water spray Alcohol-resistant foam Carbon dioxide (CO2) Dry chemical
Unsuitable extinguishing media	:	None known.
Specific hazards during fire fighting	:	Avoid generating dust; fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard. Exposure to combustion products may be a hazard to health.
Hazardous combustion prod- ucts	:	Carbon oxides Silicon oxides Metal oxides Nitrogen oxides (NOx) Sulfur oxides
Specific extinguishing meth- ods	:	Use extinguishing measures that are appropriate to local cir- cumstances and the surrounding environment. Use water spray to cool unopened containers. Remove undamaged containers from fire area if it is safe to do so. Evacuate area.
Special protective equipment for fire-fighters	:	In the event of fire, wear self-contained breathing apparatus. Use personal protective equipment.

#### SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protec- : Use personal protective equipment.



Vers 4.1	sion	Revision Date: 30.09.2023		S Number: 32042-00014	Date of last issue: 04.04.2023 Date of first issue: 06.06.2017	
	tive equipment and emer- gency procedures				ing advice (see section 7) and personal ent recommendations (see section 8).	
	Environmental precautions :		:	Avoid release to the environment. Prevent further leakage or spillage if safe to do so. Retain and dispose of contaminated wash water. Local authorities should be advised if significant spillages cannot be contained.		
		ls and materials for ment and cleaning up	:	container for disper Avoid dispersal of with compressed Dust deposits sho surfaces, as these released into the a Local or national r disposal of this ma employed in the c determine which r Sections 13 and 1	dust in the air (i.e., clearing dust surfaces	

### SECTION 7. HANDLING AND STORAGE

Technical measures	:	Static electricity may accumulate and ignite suspended dust causing an explosion. Provide adequate precautions, such as electrical grounding and bonding, or inert atmospheres.
Local/Total ventilation	:	If sufficient ventilation is unavailable, use with local exhaust ventilation.
Advice on safe handling	:	Do not get on skin or clothing. Do not breathe dust. Do not swallow. Do not get in eyes. Wash skin thoroughly after handling. Handle in accordance with good industrial hygiene and safety practice, based on the results of the workplace exposure assessment Keep container tightly closed. Keep away from water. Protect from moisture. Minimize dust generation and accumulation. Keep container closed when not in use. Keep away from heat and sources of ignition. Take precautionary measures against static discharges. Do not eat, drink or smoke when using this product. Take care to prevent spills, waste and minimize release to the
Hygiene measures	:	environment. If exposure to chemical is likely during typical use, provide eye flushing systems and safety showers close to the working place. When using do not eat, drink or smoke. Contaminated work clothing should not be allowed out of the



Version 4.1	Revision Date: 30.09.2023	SDS Number: 1732042-00014	Date of last issue: 04.04.2023 Date of first issue: 06.06.2017				
	itions for safe storage	workplace. Wash contaminated clothing before re-use. : Keep in properly labeled containers. Store locked up. Keep tightly closed. Store in accordance with the particular national regulations.					
Mater	ials to avoid	Strong oxidizing	ostances and mixtures				

### SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

#### Ingredients with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parame- ters / Permissible concentration	Basis
Amitraz (ISO)	33089-61-1	TWA	10 µg/m3 (OEB 3)	Internal
		Wipe limit	1250 µg/100 cm <sup>2</sup>	Internal
Aluminium silicate	12141-46-7	TWA (Respirable particulate matter)	1 mg/m³ (Aluminum)	ACGIH

### Occupational exposure limits of decomposition products

Components	CAS-No.	Value type (Form of exposure)	Control parame- ters / Permissible concentration	Basis
Formaldehyde	50-00-0	CEIL	1,6 ppm 2,3 mg/m³	BR OEL
	Further information: Degree of harmfulness: maximum			
		TWA	0,1 ppm	ACGIH
		STEL	0,3 ppm	ACGIH

Engineering measures :	<ul> <li>Processing may form hazardous compounds (see section 10).</li> <li>Minimize workplace exposure concentrations.</li> <li>Apply measures to prevent dust explosions.</li> <li>Ensure that dust-handling systems (such as exhaust ducts, dust collectors, vessels, and processing equipment) are designed in a manner to prevent the escape of dust into the work area (i.e., there is no leakage from the equipment).</li> <li>If sufficient ventilation is unavailable, use with local exhaust ventilation.</li> </ul>
Personal protective equipment	t
Description we not a stick	If a demonstrate leaved and encoder and the first and encoded and and

Respiratory protection	:	If adequate local exhaust ventilation is not available or
		exposure assessment demonstrates exposures outside the
		recommended guidelines, use respiratory protection.
Filter type	:	Combined particulates and inorganic gas/vapor type
Hand protection		

Version



Date of last issue: 04.04.2023

## **Amitraz Solid Formulation**

Revision Date:

SDS Number:

Version 4.1	Revision Date: 30.09.2023		S Number: 32042-00014	Date of last issue: 04.04.2023 Date of first issue: 06.06.2017
M	laterial	:	Chemical-resistar	nt gloves
R	emarks	:	on the concentrat time is not determ For special applic resistance to che	protect hands against chemicals depending ion specific to place of work. Breakthrough nined for the product. Change gloves often! ations, we recommend clarifying the micals of the aforementioned protective ove manufacturer. Wash hands before end of workday
Eye	protection	:	Wear the followin Chemical resistar	g personal protective equipment: It goggles must be worn. ely to occur, wear:
Skin	and body protection	:	Select appropriate resistance data a potential. Skin contact mus	e protective clothing based on chemical nd an assessment of the local exposure t be avoided by using impervious protective aprons, boots, etc).
SECTION	9. PHYSICAL AND CH	EMI		S
Арре	earance	:	powder	
Colo	r	:	white	
Odor		:	No data available	9
Odor	<sup>-</sup> Threshold	:	No data available	9
рН		:	No data available	9
Melti	ng point/freezing point	:	No data available	9
Initia rango	l boiling point and boiling e	:	No data available	9
Flash	n point	:	Not applicable	
Evap	ooration rate	:	No data available	9
Flam	mability (solid, gas)	:	May form explos handling or other	ive dust-air mixture during processing, r means.
Flam	mability (liquids)	:	No data available	9
	er explosion limit / Upper nability limit	:	No data available	9
	er explosion limit / Lower nability limit	:	No data available	9
Vapo	or pressure	:	No data available	9
Rela	tive vapor density	:	No data available	9



Ver 4.1	sion	Revision Date: 30.09.2023		S Number: 32042-00014	Date of last issue: 04.04.2023 Date of first issue: 06.06.2017
	Relative	e density	:	No data available	3
	Density	,	:	No data available	9
	Solubili Wat	ty(ies) er solubility	:	insoluble	
	Partition octanol	n coefficient: n-	:	No data available	9
		ition temperature	:	No data available	9
	Decom	position temperature	:	No data available	9
	Viscosi Visc	ty osity, kinematic	:	No data available	
	Explosi	ve properties	:	Not explosive	
	Oxidizir	ng properties	:	The substance o	r mixture is not classified as oxidizing.
	Molecu	lar weight	:	Not applicable	
	Particle	size	:	No data available	)

### SECTION 10. STABILITY AND REACTIVITY

Reactivity : Chemical stability : Possibility of hazardous reac- : tions	Not classified as a reactivity hazard. Stable under normal conditions. May form explosive dust-air mixture during processing, handling or other means. Can react with strong oxidizing agents. Hazardous decomposition products will be formed upon contact with water or humid air.
Conditions to avoid :	Exposure to moisture. Heat, flames and sparks.
Incompatible materials :	Avoid dust formation. Oxidizing agents Water
Hazardous decomposition pro	

air

Information on likely routes of	:	Inhalation
exposure		Skin contact
		Ingestion
		Eye contact



ersion 1	Revision Date: 30.09.2023	SDS Number: 1732042-00014	Date of last issue: 04.04.2023 Date of first issue: 06.06.2017
Acute	toxicity		
Harmf	ul if swallowed.		
<u>Produ</u>			
Acute	oral toxicity		y estimate: 955,73 mg/kg culation method
Acute	inhalation toxicity	Exposure tim Test atmosp	y estimate: > 10 mg/l ne: 4 h here: dust/mist culation method
<u>Comp</u>	onents:		
Amitra	az (ISO):		
Acute	oral toxicity	: LD50 (Rat): :	> 400 mg/kg
		LD50 (Mouse	e): > 1.085 mg/kg
		LD50 (Guine	a pig): > 400 mg/kg
Acute	inhalation toxicity	: Remarks: No	o data available
Acute	dermal toxicity	: LD50 (Rat): :	> 1.600 mg/kg
Alumi	nium silicate:		
Acute	oral toxicity	: LD50 (Rat): : Assessment: icity	> 2.000 mg/kg The substance or mixture has no acute oral tox-
Acute	inhalation toxicity		
Acute	dermal toxicity	: LD50 (Rat): :	> 5.000 mg/kg
Parafo	ormaldehyde:		
	oral toxicity	: LD50 (Rat, n	nale): 592 mg/kg
Acute	inhalation toxicity	: LC50 (Rat): Exposure tim Test atmosp	
Acute	dermal toxicity	: LD50 (Rat): :	> 10.000 mg/kg
Sodiu	m bis(2-ethylhexyl)	sulfosuccinate:	
Acute	oral toxicity	: LD50 (Rat): 3	3.080 mg/kg
			t): > 5.000 mg/kg



sion	Revision Date: 30.09.2023	SDS Number: 1732042-00014	Date of last issue: 04.04.2023 Date of first issue: 06.06.2017
Skin	corrosion/irritation		
Cause	es mild skin irritation.		
Comp	oonents:		
	az (ISO):		
Speci		: Rabbit	
Resul		: No skin irritation	ſ
Alum	inium silicate:		
Speci	es	: Rabbit	
Resul		: No skin irritation	า
Rema	urks	: Based on data	from similar materials
Paraf	ormaldehyde:		
Speci	es	: Rabbit	
Resul		: Skin irritation	
Sodiu	ım bis(2-ethylhexyl)	sulfosuccinate:	
Speci	es	: Rabbit	
			1. I. I
Metho	bd	: OECD Test Gu	Ideline 404
		: OECD Test Gui : Skin irritation	ideline 404
Metho Resul		: Skin irritation	ideline 404
Metho Resul	t	: Skin irritation	ideline 404
Metho Resul Serio Cause	t us eye damage/eye	: Skin irritation	Ideline 404
Metho Resul Serio Cause Comp	t <b>us eye damage/eye</b> es serious eye damag	: Skin irritation	ideline 404
Metho Resul Serio Cause <u>Comp</u> Amitr Speci	t us eye damage/eye es serious eye damag ponents: raz (ISO): es	: Skin irritation	ideline 404
Metho Resul Serio Cause Comp Amitr	t us eye damage/eye es serious eye damag ponents: raz (ISO): es	: Skin irritation irritation ge.	
Metho Resul Serio Cause Comp Amitr Speci Resul	t us eye damage/eye es serious eye damag ponents: raz (ISO): es	: Skin irritation irritation ge. : Rabbit	
Metho Resul Serio Cause Comp Amitr Speci Resul Alum Speci	t us eye damage/eye es serious eye damag <u>ponents:</u> raz (ISO): es t inium silicate: es	: Skin irritation irritation ge. : Rabbit : No eye irritation : Rabbit	1
Metho Resul Serio Cause Comp Amitr Speci Resul Alum Speci Resul	t us eye damage/eye es serious eye damag <u>ponents:</u> raz (ISO): es t inium silicate: es t	<ul> <li>Skin irritation</li> <li>irritation</li> <li>ge.</li> <li>Rabbit</li> <li>No eye irritation</li> <li>Rabbit</li> <li>No eye irritation</li> <li>No eye irritation</li> </ul>	1
Metho Resul Serio Cause Comp Amitr Speci Resul Metho	t us eye damage/eye es serious eye damag <u>ponents:</u> raz (ISO): es t inium silicate: es t od	<ul> <li>Skin irritation</li> <li>irritation</li> <li>ge.</li> <li>Rabbit</li> <li>No eye irritation</li> <li>Rabbit</li> <li>No eye irritation</li> <li>OPPTS 870.24</li> </ul>	n 00
Metho Resul Serio Cause Comp Amitr Speci Resul Alum Speci Resul	t us eye damage/eye es serious eye damag <u>ponents:</u> raz (ISO): es t inium silicate: es t od	<ul> <li>Skin irritation</li> <li>irritation</li> <li>ge.</li> <li>Rabbit</li> <li>No eye irritation</li> <li>Rabbit</li> <li>No eye irritation</li> <li>OPPTS 870.24</li> </ul>	1
Methor Resul Serio Cause Comp Amitr Speci Resul Methor Resul Paraf	t <b>us eye damage/eye</b> es serious eye damag <u>ponents:</u> <b>raz (ISO):</b> es t <b>inium silicate:</b> es t od urks <b>ormaldehyde:</b>	<ul> <li>Skin irritation</li> <li>irritation</li> <li>ge.</li> <li>Rabbit</li> <li>No eye irritation</li> <li>Rabbit</li> <li>No eye irritation</li> <li>OPPTS 870.24</li> </ul>	n 00
Methor Resul Serio Cause Comp Amitr Speci Resul Methor Resul Methor Rema	t <b>us eye damage/eye</b> es serious eye damag <u>conents:</u> <b>raz (ISO):</b> es t <b>inium silicate:</b> es t od arks <b>ormaldehyde:</b> es	<ul> <li>: Skin irritation</li> <li>irritation</li> <li>ge.</li> <li>: Rabbit</li> <li>: No eye irritation</li> <li>: Rabbit</li> <li>: No eye irritation</li> <li>: OPPTS 870.24</li> <li>: Based on data for the second s</li></ul>	n 00 from similar materials
Methor Resul Serio Cause Comp Amitr Speci Resul Methor Resul Paraf	t <b>us eye damage/eye</b> es serious eye damag <u>conents:</u> <b>raz (ISO):</b> es t <b>inium silicate:</b> es t od arks <b>ormaldehyde:</b> es	<ul> <li>: Skin irritation</li> <li>irritation</li> <li>ge.</li> <li>: Rabbit</li> <li>: No eye irritation</li> <li>: Rabbit</li> <li>: No eye irritation</li> <li>: OPPTS 870.24</li> <li>: Based on data for the second s</li></ul>	n 00 from similar materials
Metho Resul Serio Cause Comp Amitr Speci Resul Metho Rema Paraf Speci Resul	t <b>us eye damage/eye</b> es serious eye damag <u>conents:</u> <b>raz (ISO):</b> es t <b>inium silicate:</b> es t od arks <b>ormaldehyde:</b> es	<ul> <li>Skin irritation</li> <li>irritation</li> <li>ge.</li> <li>Rabbit</li> <li>No eye irritation</li> <li>Rabbit</li> <li>No eye irritation</li> <li>OPPTS 870.244</li> <li>Based on data for the set of the</li></ul>	n 00 from similar materials
Metho Resul Serio Cause Comp Amitr Speci Resul Metho Rema Paraf Speci Resul	t us eye damage/eye es serious eye damag <u>ponents:</u> raz (ISO): es t inium silicate: es t ormaldehyde: es t um bis(2-ethylhexyl):	<ul> <li>: Skin irritation</li> <li>irritation</li> <li>ge.</li> <li>: Rabbit</li> <li>: No eye irritation</li> <li>: Rabbit</li> <li>: No eye irritation</li> <li>: OPPTS 870.24</li> <li>: Based on data for the second s</li></ul>	n 00 from similar materials
Metho Resul Serio Cause Comp Amitr Speci Resul Metho Rema Paraf Speci Resul Speci Resul	t <b>us eye damage/eye</b> es serious eye damag <u>conents:</u> <b>raz (ISO):</b> es t <b>inium silicate:</b> es t ormaldehyde: es t <b>um bis(2-ethylhexyl)</b> es t	<ul> <li>: Skin irritation</li> <li>irritation</li> <li>ge.</li> <li>: Rabbit</li> <li>: No eye irritation</li> <li>: Rabbit</li> <li>: No eye irritation</li> <li>: OPPTS 870.24</li> <li>: Based on data for the second s</li></ul>	n 00 from similar materials ects on the eye



rsion	Revision Date: 30.09.2023	SDS Number: 1732042-00014	Date of last issue: 04.04.2023 Date of first issue: 06.06.2017
Respi	ratory or skin sensi	tization	
••••••	sensitization ause an allergic skin	reaction.	
-	ratory sensitization		
-	assified based on ava		
<u>Comp</u>	oonents:		
Amitra	az (ISO):		
Test T		: Maximization To	est
	s of exposure	: Dermal	
Specie		: Guinea pig	
Result	t	: Not a skin sens	itizer.
Alumi	inium silicate:		
Test T	ype	: Local lymph no	de assay (LLNA)
	s of exposure	: Skin contact	- 、 ,
Specie		: Mouse	
Result	t	: negative	
Parafe	ormaldehyde:		
Test T		: Local lymph no	de assay (LLNA)
	s of exposure	: Skin contact	
Specie		: Mouse	
Result	t	: positive	
Rema	rks	: Based on data	rom similar materials
Asses	sment	: Probability or ev humans	vidence of high skin sensitization rate in
Sodiu	ım bis(2-ethylhexyl)	sulfosuccinate:	
Test T			nsult patch test (HRIPT)
	s of exposure	: Skin contact	
Specie	•	: Humans	
Result	t	: negative	
Germ	cell mutagenicity		
	ected of causing gene	tic defects.	
<u>Comp</u>	oonents:		
Amitra	az (ISO):		
	oxicity in vitro	: Test Type: Bac Result: negative	erial reverse mutation assay (AMES)
		Test Type: In vi Result: negative	tro mammalian cell gene mutation test
		Test Type: Chro Result: negative	pmosome aberration test in vitro



Version 4.1	Revision Date: 30.09.2023	SDS Number: 1732042-00014	Date of last issue: 04.04.2023 Date of first issue: 06.06.2017
			NA damage and repair, unscheduled DNA syn- Imalian cells (in vitro) ive
	inium silicate: toxicity in vitro		acterial reverse mutation assay (AMES)
		Result: negati	
		Test Type: In Result: negati	vitro mammalian cell gene mutation test ive
		Result: negati	
		Remarks: Bas	sed on data from similar materials
Genot	toxicity in vivo	cytogenetic te Species: Rat Application Ro Result: negati	utagenicity (in vivo mammalian bone-marrow est, chromosomal analysis) oute: Ingestion ive sed on data from similar materials
Paraf	ormaldehyde:		
	toxicity in vitro	Result: positiv	acterial reverse mutation assay (AMES) /e sed on data from similar materials
		Result: positiv	vitro mammalian cell gene mutation test /e sed on data from similar materials
		Test Type: in	vitro micronucleus test
		Result: positiv Remarks: Bas	/e sed on data from similar materials
			NA damage and repair, unscheduled DNA syn- malian cells (in vitro)
			sed on data from similar materials
		malian cells Result: positiv	
		Remarks: Bas	sed on data from similar materials
Genot	toxicity in vivo	cytogenetic as Species: Rat Application Ro Result: positiv	oute: inhalation (vapor)
			ammalian erythrocyte micronucleus test (in vivo



ersion 1	Revision Date: 30.09.2023	SDS Num 1732042-0	
		Result	es: Rat ation Route: Ingestion : positive ks: Based on data from similar materials
	cell mutagenicity -		e result(s) from in vivo mammalian somatic cell enicity tests.
Sodiu	ım bis(2-ethylhexyl)s	ulfosuccinat	e:
	toxicity in vitro	: Test T Metho	ype: Bacterial reverse mutation assay (AMES) d: OECD Test Guideline 471 : negative
		Metho	ype: Chromosome aberration test in vitro d: OECD Test Guideline 473 : equivocal
		Metho Result	ype: In vitro mammalian cell gene mutation test d: OECD Test Guideline 476 : negative ks: Based on data from similar materials
Carci	nogenicity		
May c	ause cancer.		
Comp	oonents:		
Amitr	az (ISO):		
	cation Route sure time EL	: Rat : Oral : 2 Year : > 10,1 : negativ	8 mg/kg body weight
Speci	es	: Mouse	
Expos	sure time	: 2 Year	S
LOAE Resul		: 2,3 mg : positiv	/kg body weight
	t Organs		Stomach
Alum	inium silicate:		
Speci	es	: Rat	
	ation Route	: Ingesti	
Expos Resul	sure time t	: 104 we : negativ	
Rema			on data from similar materials
Paraf	ormaldehyde:		
Speci	-	: Rat	
	ation Route	: Ingesti	
	sure time	: 105 we	1



Vers 4.1	sion	Revision Date: 30.09.2023		9S Number: 32042-00014	Date of last issue: 04.04.2023 Date of first issue: 06.06.2017
	Species Applica Exposu Result Remark	tion Route ire time	:	Rat Inhalation 28 Months positive Based on data fro	m similar materials
	Carcino ment	ogenicity - Assess-	:	Sufficient evidenc	e of carcinogenicity in animal experiments
	•	<b>luctive toxicity</b> ssified based on availa	ble	information.	
	Compo	onents:			
	Amitra	z (ISO):			
	Effects	on fertility	:	Species: Rat Application Route Fertility: NOAEL: :	generation reproduction toxicity study : Oral > 4,8 mg/kg body weight ant adverse effects were reported
	Effects	on fetal development	:	Species: Rat Application Route Developmental To Remarks: No sign Test Type: Embry Species: Rabbit Application Route Developmental To	oxicity: NOAEL: 3 mg/kg body weight ificant adverse effects were reported o-fetal development
	Alumin	ium silicate:			
	Effects	on fetal development	:	Species: Rat Application Route Result: negative	o-fetal development : Ingestion on data from similar materials
	Sodiun	n bis(2-ethylhexyl)su	lfos	uccinate:	
	Effects	on fertility	:	Test Type: Three- Species: Rat Application Route Result: negative	generation reproduction toxicity study
	Effects	on fetal development	:	Test Type: Embry Species: Rat Application Route Result: negative	o-fetal development : Ingestion



sion	Revision Date: 30.09.2023	SDS Num 1732042-		Date of last issue: 04.04.2023 Date of first issue: 06.06.2017
STOT	-single exposure			
	assified based on av	ailable informa	ation.	
Comp	oonents:			
	ormaldehyde:			
	sment	: May c	ause resp	iratory irritation.
STOT	-repeated exposure			
May c posur		ans (Liver, Cei	ntral nervo	ous system) through prolonged or repeated
Comp	oonents:			
Amitr	az (ISO):			
-	t Organs ssment		ause dam	ervous system age to organs through prolonged or repeate
Repe	ated dose toxicity			
Comp	oonents:			
Amitr	az (ISO):			
Speci		: Mouse		
NOAE		: 3 mg/l	kg	
	cation Route	: Oral : 90 Da	vs	
	t Organs	: Liver	yo	
Speci	es	: Dog		
NOAE	EL	: 0,25 n	ng/kg	
	ation Route	: Oral		
	sure time	: 90 Da		system Liver
raige	t Organs	. Centra		system, Liver
Alum	inium silicate:			
Speci		: Rat		
NOAE	L ation Route	: > 100 : Ingest	mg/kg	
	sure time	: 104 W		
Rema				rom similar materials
Paraf	ormaldehyde:			
Speci		: Rat, m		
NOAE		: 15 mg		
	ation Route	: Ingest : 105 W		
Rema				rom similar materials
rtonia		. 24000	on data i	

### Sodium bis(2-ethylhexyl)sulfosuccinate:



ersion 1	Revision Date: 30.09.2023		OS Number: 32042-00014	Date of last issue: 04.04.2023 Date of first issue: 06.06.2017
		:	Rat 750 mg/kg Ingestion 90 Days	
	r <mark>ation toxicity</mark> lassified based on availa	ble	information.	
Expe	rience with human exp	osı	ire	
Com	ponents:			
<b>Amit</b> ı Inges	r <b>az (ISO):</b> tion	:	Target Organs: C	entral nervous system
-	12. ECOLOGICAL INFO	ORM	<b>U</b>	,
Ecoto	oxicity			
<u>Com</u>	ponents:			
	r <b>az (ISO):</b> ity to fish	:	LC50 (Lepomis m Exposure time: 96	acrochirus (Bluegill sunfish)): 0,45 mg/l እ h
	ity to daphnia and other tic invertebrates	:	EC50 (Daphnia m Exposure time: 48	agna (Water flea)): 0,035 mg/l 3 h
Toxic plants	ity to algae/aquatic s	•	NOEC (Pseudoki mg/l Exposure time: 9′	rchneriella subcapitata (green algae)): 0,04 I h
	ctor (Acute aquatic tox-	:	10	
icity) Toxic icity)	ity to fish (Chronic tox-	:	NOEC (Pimephal mg/l Exposure time: 32	es promelas (fathead minnow)): 0,00148 2 d
aquat	ity to daphnia and other tic invertebrates (Chron-	:	NOEC (Daphnia r Exposure time: 27	nagna (Water flea)): 0,0011 mg/l I d
ic tox M-Fa toxicit	ctor (Chronic aquatic	:	10	
Alum	inium silicate:			
	<b>Disticology Assessment</b> nic aquatic toxicity	:	No toxicity at the	imit of solubility.
	formaldehyde: ity to fish	:	LC50 : > 1 mg/l Exposure time: 96 Remarks: Based	ծ հ on data from similar materials

### SAFETY DATA SHEET



## **Amitraz Solid Formulation**

	evision Date: .09.2023		9S Number: 32042-00014	Date of last issue: 04.04.2023 Date of first issue: 06.06.2017			
Toxicity to daphnia and other aquatic invertebrates			<ul> <li>EC50 (Daphnia pulex (Water flea)): &gt; 1 mg/l Exposure time: 48 h Method: OECD Test Guideline 202 Remarks: Based on data from similar materials</li> </ul>				
Toxicity to plants	algae/aquatic	:	ErC50 (Desmodesmus subspicatus (green algae)): > 1 Exposure time: 72 h Method: OECD Test Guideline 201 Remarks: Based on data from similar materials				
Toxicity to icity)	fish (Chronic tox-	:	NOEC (Oryzias latipes (Orange-red killifish)): > 1 mg/l Exposure time: 28 d Remarks: Based on data from similar materials				
	daphnia and other ertebrates (Chron-	:	Exposure time: 2 Method: OECD T				
Toxicity to	microorganisms	:	EC50: > 10 mg/l Exposure time: 3 Method: OECD T	est Guideline 209			
			Remarks: Based	on data from similar materials			
Sodium bi Toxicity to	i <b>s(2-ethylhexyl)sul</b> fish	fos :	<b>uccinate:</b> LC50 (Danio reric Exposure time: 96	o (zebra fish)): 49 mg/l			
Toxicity to	fish daphnia and other	:	uccinate: LC50 (Danio rerio Exposure time: 90 Method: Directive	o (zebra fish)): 49 mg/l 5 h 67/548/EEC, Annex V, C.1. nagna (Water flea)): 6,6 mg/l			
Toxicity to Toxicity to aquatic inv	fish daphnia and other	:	uccinate: LC50 (Danio reric Exposure time: 96 Method: Directive EC50 (Daphnia m Exposure time: 48	o (zebra fish)): 49 mg/l 5 h 67/548/EEC, Annex V, C.1. nagna (Water flea)): 6,6 mg/l 3 h smus subspicatus (green algae)): 82,5 mg/			
Toxicity to Toxicity to aquatic inv Toxicity to	fish daphnia and other ertebrates	:	uccinate: LC50 (Danio reric Exposure time: 96 Method: Directive EC50 (Daphnia m Exposure time: 48 ErC50 (Desmode Exposure time: 72	o (zebra fish)): 49 mg/l 5 h 67/548/EEC, Annex V, C.1. nagna (Water flea)): 6,6 mg/l 3 h smus subspicatus (green algae)): 82,5 mg/ 2 h smus subspicatus (green algae)): 22 mg/l			
Toxicity to aquatic inv Toxicity to plants	fish daphnia and other ertebrates	:	uccinate: LC50 (Danio reric Exposure time: 90 Method: Directive EC50 (Daphnia m Exposure time: 40 ErC50 (Desmode Exposure time: 72 EC10 (Desmodes Exposure time: 72	o (zebra fish)): 49 mg/l 5 h 67/548/EEC, Annex V, C.1. hagna (Water flea)): 6,6 mg/l 3 h smus subspicatus (green algae)): 82,5 mg/ 2 h smus subspicatus (green algae)): 22 mg/l 2 h			
Toxicity to aquatic inve Toxicity to plants Toxicity to aquatic inve ic toxicity)	fish daphnia and other ertebrates algae/aquatic daphnia and other	:	uccinate: LC50 (Danio reric Exposure time: 96 Method: Directive EC50 (Daphnia m Exposure time: 48 ErC50 (Desmode Exposure time: 72 EC10 (Desmodes Exposure time: 72 EC10 (Daphnia m Exposure time: 22 Method: OECD T	o (zebra fish)): 49 mg/l 5 h 67/548/EEC, Annex V, C.1. hagna (Water flea)): 6,6 mg/l 3 h smus subspicatus (green algae)): 82,5 mg/ 2 h smus subspicatus (green algae)): 22 mg/l 4 h hagna (Water flea)): 9 mg/l 1 d est Guideline 211 onas putida): 164 mg/l			
Toxicity to aquatic inve Toxicity to plants Toxicity to aquatic inve ic toxicity) Toxicity to	fish daphnia and other ertebrates algae/aquatic daphnia and other ertebrates (Chron-	:	uccinate: LC50 (Danio reric Exposure time: 96 Method: Directive EC50 (Daphnia m Exposure time: 48 ErC50 (Desmode Exposure time: 72 EC10 (Desmodes Exposure time: 72 EC10 (Daphnia m Exposure time: 22 Method: OECD T EC50 (Pseudomo	o (zebra fish)): 49 mg/l 5 h 67/548/EEC, Annex V, C.1. hagna (Water flea)): 6,6 mg/l 3 h smus subspicatus (green algae)): 82,5 mg/ 2 h smus subspicatus (green algae)): 22 mg/l 4 h hagna (Water flea)): 9 mg/l 1 d est Guideline 211 onas putida): 164 mg/l			
Toxicity to aquatic inve Toxicity to plants Toxicity to aquatic inve ic toxicity) Toxicity to	fish daphnia and other ertebrates algae/aquatic daphnia and other ertebrates (Chron- microorganisms ce and degradabili	:	uccinate: LC50 (Danio reric Exposure time: 96 Method: Directive EC50 (Daphnia m Exposure time: 48 ErC50 (Desmode Exposure time: 72 EC10 (Desmodes Exposure time: 72 EC10 (Daphnia m Exposure time: 22 Method: OECD T EC50 (Pseudomo	o (zebra fish)): 49 mg/l 5 h 67/548/EEC, Annex V, C.1. nagna (Water flea)): 6,6 mg/l 3 h smus subspicatus (green algae)): 82,5 mg/ 2 h smus subspicatus (green algae)): 22 mg/l 2 h nagna (Water flea)): 9 mg/l 1 d est Guideline 211 onas putida): 164 mg/l			

### Sodium bis(2-ethylhexyl)sulfosuccinate:



Version 4.1	Revision Date: 30.09.2023		OS Number: 32042-00014	Date of last issue: 04.04.2023 Date of first issue: 06.06.2017
Biode	Biodegradability		Result: Readily b Biodegradation: Exposure time: 2	91,2 %
Bioad	cumulative potential			
Com	oonents:			
Amitı	az (ISO):			
Bioac	cumulation	:		is macrochirus (Bluegill sunfish) h factor (BCF): 1.333
	ion coefficient: n- ol/water	:	log Pow: 5,5	
Paraf	ormaldehyde:			
	ion coefficient: n- ol/water	:	log Pow: -1,40 Remarks: Calcul	ation
Sodiu	ım bis(2-ethylhexyl)su	lfos	uccinate:	
	ion coefficient: n- ol/water	:	log Pow: 1,998 Remarks: Calcul	ation
Mobi	lity in soil			
Com	oonents:			
Amitr	az (ISO):			
	oution among environ- al compartments	:	log Koc: 3,3	
Othe	r adverse effects			
No da	ata available			
SECTION	13. DISPOSAL CONSI	DER	ATIONS	
Dispo	osal methods			
Waste	e from residues	:		of waste into sewer.
Conta	aminated packaging	:	Empty container handling site for	cordance with local regulations. s should be taken to an approved waste recycling or disposal. specified: Dispose of as unused product.
SECTION	14. TRANSPORT INFO	RM	ATION	

<b>UNRTDG</b> UN number Proper shipping name	:	UN 3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (amitraz (ISO))
Class	:	9



Versi 4.1	ion	Revision Date: 30.09.2023	-	DS Number: 32042-00014	Date of last issue: 04.04.2023 Date of first issue: 06.06.2017
I	Labels	g group nmentally hazardous	: :	III 9 yes	
l	-	-	:	UN 3077 Environmentally f (Amitraz (ISO))	nazardous substance, solid, n.o.s.
	Labels	g instruction (cargo	:	9 III Miscellaneous 956	
ļ	Packing ger aird	g instruction (passen-	:	956 yes	
I	IMDG- UN nur Proper		:	UN 3077 ENVIRONMENTA N.O.S. (Amitraz (ISO))	ALLY HAZARDOUS SUBSTANCE, SOLID,
	Labels EmS C	g group ode pollutant	: :	9 III 9 F-A, S-F yes	
	-	bort in bulk according	-		OL 73/78 and the IBC Code

Not applicable for product as supplied.

### **Domestic regulation**

<b>ANTT</b> UN number Proper shipping name	:	UN 3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (amitraz (ISO))
Class	:	9
Packing group	:	
Labels	:	9
Hazard Identification Number	:	90

### Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

### **SECTION 15. REGULATORY INFORMATION**

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

National List of Carcinogenic Agents for Humans - (LINACH)	: Not applicable
Brazil. List of chemicals controlled by the Federal	: Calcium carbonate



Version 4.1	Revision Date: 30.09.2023		0S Number: 32042-00014	Date of last issue: 04.04.2023 Date of first issue: 06.06.2017
Police	e			
<b>The i</b> AICS		oduct		the following inventories:
DSL		:	not determined	
IECS	С	:	not determined	
SECTION	16. OTHER INFORM		1	
	sion Date format	:	30.09.2023 dd.mm.yyyy	
Furth	ner information			
comp	ces of key data used to bile the Material Safety Sheet			al data, data from raw material SDSs, OECD earch results and European Chemicals Agen- europa.eu/
Full t	ext of other abbrevia	tions		
ACGI BR O		:		hreshold Limit Values (TLV) Unhealthy activities and operations
ACGI	IH / TWA IH / STEL DEL / CEIL	:	8-hour, time-we Short-term expo Ceiling	
Land Carci Stand x% re ENCS x% g tem; 0 - Inte Equip centra cal S Mariti ganis centra Letha n.o.s. Conc Loadi Zeala ment; lative	of Brazil; ASTM - Am nogen, Mutagen or R dardisation; DSL - Dom esponse; ELx - Loadir S - Existing and New G rowth rate response; E GLP - Good Laborator ernational Air Transpo penent of Ships carryin ation; ICAO - Internatio substances in China; II ime Organization; ISH ation for Standardizati ation to 50 % of a test al Dose); MARPOL - I Not Otherwise Spect pentration; NO(A)EL - N ing Rate; NOM - Offici and Inventory of Chem ; OPPTS - Office of Ch and Toxic substance;	ericar eprod estic ng rat Chem RG - y Prac ort As g Dat y Prac ort As g Dat y	a Society for the ductive Toxicant Substances List e associated with ical Substances Emergency Res ctice; IARC - Inte sociation; IBC - ngerous Chemica Civil Aviation Orga- ivil Aviation Orga - International M dustrial Safety a ECI - Korea Exi lation; LD50 - Le ational Conventi Nch - Chilean N oserved (Adverse exican Norm; NTH OECD - Organiz al Safety and Pol CS - Philippines In	als; ANTT - National Agency for Transport b Testing of Materials; bw - Body weight; CMR ; DIN - Standard of the German Institute for (Canada); ECx - Concentration associated with th x% response; EmS - Emergency Schedule (Japan); ErCx - Concentration associated with ponse Guide; GHS - Globally Harmonized Sys rnational Agency for Research on Cancer; IATA International Code for the Construction and als in Bulk; IC50 - Half maximal inhibitory con anization; IECSC - Inventory of Existing Chemi faritime Dangerous Goods; IMO - International nd Health Law (Japan); ISO - International Or sting Chemicals Inventory; LC50 - Lethal Con ethal Dose to 50% of a test population (Medial on for the Prevention of Pollution from Ships form; NO(A)EC - No Observed (Adverse) Effect e) Effect Level; NOELR - No Observable Effect P - National Toxicology Program; NZIOC - New zation for Economic Co-operation and Develop lution Prevention; PBT - Persistent, Bioaccumu nventory of Chemicals and Chemical Substance Relationship: REACH - Regulation (EC) No



Version	Revision Date:	SDS Number:	Date of last issue: 04.04.2023
4.1	30.09.2023	1732042-00014	Date of first issue: 06.06.2017

Authorisation and Restriction of Chemicals; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TDG - Transportation of Dangerous Goods; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative; WHMIS - Workplace Hazardous Materials Information System

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 is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and shall not be considered a warranty or quality specification of any type. The information provided relates only to the specific material identified at the top of this SDS and may not be valid when the SDS material is used in combination with any other materials or in any process, unless specified in the text. Material users should review the information and recommendations in the specific context of their intended manner of handling, use, processing and storage, including an assessment of the appropriateness of the SDS material in the user's end product, if applicable.

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